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BUILDING A JUST WORLD
AND A SUSTAINABLE PLANET

Second Joint Finance-Health Task Force (JFHTF) Meeting

Pandemic Response Financing Gaps and Issues: Towards a Playbook

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CONTENTS

PANDEMIC RESPONSE FINANCING GAPS AND ISSUES: TOWARDS A PLAYBOOK[1]

EXECUTIVE SUMMARY

The recent COVID-19 pandemic inflicted devastating economic and health impacts, leaving no country untouched. While the response at the global level was unprecedented in scale and scope, many countries still struggled to adequately finance the response. Against this backdrop, in October 2021, recognizing the urgent need for enhanced finance and health collaboration and global cooperation, G20 members united to establish the Joint Finance-Health Task Force (JFHTF). This initiative aims to strengthen collaboration on pandemic prevention, preparedness, and response efforts worldwide.

This paper builds upon the mapping exercise outlined in the "Mapping Pandemic Response Financing Options and Gaps" prepared for the G20 Joint Finance – Health Ministerial Meeting, held on 19 August 2023. Under the 2024 JFHTF workplan this paper continues the pandemic financing work by updating the mapping exercise from August 2023, and provides an assessment of domestic response financing, macro-fiscal support in low-income countries (LICs) and middle-income countries (MICs), and of coordination challenges during the COVID-19 response. Finally, this assessment will also inform the development of an Operational Playbook, a tool for enhancing future pandemic responses.

Summary of August 2023 Mapping Pandemic Response Financing Options and Gaps

The landscape analysis conducted in August 2023 categorized pandemic response financing options into two levels: a) country-level and b) regional and global level. At the country-level, the analysis focused on contingent external financing and new external financing. At the regional and global level, the mapping exercise reviewed contingent financing and pre-committed grants, response-specific bilateral and multilateral support to countries, and at-risk financing to ensure access to medical countermeasures (MCMs).

Overall, the mapping exercise demonstrated the unprecedented financing response to COVID-19, however given the size and severity of the pandemic, several challenges were identified. Examples of these challenges include limited flexibility in accessing or utilizing financing (e.g., countries lacked mechanisms to draw on financing), delays in processing or utilizing funds, the absence of a mechanism to commit financing for 'at-risk' activities, and a lack of coordination and predictability, which impacted uptake. These challenges can and did have significant consequences, for example the lack of established arrangements for at-risk financing resulted in delays in access to vaccines for LICs and LMICs. Another key takeaway from the analysis was the need for improved coordination and greater transparency between countries and partners, as well as across partners.

1. This paper was prepared by staff from the World Bank and WHO in collaboration with the G20 JFHTF Secretariat. Significant contributions from the Center of Global Development are gratefully acknowledged. Sections of the paper are based on input from organizations involved in response financing, including the IMF, World Bank, Asian Development Bank, African Development Bank, Inter-American Development Bank, Asian Infrastructure Investment Bank, , WHO, UNICEF, Gavi, CEPI, and the Global Fund. The paper seeks to reflect available information regarding The European Investment Bank, FIND, and PAHO, but this information is not based on information provided directly from the respective organizations. Feedback on an earlier version of the paper from Italy, Indonesia. Brazil, and the JFHTF Secretariat is gratefully acknowledged.

The Evolving Response Financing Ecosystem

Since the 2023 mapping exercise there have been further developments in the financing of pandemics. Notably, new response financing instruments have been established, such as the World Bank Crisis Response Toolkit, designed to accelerate access to flexible financing for emergency response. More broadly, even in the absence of new dedicated financing tools or instruments, all actors involved in emergency response financing are actively integrating lessons from the COVID-19 response, which is expected to result in enhanced organizational capacities for future responses across all actors.

There have also been important developments on the MCM agenda based on active collaboration across a wide range of stakeholders including the G7 DFIs, the European Investment Bank (EIB), the International Finance Corporation (IFC), and other global and regional health organizations to collaborate and deploy innovative tools for MCMs surge financing. Moreover, Gavi has announced a new First Response Fund for early financing of vaccines. Although at an early stage, these developments represent important progress towards the goal of the "100 Day Mission",[2] and will be important for providing predictable financing and addressing some of the manufacturing bottlenecks identified during the COVID-19 pandemic.

However, gaps remain with regards to response financing. This includes the need for clarity and alignment on triggers for accessing different forms of financing, transparency regarding the eligibility of geographies and different types of expenditures from different financing sources, streamlining of processes for accessing and using response funding, among other considerations.

Domestic Financing: Issues and Opportunities

Under the right circumstances, domestic financing can offer advantages of speed and flexibility. Domestic financing is also critical for financing of operational costs, procurement, and other activities, in particular in contexts where there is limited access to external financing or where access to external financing is likely to be delayed. Two broad options for this financing exist, pre-arranged financing instruments (e.g. contingency funds, reserve funds, regional insurance mechanisms) and ex-post financing options (e.g. budget re-allocation, supplementary budgets). Yet, the COVID-19 pandemic exposed challenges in mobilizing domestic financing, including rigidities in access and utilization of funds, and insufficient guidance and protocols for reallocation and the use of contingency and emergency funds. For example, many countries relied on budget reallocations and revisions to support the COVID-19 response. However, reallocating financing requires a certain degree of budget flexibility that proved difficult in many countries. In addition, reallocations require cuts to other areas of the budget, which can have adverse consequences, particularly when done quickly and under pressurized contexts. These examples underscore the urgent need for more effective strategies in mobilizing domestic financing during pandemics, combined with reforms to public financial management to ensure financing systems are crisis-ready.

2. The '100 days mission', launched by CEPI in 2021, aims to cut vaccine development time for new pathogens to 100 days from the moment a pathogen is sequenced and/or needed to initial availability for use.

Ensuring equitable access to Medical Countermeasures

The COVID-19 pandemic also underscored the critical need for timely and equitable access to medical countermeasures (MCMs), such as diagnostics, therapeutics, and vaccines. Global Health Initiatives, including the Access to COVID-19 Tools (ACT) Accelerator and the COVAX Facility, played key roles in enhancing the availability and distribution of these MCMs, raising over US $12 billion to secure nearly 2 billion doses of vaccines for LICs. However, disparities persisted, with LICs administering far fewer doses than HICs by the end of 2021. Contributing factors included lack of financing for LICs and LMICs, global supply chain disruptions, manufacturing supply constraints, lack of coordination around donations and delivery, insufficient logistical and deployment capacity, vaccine hesitancy and demand issues, and vaccine nationalism. However, delayed access to financing in LICs and LMICs was one of the most important constraints. There is already a great deal of momentum, including by the G7 DFI Collaborative, IFC, Gavi and others to address these issues, which collectively aim to strengthen coordination platforms for research, development, manufacturing, procurement and financing of MCMs. Yet, questions regarding financing sources, procurement coordination, and risk management remain, emphasizing the need for pre-committed resources and streamlined global cooperation to mitigate the impacts of future pandemics and thus reduce their social and economic costs.

Financing the Macro & Fiscal Response

The COVID-19 pandemic had severe economic impacts on the global economy. Behavioral responses to the pandemic, combined with early containment measures represented profound shocks to households and economies. Multilateral Development Banks (MDBs), including the World Bank, the Asian Development Bank (ADB), the African Development Bank (AfDB), the Inter-American Development Bank (IADB), the European Bank for Reconstruction and Development (EBRD), and the Asian Infrastructure Investment Bank (AIIB), adapted their strategies to provide budget support in response to COVID-19. Both the International Monetary Fund (IMF) and MDBs took unprecedented action to provide support to countries during the COVID-19 pandemic. In the case of the IMF, the primary instruments used were the Rapid Credit Facility (RCF) and the Rapid Financing Instrument (RFI), which facilitated immediate financial assistance and quick disbursement without the stringent conditions typical of IMF programs. The World Bank and other MDBs also leveraged budget support instruments to provide support the broader social and economic response to the COVID-19 response. Notwithstanding the importance of these resource flows, challenges related to implementation capacity, governance and transparency were noted, highlighting the complexities involved in deploying a global financial safety net during unprecedented times. This suggests room for improvement, with recent evaluations arguing for the need for a clearer strategy on crisis response across development partners and a more cohesive playbook for managing such crises, drawing on lessons from past crises and current challenges.

Looking ahead: towards a response financing playbook

The Operational Playbook is intended to provide a comprehensive overview of response financing tools and instruments, describe how various tools complement one other in addressing critical needs under different scenarios, and propose key processes and platforms for ensuring timeliness and coordination. In addition to being a tool for guiding and enhancing future pandemic responses, the Operational Playbook will also provide the basis for iterative efforts to identify and address gaps and shortcomings in the response financing ecosystem.

ACRONYMS

ACT-A	Access to COVID-19 Tools Accelerator
ADB	Asian Development Bank
AfDB	African Development Bank
AIIB	Asian Infrastructure Investment Bank
AMC	Advanced Market Commitments
APA	Advanced Purchase Agreements
AVAT	Africa Vaccine Acquisition Trust
CAT DDO	Catastrophe Deferred Drawdown Option. An instrument of the World Bank
CCF	Contingent Credit Facility
CEPI	Coalition for Epidemic Preparedness Innovations
CFE	Contingent Fund for Emergencies
COVAX	COVID-19 Vaccines Global Access
CRF	Crisis Response Facility
CRBS	Crisis Response Budget Support
DFI	Development Finance Institution
DFC	The United States International Development Finance Corporation
DPF	Development Policy Financing
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
FCV	Fragile, conflict, and violence
GAVI	Global Alliance for Vaccines and Immunization
GF	Global Fund
GHIs	Global Health Initiatives (e.g., GAVI, CEPI, Global Fund)
HIC	High-Income Country
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
IFC	International Finance Corporation
IHR	International Health Regulations
IMF	International Monetary Fund
JFHTF	Joint Finance-Health Task Force
LIC	Low-Income Country
LMIC	Lower-Middle-Income Country
MCM	Medical Countermeasures
MDB	Multilateral Development Bank
MIC	Middle-Income Country

MIGA	Multilateral Investment Guarantee Agency
PEF	Pandemic Emergency Financing Facility of the World Bank
PBF	Policy-Based Financing
PFM	Public Financial Management
PPR	Pandemic Prevention Preparedness and Response
PRGT	Poverty Reduction and Growth Trust
R&D&M	Research, Development, and Manufacturing
RBL	Results-Based Lending
RCF	Rapid Credit Facility
RFI	Rapid Financing Instrument
SDR	Special Drawing Rights
SFF	Supplies Financing Facility
TSF	Transitional Support Facility
UNICEF	United Nations Children's Fund
VII	Vaccine Independence Initiative
WHO	World Health Organization
WBG	World Bank Group
XVax	XVax Initiative

I. INTRODUCTION

Background and rationale

In October 2021, under the Italian G20 presidency, G20 members agreed to establish a Joint Finance-Health Task Force (JFHTF) with the aim of enhancing the collaboration and global cooperation on issues relating to pandemic prevention, preparedness, and response. Specifically, the JFHTF was set up to promote the exchange of experiences and best practices, develop coordination arrangements between Finance and Health Ministries, and promote collective action and encouraging effective stewardship of resources to address the existing financing gaps in pandemic preparedness and response.

In 2022, the JFHTF came together in support of the establishment of the Pandemic Fund, an innovative financing mechanism currently concentrating on strengthening prevention of and preparedness for future pandemics. Moreover, building on the 2021 Rome Declaration, the Task Force was given a mandate to continue developing 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 prepared a paper on "Mapping Pandemic Response Financing Options and Gaps" for the G20 Joint Finance – Health Ministerial Meeting, 19 August 2023. The paper provided a landscape assessment of the financing sources and instruments that supported the health response in the context of the COVID-19 pandemic, assessing availability, functionality, and coordination of these options.

This paper carries forward the work on response financing under the 2024 JFHTF work plan, with a focus on (i) updating the mapping exercise from August 2023 to reflect recent and ongoing developments related to response financing tools and instruments; (ii) complementing the prior analysis with more extensive descriptions and assessments of domestic response financing, financing for medical countermeasures, support for the macro-fiscal support in LICs and MICs, and lessons from coordination challenges in the context of the COVID-19 response. In doing so, the paper seeks to identify remaining gaps in the response financing ecosystem, considering coordination, timeliness, predictability, transaction costs, and scalability.

The analysis and assessment in this paper, along with parallel work on pandemic simulations and the health, will provide the foundation for an "Operational Playbook", which will be developed for the JFHTF meeting in September 2024. The Operational Playbook is intended to provide a comprehensive overview of response financing tools and instruments, describe how various tools complement one other, and propose processes and platforms for ensuring timeliness and coordination. The Operational Playbook will complement other deliverables, including a planned report on the social, economic, vulnerabilities and risks related to pandemics.

Aims and Approach of this Paper

The aims of this paper are as follows:

- Update the landscaping of response financing from the August 2023 paper with a more comprehensive picture of financing instruments and tools that were used to support the COVID-19 health response.
- Describe new financing tools and instruments that have been developed since 2023 or are being considered to support future health responses. This will include a discussion of financing and procurement of MCMs in the context of a pandemic.
- Review options for rapid domestic response financing and identify gaps and other challenges that should be addressed based on the COVID-19 experience.
- Provide an overview of instruments and tools for supporting the macro-fiscal response to the COVID-19 pandemic in LICs and LMICs, with a focus on the IMF and MDBs.
- Outline the scope and objectives of a "Operational Playbook" on response financing and propose an approach and timeline for its finalization.

The content of the paper is based on structured feedback from key actors involved in pandemic response financing, review of published and grey literature, and targeted consultation with key stakeholders.

It should be noted that this paper has been prepared in a very dynamic context, with several ongoing processes that are likely to have important implications for the Operational Playbook, including the ongoing negotiations on a Pandemic Treaty and revisions to the International Health Regulations (2005). Moreover, many organizations involved in pandemic response financing, including MDBs, GHIs and bilateral donor agencies, are still in the process of implementing reforms and developing new tools and instruments based on the lessons learned from COVID-19. As a result, the assessment of gaps and needs in the pandemic response ecosystem remains incomplete, highlighting the need to approach the proposed Operational Playbook as a flexible and evolving process.

A note on terminology and definitions

Pandemic: Disease outbreak that spreads across countries and/or continents (beyond a regional outbreak).

Pandemic emergency: A communicable disease that has, or is at high risk of having, wide geographical spread to and within multiple States, exceeds or is at high risk of exceeding the capacity of health systems to respond in those States; causes, or is at high risk of causing, substantial social and/or economic disruption, including disruption to international traffic and trade; and requires rapid, equitable and enhanced coordinated international action, with whole-of-government and whole-of-society approaches.[3]

Day Zero: The initial day a pathogen, capable of causing severe disease with pandemic potential, is identified. In some contexts, Day Zero has been defined as the date when a Public Health Emergency of International Concern (PHEIC) is declared.[4]

Day Zero financing: A global security initiative to ensure sufficient pre-committed funds are immediately available at the onset of the next pandemic for medical countermeasures and 'at-risk' investments, facilitating a timely, equitable, and coordinated global response.[5]

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.

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: Financial commitments made under conditions where there is a significant risk that the payment will be made regardless of whether the product or service ultimately meets regulatory approval or demand estimates. This type of financing is often necessary to ensure early access to scarce products during emergency situations like a pandemic.

Response: ex-post actions taken as a result of a disease outbreak to reduce its economic, social, and health impacts.

3. The term 'pandemic' had been ambiguously defined, leading to issues with its application (or lack thereof) as a trigger for financing options and potential inconsistency with International Health Regulations (IHR). As of June 1, 2024, one of the new amendments to the IHR includes a definition of 'pandemic emergency.'

4. This is a technical definition proposed for this paper. We are not aware of a settled definition of "day zero" but acknowledge that it has been defined differently elsewhere, including PHEIC declaration or a pre-agreed number of deaths from a pathogen.

5. Ruchir Agarwal. 2024. "What Is Day Zero Financing? A Global Security Perspective for Pandemic Response." CGD Note 365. Washington, DC: Center for Global Development. https://www.cgdev.org/publication/ what-day-zero-financing-global-security-perspective-pandemic-response.

II. KEY AGENDAS IN PANDEMIC RESPONSE FINANCING

A Recap of the August 2023 "Options and Gaps paper"

The August 2023 paper aimed to conduct a mapping exercise of the financing options for responding to pandemics that existed at the time.[6] It reviewed both the availability and functionality of financing options, including how well they were coordinated. The paper considered financing across two levels: 1) Country level, which includes 1.1: Domestic emergency response financing and non-contingent external financing (mostly out of scope of the analysis); 1.2: Contingent external financing; and 1.3: 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. It provided a mapping of the financing options to respond to pandemics based on experience of the COVID-19 response, and explored the availability and functionality of financing options, as well as how well they were coordinated (see **Annex 1**).

Key conclusions from the paper were as follows:

- Countries' first line of defense includes domestic emergency response financing through the national budget, and non-contingent external financing from IFIs and bilateral sources. Domestic financing was not considered in-depth in this earlier version of the paper, but the paper noted that less than 40 percent of G20 countries have dedicated pre-existing contingency financing mechanisms for the health crisis response. Moreover, most non-contingent donor financing at country level was already allocated or earmarked at the time of a pandemic, with limited flexibility to use in a pandemic response.

- 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. Key challenges were that: financing was intended for limited use and time periods; not all countries had the mechanisms in place to draw on this financing; and that countries experienced delays in processing and use of funds due to lack of readiness or country reluctance to divert financing for planned uses, especially given the uncertainty of grant financing. Finally, a key limitation was the need for replenishment of diverted funds, both at the level of country's financing envelopes and at the level of the institution. This replenishment is needed to prevent unintended consequences for other development outcomes.

- The paper also noted the delays in both contingent funds and reprogrammed resources, leading to important financing gaps in the first 28 days.

6. "Mapping Pandemic Response Financing Options and Gaps", developed by World Health Organization and the World Bank for the G20 Joint Finance and Health Ministerial Meeting, 19 August 2023.

- New financing for COVID-19 was made available in part through appeals. The mobilization of new financing was unprecedented in volume and speed. However,

- there were problems with coordination across modalities and limited predictability across institutions.

- Unprecedented new financing was also made available by MDBs, either through reallocation or frontloading (in the case of IDA, whereby the IDA20 replenishment was brought forward by one year). There were also many financing innovations to make financing faster than regular operational financing, including streamlined operational processes and delegated approvals.

- Despite these developments across a range of instruments, financing at scale was not fast and predictable enough nor equitably available. In some cases, financing was not aligned with country response needs, both in terms of magnitude and in terms of the types of mechanisms. This mismatch was largely due to the fact that different financing categories require different financing mechanisms, the absence of well-designed triggers, or suffer from earmarking or specific rules that limit flexibility. Moreover, challenges with coordination across financing sources and alignment with country priorities were common.

- Large volumes of financing were mobilized for the procurement and distribution of MCMs, both through appeals and through the expanded response financing by MDBs. However, much of this financing did not come fast enough. A key gap was the absence of a mechanism to commit financing for 'at-risk' activities such as research and development and manufacturing, and advance purchase and/or pooled procurement of medical countermeasures prior to vaccines being approved.

- The lack of established arrangements for at-risk financing resulted in delays in access to vaccines for LICs and LMICs. For countries, uncertainties regarding the volume of grant and concessional resources complicated decisions regarding vaccine acquisition. Coordination across financing sources and procurement platforms was also inadequate.

The Evolving Response Financing Ecosystem

As the world faces multiple intertwined crises, there is an improved understanding that disease outbreaks and health emergencies are not rare events and that risks are increasing due to climate change, urbanization, degradation of the natural environment and other factors. The COVID-19 pandemic triggered a wide range of efforts by global health actors to build on experiences and innovations to scale and accelerate response financing, and to put in place tools and instruments that will enhance response capacities for future pandemics.

This section provides an overview of key developments since the preparation of the August 2023 "Options and Gaps" paper. It builds on material in the public domain as well as input from MDB, Global Health Institutions and UN agencies. Key response financing enhancements, summarized in **Table 1**, include the development of new instruments and tools, as well as the emergence of platforms for coordination (see details in **Annex 2**). Moreover, the scope of the assessment is expanded relative to the August 2023 Options and Gaps paper to cover the role of DFIs and guarantee instruments, recognizing the important role that they played in the COVID-19 response and the enhanced capacities that are being developed (for illustration, see **Box 1** on the role of IFC and MIGA in the COVID response).

Box 1. IFC and MIGA support to the COVID-19 Response

In response to COVID-19, IFC and MIGA supported both the broader economic response and the health response by providing financial support and risk mitigation to private sector clients. Both organizations work in regions or industries that are considered risky by other traditional lenders and can provide a mix of tools, including financing on terms that may be more attractive than commercial banks, risk-sharing mechanisms and guarantees, technical assistance and advisory services, market knowledge and networks, and sustainability and impact investing. These better terms and the additional support available (including through trust funds from donors) is very attractive to private providers.

In addition to IFC's $8 billion fast-track financing facility, which targeted the economic response, IFC's Global Health Platform (US$4 billion), launched on July 29, 2020, was designed to increase the private sector's capacity to provide essential products and services, including vaccines, and to build resilience in low- and middle-income countries to future pandemics. This included financial support to private sector providers, capacity strengthening for manufacturing supplies (personal protective equipment, ventilators, testing kits, etc.), infrastructure upgrades, technical assistance, and knowledge sharing. Support was also provided financing to pharmaceutical companies and manufacturers to support expansion of manufacturing capacity and the procurement of raw materials. This type of support from IFC was important for private providers to increase access to capital as they look to expand their operations, invest in new projects or enter into new markets.

On April 7th, 2020, MIGA launched a US$6.5 billion fast-track facility to help investors and lenders tackle different phases of the COVID-19 crisis: the first response, recovery phase, and long-term resilience to support investment. MIGA provides support to the private sector and the public sector, and often works hand-in-hand with IFC on private sector investments or public-private partnerships. Credit enhancements were designed to help governments mobilize international capital on better terms by reducing the risk of non-payment by a government enterprise (e.g. Bogota's COVID-19 response and healthcare infrastructure strengthening ($US 350 million), and the Bahamas modernization of the public health system ($US115 million)). This instrument is best suited for medium to long-term investments and is available for countries meeting MIGA's eligibility requirements (e.g., credit ratings of BB- or above). MIGA also has a Trade Finance instrument that allows countries to mobilize rapid and coordinated response financing and facilitate the flows of medical goods and equipment, as the MIGA guarantee gives suppliers the confidence to reach an agreement with that public agency. Together, both IFC and MIGA were involved in a Global Trade Finance Program, which supported small and medium-sized enterprises involved in global supply chains.

Table 1. Key Response Financing Developments and Considerations

	Key developments	Issues & considerations
MDBs	• New World Bank Crisis Response Toolkit to expand and accelerate access to flexible financing for emergency response, including scaled up contingent financing. • Enhanced capacity to utilize instruments of MDBs through consolidation of experience and /flexibilities from COVID response – e.g. IADB Contingent Credit Facility as well as guarantees and AfDB Crisis Response Budget Support.	• Operational details of new Toolkit still to be developed and stress-tested. • Uncertain client demand for contingent new financing instruments. • Volume of financing available under different scenarios not known.
UN agencies	• WHO Contingent Fund for Emergencies – no significant change. • United Nations' Central Emergency Response Fund (CERF) and Country Based Pooled Funds (CBPF) – no significant change. • UNICEF will leverage existing platforms, including Vaccine Independent Initiative (VII) which accelerated delivery by addressing cash-flow delays, and Supplies Financing Facility to maintain capacities in MCM financing, procurement, and delivery.	• New WHO instruments and capacities may emerge from Pandemic Treaty and IHR revisions. • UNICEF VII is currently under review and will approach its Executive Board in 2025 for any additional permission, to the extent they are needed, including for pandemic response.
GHIs	• Gavi will launch First Response Fund (subject to Board approval), with $500M in risk capital, complemented by $2bn liquidity facilities with DFC and EIB. • CEPI is mapping funders and instruments across the Vx value chain and is conducting a modelling exercise to identify high-impact preparedness investments. • Global Fund has capacity to rapidly channel re-prioritized and new flexible financing to countries.	• Likely emergence of capacity for AMC for MCM, but limited financing relative to expected need. • Enhanced MCM R&D&M platforms for financing, technical leadership, and coordination.
Regional initiatives	• Africa Epidemics Fund established in 2022. • The ASEAN COVID-19 Response Fund (CARF) has been expanded and converted into the ASEAN COVID-19 and other Public Health Emergencies and Emerging Diseases ASEAN Response Fund	• Operational details, including financing sources for Africa Epidemics Fund still be established. • ASEAN Member States are currently discussing modalities to better utilize the Fund (governance, fund management, resource mobilization, etc.) •

DFIs & MIGA	• DFI MCM Surge Financing Initiative is creating a framework for G7 DFIs to collaborate and deploy innovative financing tools to expand access of medical countermeasures for LICS and MICS. This includes:
	  • Liquidity Facility to frontload donor financing for MCM / AMCs.
	  • Working Capital Facility to enhance coordination and provide working capital for MCM production in a response context.
		• Timeline for operationalization of DFI tools and instruments uncertain (MOU to be finalized by 2024 UNGA).
		• Mechanisms for distributing risks associated with frontloading of financing and working capital need to be clarified.

Governance & coordination	• Coordination platforms exist in humanitarian space and are emerging in R&D&M and DFI space but limited for broader response financing. • Limited progress on defining and coordinating triggers for timely access to response financing and other actions. • Lusaka agenda as a foundation for coordinated action to support long-term vision of domestically financed health systems and UHC with mutual accountability across stakeholder groups.	• Enhanced coordination response financing platforms and alignment on financing triggers would facilitate and accelerate future responses. • Coordinated country response plans with anticipated financing needs could facilitate commitment of contingent.

The above summary presents a mixed picture of progress. On the MDB side, the World Bank recently approved its Crisis Preparedness and Response Toolkit, which aims to provide faster, pre-arranged liquidity, although important details regarding scale, country demand, and operationalization are still to be determined (see details in **Annex 3**). In the case of other MDBs, lessons from the use of existing instruments to support COVID-19 response, including in relation to required flexibilities and organizational processes, are being consolidated with the aim of making future responses faster and more effective. These are significant developments that will enhance future emergency responses. Similarly, although there are few examples of new financing tools or instruments in the case of other sources of flexible financing for the health response, including from the WHO CFE, UNICEF and other UN agencies, the Global Fund, and bilateral donors, the integration of lessons and consolidation of instruments from the COVID-19 response is expected to enhance support in future response scenarios. There have also been important developments on the MCM agenda based on active collaboration across a wide range of stakeholders which are discussed in more detail below.

There have been fewer developments with regards to the governance and coordination of health emergency responses. There are established coordination platforms – e.g. to coordinate humanitarian responses, response workforce, surveillance, MCM and other issues (see **Annex 4**). Many of these platforms were adapted and played a role in the COVID-19 response, but there has been limited systematic assessment to determine how they can be strengthened, leveraged, or aligned going forward. The Access to COVID-19 Tools Accelerator (ACT-A), launched in April 2020, represented an important ad hoc coordination and collaboration platform aimed at accelerating the development, production, and equitable distribution of COVID-19 tests, treatments, and vaccines. Notwithstanding achievements, ACT-A faced significant challenges in achieving effective coordination within and between the different pillars of ACT-A (vaccines, diagnostics, therapeutics, and health systems), resulting in delays and operational inefficiencies.[7] With regards to triggers to access contingent financing, there are clear principles on what is required (see **Box 2**), but there have been no significant developments in terms of alignment and ensuring early access. Finally, with the closure of the Pandemic Emergency Financing Facility (PEF) in October 2021, a tool for response financing and coordination was lost (see **Annex 5**).

7. https://www.who.int/publications/m/item/external-evaluation-of-the-access-to-covid-19-tools-accelerator-(act-a).

Box 2. Designing effective parametric triggers for pandemic response financing

One of the critical challenges identified in pandemic response financing, as discussed in the August 2023 "Options and Gaps" paper, pertains to the significant delay in accessing funds and the absence of mechanisms for early frontloading of financial instruments. This delay is primarily attributed to the lack of early pledges or pre-agreed, triggered funding instruments at regional and global levels. Addressing this gap requires the establishment of clear and aligned triggers for accessing various forms of financing during pandemics. This box emphasizes the critical role of effective trigger design in rapidly disbursing funds and minimizing excessive payouts.

Definition and justification of parametric triggers: A parametric trigger sets out criteria for the release of capital based on predefined parameters (e.g., pathogen-specific thresholds, severity of an event, numbers of cases and deaths, etc.). The rationale lies in enabling rapid payout, crucial in epidemic and pandemic containment efforts, as demonstrated during the COVID-19 crisis. This approach contrasts with indemnity triggers, which activate after losses have already occurred and disburse funds in months or years after an event. Early implementation of containment measures, including disease control measures and rapid distribution of MCMs, made feasible by prompt disbursements via parametric trigger mechanisms, possess large potential for reducing the human and economic losses during such crises.

Requirements for effective trigger design, as highlighted by Madhav and Oppenheim (2024), include simplicity, transparency, verifiability, objectivity, and pre-agreement. A complex trigger may lead to delays and foster mistrust, particularly if it relies on subjective criteria, complicating efforts to model and inform trigger structures. Further, simplifying trigger design reduces confusion, transparency ensures access to data and calculations for the trigger threshold, verifiability confirms payout conditions, objectivity ensures consistency in measurement factors, and pre-agreement prevents delays and confusion during trigger assessment. However, even meeting these criteria presents challenges. For example, objective criteria and parameters, such as case or death rates, may pose challenges due to limited capacity to accurately detect and confirm cases and deaths in resource-constrained settings where disbursement is most needed. Moreover, triggers are susceptible to moral hazard, potentially leading to the relaxation of control measures until the trigger conditions are met. Thus, designing triggers requires iterative exploration to balance various criteria and stakeholder interests, both public and private, with specific mechanisms, parameters, and steps to be developed.

Additionally, gaining a better understanding of the subset of pathogens that can potentially lead to a pandemic emergency (and thus cause a health and macroeconomic crisis) would be valuable. While a comprehensive review of pathogen families that can cause major crises is likely beyond the scope of this document, such a review represents a relevant area for further research to advance the discussion and design of potential triggers for response financing schemes.

Domestic Financing: Issues and Opportunities

The August 2023 Gaps and Options paper highlighted the importance of domestic financing for the health response. Under the right circumstances, domestic financing can offer advantages of speed and flexibility – critical attributes during the initial phases of an outbreak. This includes "rapid outbreak financing" to provide small, rapid disbursements to entities involved in outbreak investigations and initial response activities to enable early action against a potential disease threat.[8] Domestic financing is also critical for financing of operational costs, procurement, and other activities, in particular in contexts where there is limited access to external financing or where access to external financing is likely to be delayed. Yet, the COVID-19 pandemic exposed significant weaknesses in the capacity to mobilize and use domestic financing quickly, with many countries lacking adequate mechanisms to respond to outbreaks. Hence, when the crisis hit, fiscal constraints, rigidities in access and utilization of funds, and insufficient guidance and protocols for reallocation and the use of contingency and emergency funds hampered the response.

Type	Mechanism	Requirements	Benefits	Trade-offs
Pre-arranged financing	**Reserve fund**	Available resources to put aside	Rapid access to resources	Opportunity cost of idle funds
	Contingency budget line	Allocation within the annual budget	Rapid access to resources	Limited financing and oversight; potential delays in triggering.
	Contingency credit	Access to credit line from MDB	A lot of money quickly; access to expanded IDA space	Ties down a lot of available IDA for countries when not used
	Rapid outbreak financing	Budget line with relevant ministry / agency for rapid outbreak investigation and mechanisms that allows rapid disbursement	Small rapid disbursements for outbreak investigation and early response	Limits to available resources, opportunity cost of idle funds, effectiveness moderated by capacity to detect threats and domestic PFM
	Regional insurance mechanism	Willingness for pooling amongst regional peers	Quick access to resources; appropriate costing	High cost, limited market
Ex-post financing	**Reallocation of budget**	Crisis-ready PFM systems that anticipate the need for disaster response and allow flexibility to reallocate resources	Access to resources without earmarked allocation or flexible budget rules and allocation	Limits to available financing; opportunity cost of foregone expenditures
	Supplementary budget	Crisis-ready PFM systems that anticipate the need for disaster response and allow flexibility to reallocate resources	Access to resources with oversight, not constrained to the initial budget	Compromise budget credibility, increase debt
	Issuance of new debt	Access to capital markets; favorable interest rates	No opportunity cost to park capital	Takes time; can be costly depending on credit rating

8. Evidence from across Africa demonstrates that rapid outbreak financing pilots have been critical in providing early, flexibly financing. For instance, in Nigeria, rapid outbreak financing allowed for rapid disbursement to the Nigeria CDC during COVID-19. In fact, it was the only financial mechanism that was readily available and accessible until May 2020. Building on its success during COVID-19, similar mechanisms have been established at subnational level with financing from the Public Health Emergency and Outbreak Response Fund, marking its transition to government ownership. See https://preventepidemics.org/wp-content/uploads/2024/04/Rapid-Outbreak-Financing-to-Prevent-Epidemics-April-2024-Technical.pdf

In considering domestic response financing options, it is helpful to distinguish between pre-arranged and ex-post financing (see **Table 2**). Pre-arranged financing includes reserve funds, contingency budget lines, and rapid outbreak financing, and insurance mechanisms. Conversely, ex-post financing options include emergency or contingency funding, budget reallocations or new appropriations, or issuance of new debt.[9]

Pre-arranged financing was utilized during the COVID-19 pandemic, albeit not without challenges, as witnessed in several countries. Contingency funds are accessible under specific conditions defined by the PFM legal framework, with the release of emergency funds typically requiring a declaration of an emergency or similar trigger. In South Africa, emergency funds were the first mechanism activated in March 2020 to fund the emergency response, with the Provincial Disaster Relief Grant (PDRG) activated through the declaration of a national or regional disaster.[10] Similarly in Costa Rica, funds were released from the National Emergency Fund and the Contingency Fund of the Costa Rican Social Security Fund after a state of emergency was announced in March 2020. However, a survey conducted by WHO revealed that emergency protocols and guidance often lacked clarity on their usage, creating bottlenecks in accessing these funds. Therefore, it is critical to establish transparent guidelines and rules regarding the criteria for accessing the fund, the allocation and disbursement of funds, and monitoring and reporting requirements.

Regional insurance mechanisms are not common, but they are another form of pre-arranged financing designed to mitigate common risks across a region. The first regional mechanism using parametric insurance was established in the Caribbean where natural disasters and catastrophes pose significant risks to the region. In response to these common risks, the Caribbean Catastrophe Risk Insurance Facility was established in 2007 to mitigate the impacts of natural disasters. Through this insurance mechanism, governments pool natural disaster risks, and provide swift access to financing once a policy has been triggered. This liquidity is critical during emergencies, while also affording government the flexibility to mobilize funding from other sources. However, its applicability to disease outbreaks may be limited by the complex and dynamic nature of such events, as well as challenges in accurately defining and quantifying trigger conditions. In addition, the level of incentives for countries to engage in risk pooling for epidemics or pandemics varies significantly depending on their size and capacity, introducing additional complexities.[11]

9. CABRI. 2021 "Budgeting in the context of COVID-19: Trends and tools of reallocations" CABRI, Centurion.

10. WHO. 2022 "Public financial management for effective response to health emergencies. Key lessons from COVID-19 for balancing flexibility and accountability." World Health Organization, Geneva.

11. Fan, Victoria Y., Kim, Sun., Pineda, Diego., Bertozzi, Stefano M. (2024). Disease Control Priorities 4th Edition, Volume 2, Pandemics. Chapter 15. Pandemic Financing: Prevention, Preparedness, Response and Reconstruction.

Most countries relied on budget reallocations and revisions (through transfers between budget items, reprioritization of expenditures, or a supplementary budget) to support the COVID-19 response.[12] Reallocating financing requires a certain degree of budget flexibility, with PFM rules and processes determining the scope and ease of reallocating funding towards the health response.[13, 14] For example, in some contexts, countries can leverage existing budget flexibilities such as virements and program-based budgets (e.g. South Africa, Mexico) to quickly create budget space. Through existing budget structure, Mexico was able to integrate a COVID-19 subprogram under the Department of Health program. In other contexts, countries used emergency decrees, granting the executive powers to rapidly re-allocate spending towards the emergency response. Sometimes, this may require parliamentary approval and other time-consuming processes.[15, 16, 17] Either way, reallocations require cuts to other areas of the budget; experience has shown that across the board, cuts do not produce desirable impacts, and care must be taken to prevent adverse consequences.[18]

Countries have also relied on supplementary budgets to meet additional funding requirements.[19] However, he formal and cumbersome approval process can prevent its effective use, often requiring countries to develop, cost, and approve supplementary budget plans. This process can also involve the legislature (e.g. Philippines).[20, 21] As a result, supplementary budgets may not mobilize funding fast enough for an emergency response. While not common, there are examples of countries where the executive branch permitted by existing PFM laws employed quick approval processes to approve supplementary budgets. For example, in Cameroon, which operates under a presidential system, parliamentary oversight was entirely circumvented and the 2020 budget was revised through a presidential decree.[22]

12. Allan, S. & Bayley, E. (2023) 'Opportunity Cost of Covid-19 Budget Reallocations. Cross-Country Synthesis'. Centre for Disaster Protection Report, London.

13. CABRI. 2021 "Budgeting in the context of COVID-19: Trends and tools of reallocations" CABRI, Centurion.

14. IMF. 2020. Special Series on COVID-19. "Budgeting in a Crisis: Guidance on Preparing the Budget 2021." International Monetary Fund, Washington, DC.

15. WHO. 2022 "Public financial management for effective response to health emergencies. Key lessons from COVID-19 for balancing flexibility and accountability." World Health Organization, Geneva.

16. In certain cases, parliamentary approval would be sought out ex-post (IMF budgeting during crisis). For example, the Philippines was granted authority to adopt temporary measures to reprioritize funding from other parts of the budget towards the COVID-19 response (WHO). Similarly, pre-existing PFM laws in WAEMU and CEMAC countries have used these measures to accommodate urgent reprioritization under specific circumstances (IMF).

17. IMF. 2020. Special Series on COVID-19. "Budgeting in a Crisis: Guidance on Preparing the Budget 2021." International Monetary Fund, Washington, DC.

18. IMF. 2020. Special Series on COVID-19. "Preparing public financial management systems for emergency response". Available at: https://www.imf.org/-/media/Files/Publications/covid19-special-notes/special-series-on-covid19-preparing-public-financial-management-systems-for-emergency-response.ashx

19. WHO. 2022 "Public financial management for effective response to health emergencies. Key lessons from COVID-19 for balancing flexibility and accountability." World Health Organization, Geneva.

20. WHO. 2022 "Public financial management for effective response to health emergencies. Key lessons from COVID-19 for balancing flexibility and accountability." World Health Organization, Geneva.

21. IMF. 2020. Special Series on COVID-19. "Budgeting in a Crisis: Guidance on Preparing the Budget 2021." International Monetary Fund, Washington, DC

22. CABRI. 2021 "Budgeting in the context of COVID-19: Trends and tools of reallocations" CABRI, Centurion.

As part of a pandemic response, private creditors can serve as crucial source of funding during emergency responses. For countries with access to capital markets, issuance of new debt was a common mechanism for financing the COVID-19 response. However, leveraging private creditors can be challenging due to the perceived risks associated with lending to certain countries. To overcome these challenges, instruments such as policy-based guarantees, offered by the World Bank and other MDBs, can help to leverage private capital. By offering guarantees, these institutions mitigate the perceived risks incentivizing private creditors to issue new financing. Despite their potential, these guarantees are often underutilized. However, guarantees can be an important instrument in mobilizing private capital for pandemic response.

Experiences from the COVID-19 pandemic point to key actions for strengthening the capacity of countries to mobilize and deploy domestic financing in the context of an emergency. This includes:

- Developing guidance for transparently reprioritizing funding when responding to emergencies. This could include identifying areas of protected spending, priority sectors and non-essential budget items that can be cut during crises.[23, 24] Re-allocations are a crucial tool especially for many LMICs that face high debt and fiscal constraints, making this guidance particularly valuable during a pandemic response.

- Implementing a comprehensive emergency financing response plan to ensure adequate planning and budget allocation for health emergencies.

- Provide clear guidance on using emergency protocols or contingency reserves to reallocate or release funding as well as on complementary use of a combination of financing mechanisms. Ensure there is a replenishment strategy so that funds are available for the next emergency. Conduct a review and adjust PFM mechanisms to support future emergency responses. Options could involve enhancing budget flexibility during crises, reducing rigidities on disbursements and release of funds, simplifying the adoption of supplementary budgets, and adopting a risk-based approach to controls (for example, prioritizing the pre-audit on high-risk payments, while moving to post-audit processes for less risky payments).[25]

There are experiences and tools to build on. For example, Uganda serves as an example of a country with established emergency financing mechanisms, including a combination of contingency funds, funded emergency budget lines within the MoH budget, alongside a range of external financing mechanisms. These were crucial financing instruments enacted during the Ebola Virus in 2019 and COVID-19 in 2020.[26]

23. Allan, S. & Bayley, E. 2023. "Opportunity Cost of Covid-19 Budget Reallocations. Cross-Country Synthesis". Centre for Disaster Protection Report, London.

24. IMF. 2020. Special Series on COVID-19. "Budgeting in a Crisis: Guidance on Preparing the Budget 2021." International Monetary Fund, Washington, DC.

25. IMF. 2020. Special Series on COVID-19. "Budgeting in a Crisis: Guidance on Preparing the Budget 2021." International Monetary Fund, Washington, DC.

26. Resolve to Save Lives. 2024. "Rapid outbreak financing to prevent epidemics" Resolve to Save Lives, New York.

Ensuring equitable access to Medical Countermeasures

COVID-19 was a stark reminder of the importance of timely and equitable access to medical countermeasures (MCMs), including diagnostics, therapeutics, and vaccines. Ensuring equitable access to MCMs depends on a well-coordinated ecosystem for research and development (R&D), manufacturing, regulation, financing, procurement, and distribution. The COVID-19 response leveraged existing platforms and instruments for coordination, while also triggering new ones, but these experienced challenges due to financing, procurement, demand, and risk management.

The development and authorization of novel vaccines against SARS-CoV-2 in 350 days (compared with previous timelines of 5+ years) was unprecedented, due to collaborative efforts, significant investments in R&D and manufacturing capacity, leveraging of lessons learned from vaccine studies of SARS-CoV, MERS-CoV and other viruses, and of novel vaccine development platforms, in particular mRNA technology. However, it is important to note that the primary response financing was directed towards trials and manufacturing rather than core development processes, as mRNA technology had already been substantially developed prior to the pandemic.[27] A first batch of vaccines – Covishield (Oxford–AstraZeneca), Comirnaty (Pfizer and BioNTech), and the Moderna Covid-19 Vaccine – received emergency authorization in December 2020 and deployment began soon thereafter. The timely introduction of vaccines is estimated to have prevented nearly 20 million deaths and allowed countries to reopen economies and schools, and ease other restrictions, thus reducing social and economic costs of the pandemic.[28]

Several global and regional efforts sought to improve equitable and timely access to COVID-19 vaccines. Much progress was made through pooled procurement arrangements like COVAX, the vaccine pillar of the ACT-Accelerator[29] and AVATT, the Africa Vaccine Acquisition Task Team. However, these platforms had to be established ex post, and they suffered from lack of timely and sufficient financing for procurement, production, and delivery. COVAX, coordinated and administered by Gavi and involving CEPI, WHO and UNICEF, aimed to accelerate the development and manufacturing of COVID-19 vaccines and guarantee fair and equitable access for every country in the world. COVAX mobilized more than US$ 12 billion in donor funding, which was used to negotiate Advance Purchase Agreements with vaccine manufacturers even before any vaccines received regulatory approval. COVAX ended up providing nearly 2 billion vaccine doses to LICs. However, it took time for COVAX to mobilize financing at scale: in December 2020, when high-income countries had already placed many purchase orders, COVAX had raised only US $2 billion. Meanwhile, high-income countries, with financing in place earlier on, had already made early advance market commitments for more than their fair share of the population, putting COVAX and LICS and LMICs at the back of the queue.

27. Elie Dolgin. (2021). The tangled history of mRNA vaccines. Nature, 597(7876), 318–324. https://doi.org/10.1038/d41586-021-02483-w

28. Watson OJ et al. Global impact of the first year of COVID-19 vaccination: A mathematical modelling study. Lancet Infect. Dis. 2022; 22: 1293–302.

29. ACT-A was established at the end of April 2020, bringing together a diverse group of stakeholders, including governments, philanthropists, the World Bank, and global health organizations such as Coalition for Epidemic Preparedness Innovations (CEPI), Gavi, and WHO.

Another important source of vaccine financing came from the World Bank's COVID-19 response. In October 2020, the World Bank made US $12 billion available to help countries purchase and deploy vaccines through additional financing to the initial COVID-19 response projects, including through COVAX and the Africa Vaccine Acquisition Trust. Out of a total of US $10.2 billion committed by the World Bank, nearly 70 percent of funding was for acquisition of vaccines. By May 2024, approximately 18 per cent of commitments had been cancelled due to changing country needs and circumstances.

Despite the rapid development of vaccines and global efforts to promote equity, the benefits of the vaccine roll-out were highly uneven. By mid-December 2021, LICs had administered less than 9 doses per 100 people, compared to 77, 152, and 160 for LMICs, MICs and HICs respectively. In addition to the lives that could have been saved, the world could have avoided an estimated US $1.75 trillion of economic losses had global vaccination been accelerated by a year.[30] Contributing factors included lack of financing for LICs and LMICs, global supply chain disruptions, manufacturing supply constraints, lack of coordination around donations and delivery, insufficient logistical and deployment capacity, vaccine hesitancy and demand issues, and vaccine nationalism. Key challenges included both delays in the mobilization of financing, in particular donations to COVAX and commitment of financing to countries by the World Bank and other MDBs to acquire vaccines.[31] Moreover, except for limited at-risk financing for R&D and manufacturing capacity by CEPI/COVAX, there was no agreed mechanism for COVAX or other entities to enter into at-risk contracts with manufacturers. Finally, in most instances, the coordinated capacities for pooled procurement (e.g., COVAX and AVAT) had to be established ex post. This has highlighted the importance of timely and scaled financing that can be used for at-risk advance market commitments, as well as related financing and coordination agendas aimed at accelerating R&D, regionally distributed manufacturing, and rollout of new vaccines.

There have also been significant developments aimed at ensuring timely and equitable access to MCMs. For example, there is strong momentum by the G7 DFI Collaborative to create Financing Solutions for MCMs in Health Emergencies, which aims to enable rapid surge financing for MCMs for LICS and LMICs on 'Day Zero' of a health emergency. IFC leads the initiative to create a joint DFI Facility for MCM manufacturers, which would enhance coordination and provide working capital to increase and diversify production of MCMs during peacetime while allowing production to be scaled during emergencies. Other initiatives (e.g., Gavi's First Response Fund and the Africa Vaccine Manufacturing Accelerator (AVMA)) are underway. Collectively, these efforts aim to strengthen coordination platforms for research, development, manufacturing, procurement, and financing for MCMs. These developments represent important progress towards the goals of the "100 Day Mission",[32] endorsed by the G7 and G20, and will be important for addressing the bottlenecks identified during the COVID-19 pandemic.

30. Ruchir Agarwal, Tristan Reed, Financing vaccine equity: funding for day-zero of the next pandemic, Oxford Review of Economic Policy, Volume 38, Issue 4, Winter 2022, Pages 833–850, https://doi.org/10.1093/oxrep/grac032

31. In the case of the IADB the vaccine financing strategy was developed in parallel to the creation of COVAX (Gavi board approved the Mechanism July 2020). Upper management of IADB approved the vaccine financing strategy August 2020 which allowed for financing COVAX downpayments (due in Sept/Oct 2020) before the vaccines were certified.

32. The '100 days mission', launched by CEPI in 2021, aims to cut vaccine development time for new pathogens to 100 days from the moment a pathogen is sequenced and/or needed to initial availability for use.

With respect to mechanisms for at-risk financing and advance market commitments, options for how mobilization of financing, procurement, and risk sharing can be handled have been outlined.[33] However, several important questions remain.

- **Where would pre-committed financing for MCMs come from?** Equitable access to diagnostics, therapeutics, and vaccines in future outbreaks will require significant amounts of financing, with speed requiring pre-commitment of resources. Currently, there is no mechanism for mobilizing and coordinating funds of this nature. Access and take-up for LICs and LMICs will require a credible commitment that a significant share of financing is on grant or concessional terms. In the context of the COVID-19 pandemic, grant financing was complemented by financing from MDBs. This may be required in future outbreaks as well, and speed will depend on countries being able to pre-commit financing for MCMs, either by soft earmarking of contingent crisis response financing or a separate window. Commitments could include an agreement to participate in a pooled procurement arrangement.

- **Who will coordinate procurement and distribution?** Coordinated negotiations with manufacturers and pooled procurement of MCMs was an important feature of the COVID-19 response, with COVAX, AVAT and PAHO, and Global Fund's Wambo being notable examples. There is likely to be a plurality of arrangements in a future outbreak as well, which will have important implications for financing flows and coordination platforms. Ex ante discussion and pre-agreement on key aspects of any on these institutional arrangements and establishment of requisite capacities during peacetime will be critical.

- **Who will carry the risk?** Early commitment of financing MCMs comes with risks of product failure, non-delivery (counterpart risk), and potential lack of demand due to evolving epidemiological conditions. The use of bridge financing from potential future facilities or at-risk financing for MCM procurement via existing and to-be-enhanced facilities like the UNICEF Vaccine Independence Initiative (VII), and provision of liquidity support for the COVAX AMC by the EIB and DFC,[34] would depend on ex ante donor or financing partner commitments and clarity on who carries the risks of advance commitments. The same holds for the willingness of countries to use pre-committed MDB financing for MCM acquisition.

33. See, e.g., The University of Chicago Market Shaping Accelerator. June 2023. "Proposal for At-Risk Financing During Pandemics."; Agarwal, Ruchir, and Tristan Reed. "Financing vaccine equity: funding for day-zero of the next pandemic." Oxford Review of Economic Policy 38.4 (2022): 833-850.

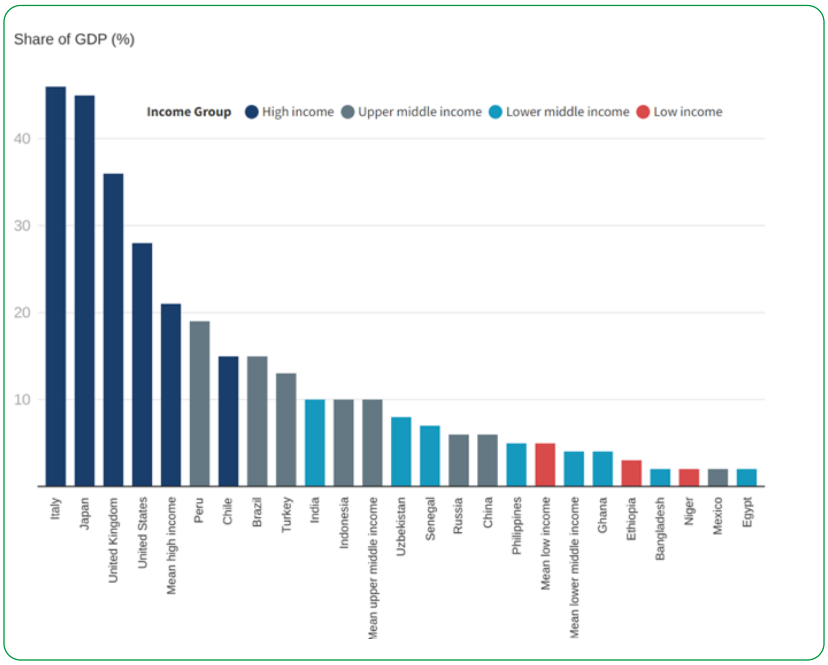
34. Advancing DFI Financing for a More Equitable Response to Health Emergencies: options and next steps (2024).DFC and USAID. https://assets.bii.co.uk/wp-content/uploads/2023/09/21113020/DFI-Surge-Financing-for-MCM_Options-Report.pdf

Financing the Broader Economic and Social Response

The COVID-19 pandemic had severe economic impacts on the global economy. Behavioral responses to the pandemic, combined with early containment measures and non-pharmaceutical interventions, such as stay-at-home orders, school closures, disruptions of travel and trade, and plummeting commodity prices, represented profound shocks to households and economies. The closure or reduced activity of firms and loss of income and livelihoods of households resulted in risks of food insecurity and poverty, as well as more systemic risks due to loan defaults. There were also significant impacts on government revenues, especially in low- and middle-income countries. For instance, in Sub-Saharan Africa, tax revenues from goods and services, income and profit, and international trade and transactions all declined by about 15 percent year on year in the second quarter of 2020. Similarly, non-tax revenues declined by nearly 20 percent year on year.[35]

Governments around the world moved swiftly to respond to these risks.[36] Policy tools included large direct income support measures, debt moratoria, and asset purchase programs by central banks. However, reflecting fiscal capacity and access to credit markets, fiscal response tended to be significantly larger in high-income countries than in low-income countries (see Figure 1).

Figure 1. Total fiscal support as a percentage of GDP



Source: WDR 2022 team, based on IMF (2021). Data from International Monetary Fund, "Fiscal Monitor Update," https://www.imf.org/en/Publications/FM/Issues/2021/01/20/fiscal-monitor-update-january-2021. Note: The figure reports, as a percentage of gross domestic product (GDP), the total fiscal support, calculated as the sum of "above-the-line measures" that affect government revenue and expenditures and the subtotal of liquidity support measures. Data are as of September 27, 2021.

35. Revenue Mobilization in Sub-Saharan Africa during the Pandemic Aqib Aslam, Samuel Delepierre, Raveesha Gupta, and Henry Rawlings. file:///C:/Users/wb226036/Downloads/en-covid-19-special-series-revenue-mobilization-in-ssa-during-the-covid-19-pandemic.pdf

36. See, e.g. World Development Report 2022. World Bank. https://www.worldbank.org/en/publication/wdr2022

LICs and MICs also offered significantly lower levels of per capita liquidity support domestically, such as equity injections, loans and debt assumptions, and guarantees, in comparison to HICs, underscoring the necessity for payment support from the IMF or MDBs (**Table 3**).

Table 3. National level fiscal measures in response to the COVID-19 pandemic since January 2020

	Above the line measures[37]				**Liquidity support**			
	Spending on health		Spending on non-health		**Below the line measures**[38]**:** equity injections, asset purchases, loans, debt assumptions, including through extra-budgetary funds)		**Contingent liabilities:** guarantees[39], quasi-fiscal operations[40]	
	Total **(USD billion)**	Average per capita spending **(USD)**	Total **(USD billion)**	Average per capita spending **(USD)**	Total **(USD billion)**	Average per capita spending **(USD)**	Total **(USD billion)**	Average per capita spending **(USD)**
High income (n=56)	1289.4	538.4	7996.6	3094.8	318.7	375.1	5109	1875.1
Upper middle income (n=49)	105.6	59.6	1073.3	270.7	44.3	33.1	457.7	150.4
Lower middle income (n=44)	53.6	25.5	177.6	72.5	12.7	2.9	174.8	26.6
Low income (n=20)	2.34	6.12	7.37	13.45	0.94	1.28	0.17	0.3
Global[41] **(n=169)**	1451.0	203.0	9255.0	1124.4	376.0	134.8	5741.0	671.9

Source: IMF country fiscal measure database (as of October 2021), IMF Fiscal Monitor (April 2020), OECD policy responses to COVID-19

In an effort to address these challenges, both IMF and MDBs took unprecedented action to provide support to countries during the COVID-19 pandemic (see Table 4 for a summary). In the case of the IMF, it emerged as a crucial source of balance of payments support for LICs and MICs. It quickly mobilized funds to respond to the crisis, supporting 80 countries within the first three months, two-thirds of which received support on concessional terms (see Figure 2). The primary instruments used were the Rapid Credit Facility (RCF) and the Rapid Financing Instrument (RFI), which facilitated immediate financial assistance and quick disbursement without the stringent conditions typical of IMF programs. The IMF also doubled access to its emergency facilities, extended debt service relief to 31 vulnerable

37. Involve revenue raising and government expenditure, which affects the overall fiscal balance and government debt including forgone revenue.

38. This generally involves the creation of assets or liabilities without affecting fiscal revenues and spending today.

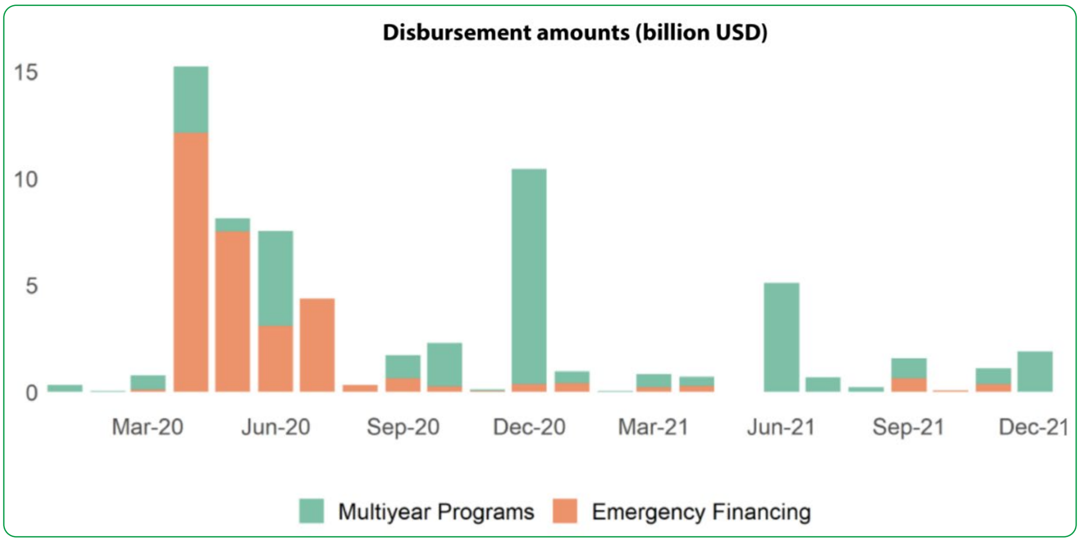
39. Guarantees on loans, deposits, etc.

40. Noncommercial activity of public corporations on behalf of government.

41. For operational and analytical purposes, economies are divided among income groups according to 2022 gross national income (GNI) per capita, calculated using the World Bank Atlas method. The groups are: low income, $1,135 or less; lower middle income, $1,136 to $4,465; upper middle income, $4,466 to $13,845; and high income, $13,846 or more. Population data used to estimate per capita spending was sourced from United Nations Population Division, World Population Prospects: 2022 Revision. Countries without any fiscal measure information during the pandemic were excluded.

countries, and proposed a new allocation of $650 billion in Special Drawing Rights (SDRs) to boost global liquidity.

Figure 2. IMF Lending by Facility – amount disbursed, 2020 – 2022



Source: Chun, Sumin, Karmen Naidoo, and Nelson Sobrinho. "The Impact of the IMF's COVID-19 Support to Developing and Emerging Economies". IMF Working Papers 2022.261.

Assessment of these efforts highlighted significant achievements in real-time policy advice and capacity development across over 160 countries.[42] However, many recipient countries faced challenges related to implementation capacity, governance, transparency issues, and inadequate support for those with unsustainable debt levels, exposing a gap in the global financial safety net. In response to these challenges, the IMF implemented a wide range of macro-fiscal instruments aimed at supporting fiscal and macroeconomic stability. Notably, the IMF rapidly mobilized substantial financial resources through Emergency Financial Assistance, providing almost $50 billion in emergency disbursements mainly under the RCF and the RFI to nearly 85 countries. Additionally, the IMF provided nearly $1 billion in debt service relief under the Catastrophe Containment and Relief Trust (CCRT) to 31 of its poorest member countries, which was key in helping maintain economic stability during the crisis. Macro-fiscal policy advice was directed to the unique needs of different economies impacted by COVID-19, and the IMF's role as the global financial safety net was effective at stabilizing the global economy.

Similarly, the World Bank Group was also able to act at scale, committing $160 billion in financing for the in fiscal years 2020 and 2021. The total financing included $76 billion of World Bank commitments, of which about half supported the health and social response and remaining resources supporting the broader economic response. Budget support was primarily conducted through its Development Policy Financing (DPF), aiming to enable significant health and economic reforms and stabilize economies. According to an IEG early-stage evaluation of the Bank's response in the first 15 months across 106 countries, the World Bank mobilized US$30 billion to support health and social responses, identifying

42. Chun, Sumin, Karmen Naidoo, and Nelson Sobrinho. "The Impact of the IMF's COVID-19 Support to Developing and Emerging Economies". IMF Working Papers 2022.261. See also, https://ieo.imf.org/en/our-work/Evaluations/Completed/2023-0313-imfs-emergency-response-to-the-covid-19-pandemic

countries with high or medium vulnerability to human capital and development losses.[43] While there were some timeliness challenges, the World Bank's proactive engagement with the IMF resulted in an improved coordination response. This collaboration included joint efforts such as the G20 Debt Suspension Service Initiative (DSSI) to improve fiscal space for indebted client countries for crisis response, suspending US$12.9 billion in debt-service payments across 48 countries. Evaluations suggested a need for a clearer strategy on crisis response across development partners and a more cohesive playbook for managing such crises, drawing on lessons from past crises and current challenges.

Most MDBs, including the ADB, the AIIB, the AfDB, the EBRD, IADB, , and the New Development Bank (NDB) also provided significant budget support in response to COVID-19.

1. The ADB's COVID-19 Pandemic Response Option (CPRO) quickly addressed fiscal gaps and encouraged systemic reforms by offering specialized budget support for government mitigation measures.

2. The AIIB's COVID-19 Crisis Recovery Facility (CRF) committed $7 billion by December 2020, targeting US$13 billion, to support social and economic responses including job protection and sector reforms, economic assistance for low-income households, fiscal policies, job protection, and key industry reforms, including infrastructure and private sector development with impacts dependent on diverse project implementation outcomes.

3. The AfDB's Crisis Response Facility (CRF) provided fast-disbursing resources through sovereign and non-sovereign operations to support liquidity and aid the private sector, though challenges in mobilizing resources and monitoring results were noted. The AfDB made available a $3 billion social bond to ensure immediate resource availability.

4. The EBRD also offered a rapid restructuring option through a Coronavirus Solidarity Package, aimed at addressing the short-term liquidity and working capital needs. It assisted 28 emerging economies suffering from the economic shock of the pandemic, totaling EUR21 billion in support.

5. The IADB developed fiscal relief packages that addressed both the health crisis and economic relief, averaging 8.5 percent of GDP. In addition, the IADB worked in close collaboration with the IMF and approved $2.7 billion through its Special Development Lending instrument to support 8 governments to preserve macroeconomic stability and fiscal sustainability. IADB also approved $2.1 billion to strengthen the efficiency and effectiveness of public policy and fiscal management in response to the health and economic crisis caused by COVID 19 in 8 countries.

6. The NDB was one of the first MDBs to respond by mounting a significant emergency response in support of its five founding member countries. The Bank's Fast-Track Policy and COVID-19 Emergency Program Loans (CEPLs), in 2020 and 2021, provided resources to Brazil, China, India, Russia, and South Africa, each amounting to USD 1 billion, to finance direct expenses related to combating the COVID-19 outbreak or to support governmental measures contributing to

43. https://ieg.worldbankgroup.org/evaluations/world-banks-early-support-addressing-covid-19

economic recovery in the member countries. The Bank aimed to provide up to a total of USD 10 billion in crisis-related assistance, including support for the economic recovery of member countries.

Table 4. Overview of COVID-19 Macro-Fiscal Support

Organization / institution	Key instruments for response financing / support	Key areas of support	Key issues / challenges
World Bank (IDA-IBRD)	Development Policy Financing (DPF)	-Budget support to enable implementation of significant health and economic reforms -Economic stabilization measures for critical sectors	-Ensuring timely and adequate disbursement in a global emergency. -Aligning interventions with diverse and rapidly changing country needs.
	Fast-track Covid-19 Facility	Rapid funding mechanism for urgent fiscal needs.	
IMF	Rapid Credit Facility (RCF) Rapid Financing Instrument (RFI) Catastrophe Containment and Relief Trust (CCRT) Special Drawing Rights (SDR) Short term liquidity line (SLL)	-Doubled access to its emergency facilities (RCF and RFI), providing quick assistance without ex-post program-based conditionality or reviews; -Extended debt service relief to 31 vulnerable member countries through the CCRT; -Called for a new allocation of US $650 billion in SDRs to supplement reserves and support recovery efforts; -Approved the establishment of SLL to provide a moderate balance of payments support. -Real-time policy advice and capacity development to over 160 countries, focusing on issues such as cash management, financial supervision, and economic governance.	- Implementation capacity of recipient countries impacted effectiveness. - Challenges in governance and transparency.
ADB	Covid-19 Pandemic Response Option (CPRO) Sustainable Economic Recovery Program	A specialized budget support instrument to provide quick fiscal support for governments to implement mitigation measures	- Effectiveness in targeting specific needs of governments and populations. - Contributed to filling fiscal gaps but highlighted a need for more systemic reforms and domestic resource mobilization.
AIIB	Covid-19 Crisis Recovery Facility (CRF)	Supplemental funding to governments to support their social and economic response and recovery measures, including social protection and economic assistance for low-income households, fiscal policies, protection of jobs and key industries (exports, services, micro, small and medium-sized enterprises) and sector reforms (including in infrastructure and private sector development). By Dec 2020, USD 7 billion committed; target of USD 13 billion[44]	Impacts were contingent on project implementation and outcomes in diverse country contexts
AfDB	CRF (Crisis response budget support)	Provided fast-disbursing resources through sovereign and non-sovereign operations, budget support, liquidity support, and support to the private sector.	- Challenges in mobilizing resources and targeting beneficiaries. - Monitoring of results was problematic. - Variability in effectiveness across different priority areas, especially in economic resilience.
	Usable social bond	US$ 3 billion made available to make immediately usable resources available	
EBRD	Coronavirus Solidarity Package	- Help countries to meet the short-term liquidity and working capital needs. - Provide finance and policy support to help businesses and government combat the economic and societal impact of the pandemic.	- Lack of clarity in the application of the eligibility criteria - Lack of feedback loop to assess needs and demands
IADB	CCF (Contingent Credit Facility)	Help countries develop effective strategies for natural disaster financial risk management. This was temporarily extended to COVID-19. The instrument was also expanded permanently to include coverage for Public Health Emergencies.	Challenges included setting clear, objective trigger conditions, ensuring sufficient funding was available, and facilitating coordination and quick access to funds during crises.
	Fiscal relief packages	Fiscal resources to address the health crisis and provide economic relief. Average package size around 8.5% of GDP	Challenges included ensuring the adequacy and timeliness of the relief, effectively targeting the most affected sectors, and managing the long-term impact on public debt sustainability.
	Global Credit Lines Instrument	Designed to encourage lending to specific sectors, typically SMEs, by reducing the risk to lenders.	Key challenges involved handling the risk of higher defaults, ensuring effective implementation and broad reach to target businesses, and avoiding moral hazard where businesses might take undue risks due to the safety net provided.
NDB	Fast-Track Policy and COVID-19 Emergency Program Loans (CEPLs)B	Financing direct expenses related to combating the COVID-19 outbreak or to support governmental measures contributing to economic recovery in the member countries	

44. https://www.aiib.org/en/news-events/annual-report/2020/covid-19/index.html.

III. LOOKING AHEAD: TOWARDS A RESPONSE FINANCING PLAYBOOK

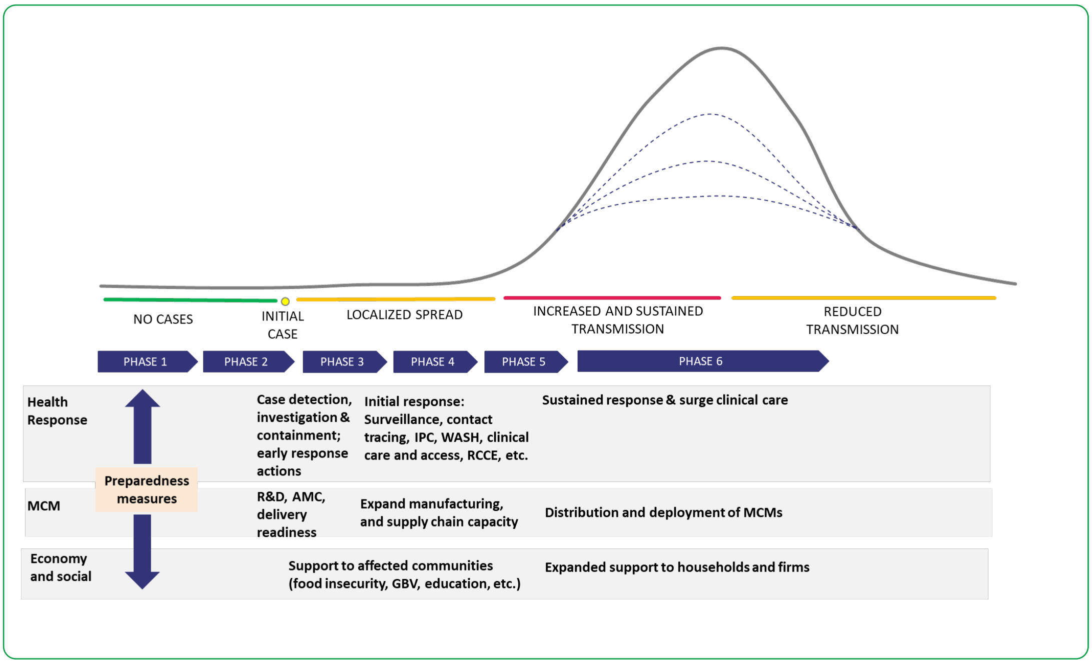
This paper has provided an update on the 2023 "Options and Gaps paper". It has expanded the mapping and assessment of response financing tools and instruments by covering: (i) the role that DFIs and guarantees played in the COVID response; (ii) new and emerging tools and instruments for response financing; (ii) options and issues in leveraging domestic financing for a pandemic response; (iv) particular challenges that arise in relation to access to MCMs; and (v) the role of balance of payment and budget support to mitigate the economic and social impacts of the COVID-19 pandemic.

It has shown that there have been significant developments to strengthen the response financing tools and instruments across a wide range of organizations and institutions, in many cases building on the experience and lessons from the COVID-19 pandemic. The paper has also highlighted efforts to strengthen governance and coordination mechanisms. Yet, it is clear that important gaps remain with regards to scale, speed, and coordination of response financing, underscoring the importance of the proposed "Response Financing Operational Playbook" (the Playbook), which will be developed by September 2024.

The Playbook will have two broad objectives. First, it will seek to facilitate access to response financing (scale, speed, and efficiency) and coordination by ensuring that decision-makers have comprehensive information about financing tools and instruments that are available to countries to respond to a future pandemic. This will include core information about financing parameters and modalities (e.g., eligible countries and expenditures, triggers to access financing, conditionalities, scale limitations, etc.), coordination platforms and processes, and other relevant information. Second, the Playbook will be an instrument for continuous strengthening of the response financing ecosystem by serving as a reference to monitor gaps and undertaking periodic functional tabletop exercises. The Playbook will cover issues related to both domestic and international response financing. It will primarily focus on financing of the health response but will also include key aspects related to financing for the broader fiscal and social response.

The Playbook will be underpinned by a recognition that the trajectory of pandemics will depend on actions taken across the health, MCM and economic/social demands both before and after an outbreak (see Figure 3).

Figure 3. Expenditure needs at different stages of a pandemic



Note: the dotted lines show different case or mortality trajectories, which will reflection actions taken across the health response, MCM and economic domains.

As a health emergency develops over time, well-coordinated decision-making by policy makers will need to be based on as much information as possible which is likely to include:

- The characteristics of the health emergency: likely pathogen characteristics, expected evolution and recommended response measures, both health and non-pharmaceutical interventions.
- The prioritization of measures and actions that are needed to address the health threat including reducing transmission and impact of the pathogen for a specific country or local area. This will include testing, treatment, and access to MCMs for specific communities.
- Access to financial resources; in particular, the expected sources, amounts and flow of finance that will be available at each stage based on domestic and international mechanisms and associated triggers, conditionality, and scale limitations.

The identification of key decision points as a pandemic develops including the information required and therefore which organizations and entities should be involved in decision-making. Additionally, it will help to identify any financing gaps by scale, timing and at-risk financing and priorities and potential actions to address response financing gaps including scaling up of existing mechanisms.

The Playbook will also be underpinned by the principles of country ownership and alignment with country needs and systems. As outlined in Table 5 below, current arrangements and realities are far from a scenario in which low-, middle-, and high-income countries have access to well-coordinated and aligned instruments for responding to complex and evolving needs in the context of a pandemic or other health related emergency.

Table 5. Country needs and key challenges response financing

Response financing domains	Ideal scenario	Current issues and challenges
Domestic financing for health emergency response	• Country organization charged with outbreak investigation and initial response have access to immediate and flexible financing. • PFM systems have provisions and procedures for timely access of sufficient financing for emergency response with adequate oversight. • PFM systems have been stress-tested.	• Pre-positioned financing, including for initial rapid response, typically limited. • PFM arrangements do not provide a balance of speed and oversight. • Emergency response financing arrangements are not routinely stress-tested.
International financing for the health and macro-fiscal response	• Countries in need of international response financing are clear on potential sources. • Volume of likely grant vs. loan financing is predictable. • Financing is flexible and can be allocated based on country needs. • There are aligned triggers that allow access to financing. • Procedures using and reporting on response financing are aligned.	• There are a broad range of actors providing response financing. • Expected volume of grant and loan financing is not clear. • Some sources are earmarked (or in-kind) or come with important restrictions. • Timeline for processing financing varies and is likely to be long in some cases. • Operational coordination at country-level is limited. • Triggers and procedures are not aligned.
Timely and equitable access to MCM	• Countries have clarity on volume and sources of grant and loan financing for MCMs. • Financing sources have aligned triggers for access to. • Countries have options for participation in AMCs and pooled procurement arrangement and have pre-identified preferred options.	• Extent of grant and loan financing that is likely to be available for MCMs is not clear. • Triggers for access vary across financiers. • There are limited established options for AMCs and pooled procurement. • There are no established arrangements for managing product or market risks if countries use domestic or loan financing for MCMs.

Source: Authors

Next steps. Based on feedback on this paper, a detailed workplan for the Operational Playbook will be developed.

ANNEXES

Annex 1. Overview of COVID-19 Response Financing (Health Response)

Note: This table summarizes information presented in the Aug 2023 Gaps and Needs paper with some updates. It is included as reference.

Organization / institution	Key instruments for response financing / support	Key areas of support	Key issues / challenges
World Bank (IDA/IBRD)	Crisis Response Window	The CRW provided support for crisis risk management, emergency response, and recovery efforts in member countries. -CRW supported the waiver of commitment fees for IBRD loans and the commitment charge for IDA non-concessional credits for first year of relevant operations -Support of additional financing to the COVID-19 SPRP	
	CERCs	Provide rapid financial support during a crisis. It is specifically designed to enable quick reallocation of funds to emergency response activities from existing World Bank-funded projects. -Immediate Response to disasters or health emergencies -Health Systems Strengthening -Support across various sectors	-Not all financing could be activated readily as some arrangements require countries to declare an emergency to make resources available, which can delay the disbursement of funds. -While CERCs allow for the reallocation of funds, the restrictions on how these funds can be spent can limit their effectiveness.
	MPA	Supports extensive and phased response activities over a longer duration and allows for adjustments in the project's scope and funding based on evolving needs during an ongoing crisis.	The multiple phases and components of the MPA structure, led to challenges in coordination and management across different stages and sectors of certain projects. About a third of MPA projects collaborated with another global practice.
	Development Policy Financing (DPF) with Cat DDO	-Provides countries with financial protection against natural disasters and public health emergencies. -Ensures funds are available immediately after a disaster or during an emergency without the need for lengthy approval processes.	Activation involved complex criteria and preconditions, which slowed down the disbursement process.
International Finance Corporation (IFC), World Bank Group	Global Health Platform (US$4 billion)	On July 29, 2020, IFC provided $4 billion through the Global Health Resilience platform. The platform provided support to: financial support to private sector providers; capacity strengthening for manufacturing supplies; infrastructure upgrades; support to pharmaceutical companies and manufacturers to support expansion of manufacturing capacity, procure raw materials and scale up production of healthcare products	
Multilateral Investment Guarantee Agency (World Bank Group)	Guarantees to mitigate risk(Credit enhancement, capital optimization and trade finance)	On April 7, 2020, MIGA launched a US$6.5 billion fast-track facility to help investors and lenders for the health response and economic recovery. MIGA underwrites guarantees to increase the confidence of lenders and private investors, while increasing access to finance (on more favorable terms) for governments. This included three pillars: 1) procurement of urgent medical supplies/services; 2) countering adverse economic impacts during the crisis (credit enhancement program for $2.5 billion; capital optimization for $2.5 billion); 3) trade finance to complement IFC, during the recovery phase ($0.51-1 billion)	- MIGA guarantees were issued to several countries, including Botswana, Eswatini, Ghana, Lesotho, Mozambique, Nigeria, Zambia, Albania, Argentina, Colombia, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, Serbia, and Panama. - Issues surrounding credit threshold for country eligibility (currently internal credit ratings of BB- or above)
ADB	Dedicated Countercyclical	- health care capacities, including the procurement of medical supplies and equipment,	-Speed of disbursement

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Organization / institution	Key instruments for response financing / support	Key areas of support	Key issues / challenges
	Support Facility (CPRO)	strengthening of hospital and healthcare facilities, and support for frontline healthcare workers. - Budget support to governments to help manage the economic shocks of the pandemic. -Expansion of social protection measures, including direct cash transfers and subsidies to vulnerable populations affected by the pandemic.	-Adequacy of funding -Coordination and Flexibility of the mechanisms
	Contingency Disaster Financing	-Emergency healthcare services -Quickly implement initial health response measures such as detection, surveillance and containment efforts	
AfDB	COVID-19 Crisis Response Facility (incl. Crisis Response Budget Support	Financing pandemic response, including health services, social protection measures, and economic stabilization efforts.	-Scale of demand -Rapid disbursement -Coordination with other agencies -Flexibility of use -Accountability and transparency
IADB	CCF (Contingent Credit Facility)	Help countries develop effective strategies for natural disaster financial risk management. This was temporarily extended to COVID-19. The instrument was also expanded permanently to include coverage for Public Health Emergencies.	
	Policy Based Lending (PBL) to support Fiscal relief packages	Fiscal resources to address the health crisis and provide economic relief. The aim of the projects included: (i) to promote the availability and timely execution of public resources to respond to the health crisis caused by COVID 19; (ii) to strengthen the countercyclical effect of fiscal policy through the temporary introduction of measures to protect the income of vulnerable households and increase liquidity for businesses during the health and economic crisis; (iii) to support the effective and continuous provision of essential goods and services through public policy and management measures; and (iv) to promote economic and fiscal recovery during the post pandemic period.	
	Special Development Lending (SDL)	Supported governments to implement policies that seek to preserve macroeconomic stability and fiscal sustainability.	
	Investment based financing	**Instrument: Loans for Specific projects** (ESP) for health and vulnerable populations. Health loans aimed to: (i) strengthen response leadership at the country level; (ii) improve case detection and monitoring; (iii) support initiatives to break the chain of transmission of the illness (including vaccines); and (iv) improve service delivery capacity. Loans to support vulnerable population contributed to ensure minimum levels of quality of life for vulnerable persons by providing support to minimum income and employment levels for those affected by covid in the immediate period and during recovery as well as preserving human capital of those affected by covid. **Instrument: Global credit lines** to support the sustainability of micro, small, and medium-sized enterprises (MSMEs) as employment providers amid the COVID-19 crisis by supporting them to overcome temporary liquidity problems and meet their financial obligations (working capital, refinancing loans, guarantees for working capital loans to cover lender risk). The loans aimed to: (i) to support the short-term financial sustainability of MSMEs; and (ii) to promote the economic recovery of MSMEs through access to production-oriented finance.	

Organization / institution	Key instruments for response financing / support	Key areas of support	Key issues / challenges
	Guarantees	Used to support Advance Market commitments through COVAX in countries with lower credit rating, to provide access for vaccines (allowed for downpayments to COVAX before vaccines were authorized.	
EIB	Project-based financing (loans, equity, frontloaded)	-Financing for healthcare infrastructure, including hospitals and other medical facilities. -Investment in the research, development, and production of COVID-19 vaccines and therapeutics.	-Speed and agility of response -Balancing speed with due diligence -Coordination with other financial institutions and governments -Sustainability and long-term viability -Monitoring and Impact Evaluation
AIIB	COVID-19 Crisis Recovery Facility	-Improving healthcare services and facilities, existing healthcare infrastructure, and purchasing essential medical equipment and supplies. - Help maintain operations, preserve employment, and stabilize income for SMEs -Investments in sectors critical for pandemic response and recovery, including digital infrastructure to support remote working and education, as well as transport and logistics enhancements to ensure continued movement of goods and services.	-Rapid deployment of funds -Aligning efforts and preventing overlap with initiatives from other financial institutions -Accurate resource allocation to the most impacted sectors -Ensuring the immediate financial aid provided does not compromise the long-term sustainability of funded projects or the bank.
The Global Fund	Balance sheet flexibility (US $500 million made available)	-Possibility to quickly redirect existing financial resources to critical areas of need such as purchasing essential medical supplies to strengthening health systems to cope with the pandemic.	Potential underfunding of other critical health initiatives (HIV, TB, Malaria). The sustainability of long-term health programs could have been affected by the diversion of funds to immediate pandemic response needs.
	C19RM (COVID-19 Response Mechanism, US $ 5 billion awarded)	Funding for procurement and Technical Assistance in the following areas - Testing and treatment (including Oxygen) - Personal protective equipment - Health system strengthening (including laboratory systems, supply chain and waste management, early warning surveillance and response, community systems, oxygen and respiratory care systems)	There were some issues with coordination across different financing modalities and the predictability of funds, which affected the implementation of funding in country.
	Pooled procurement mechanism	-Diagnostics, pharmaceuticals, lab equipment -Efficient distribution and delivery of supplies	There were challenges in managing complex supply chains and ensuring rapid deployment of supplies, given disrupted usual logistical routes and manufacturing processes.
Gavi	COVAX	Approx. US$10 billion Rapid access to vaccines Supporting vaccines R&D Strengthening health systems Procurement and delivery of medical supplies	lack of timely cash flow Misalignment of donors commitment with global and national response plans There were significant communication and coordination challenges that prevented the financing from being allocated for its intended uses. Implementation delays Limited capacity for implementation
CEPI	At-risk Financing	Approx. US$2.1 billion investment in vaccine R&D to ensure that potential vaccines are developed quickly and are ready to undergo	Challenges include readiness regarding assays, inputs into

Organization / institution	Key instruments for response financing / support	Key areas of support	Key issues / challenges
		regulatory review and mass production as soon as possible after a pandemic emerges.	manufacturing and ecosystem readiness in general.
UNICEF	Balance Sheet Flexibility	Supports rapid reallocation of resources to address immediate and emerging needs during a crisis in health and nutrition sectors for children	Funding constraints during prolonged crises.
	Vaccine Independence Initiative (VII)	Supports access to vaccines to maintain routine immunization programs during health emergencies. It was used to bridge finance domestic budgets, grants, and uniquely also to do at-risk bulk purchasing of all MCMs (diagnostics, treatments, vaccines, and oxygen)	Dependency of external donors / financing partners
	Humanitarian Action for Children (HAC) appeals	Mobilizing resources to support children affected by emergencies (health, nutrition, education)	Volatility in funding which could affect the planning and implementation of long-term projects
	ACT-A Supplies Financing Facility (SFF)	Coordinating and financing the procurement and distribution of COVID-19 essential supplies, including diagnostics, therapeutics, and vaccines with dedicated windows and allowing country-choice and ownership of MCM selection	Coordination challenges among stakeholders, affecting timely procurement and distribution of supplies.
WHO	CFE	Allows WHO to allocate funds where they are most needed at the onset of a crisis, addressing critical gaps in response capabilities and provides immediate financial resources to respond quickly to disease outbreaks and health emergencies.	Insufficient funding levels, which can hamper its capacity to respond adequately to large-scale emergencies or simultaneous events
	Revolving Fund for Procurement	Ensure the pooled procurement of vaccines, medicines, and other health products.	Efficient supply chain management was complicated by global emergencies that disrupted usual logistical routes and manufacturing processes. Also, financial stability of the fund proved challenging, particularly in maintaining sustained funding and managing cash flows effectively

ANNEX 2. New or emerging response financing tools & instruments

Table 1. MDBs

Organization / institution	New instruments/ tools	Purpose	How will it work?	Status
World Bank Group	Crisis Preparedness and Response Toolkit	An expanded crisis toolkit to help developing countries better prepare for and respond to crisis through: - More flexible funding reallocation - Scaled up access to contingent resources and immediate crisis response financing (i.e., budget support) - Expanded catastrophe risk transfer solutions - Climate Resilient Debt Clauses for small states during crises Accompanied by crisis preparedness reforms and capacity building	Builds on existing WBG crisis response tools, filling gaps based on lessons from previous crises and helping to ensure comprehensive protection for countries in times of need. Mixture of financing instruments including repurposing financing, catastrophe bonds, deferring payments, insurance products. Will require technical assistance for preparedness to ensure plans are fit-for-purpose for health emergencies	Approved by WB's board in February 2024. Roll-out expected to start by end of FY24. Scale will depend on client demand
ADB				
AfDB	No new instruments.	Primary instrument for providing contingent financing remains the Crisis Response Facility (CRF) through which it can also finance Crisis Response Budget Support (CRBS) operations. The Transitional Support Facility (TSF) also offers health emergency and crisis response funding targeted for countries affected by fragility and conflict.		
IADB	Contingent Credit Facility (CCF)	Financing natural disasters	Contingent loans originally designed for natural disasters; it was extended temporarily to cover covid activities and extended permanently to cover public health emergencies.	Active, will continue to evolve
	Guarantees for COVAX	Issuing guarantees to allow countries with lower credit rating to enter COVAX mechanism	Issued with pre-COVID rules.	Active, used in Ecuador and Belize
AIIB	PBF Co-financing	Emergency countercyclical financing	Exceptional and timebound policy-based co-financing with peer MDBs.	
	COVID-19 Crisis Recovery Facility	Expanded financing of existing COVID-19 Recovery facility until end 2023.	The CRF finances both public and private sector entities to address immediate health needs, strengthen healthcare systems, and support economic recovery and resilience.	

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	Expanded use of regular instruments	Crisis support to clients facing climate and health related hardships from its scaled up regular operations in green and social infrastructure	AIIB has increased its capacity to support Clients in crisis response using a wider range of regular instruments. Mainstreamed liquidity financing and Results-Based-Lending (RBL) for emergency response AIIB will use principles from financing in the private sector and modelled around innovative financing instruments of peer MDBs (including fast-disbursing preventive financing instruments).	
IMF	No specific new instruments	The Rapid Credit Facility (for PRGT-eligible countries) and the Rapid Financing Instrument (for all other member countries) as well as the CCRT remain IMF's instruments for responding to health emergencies/crisis response	N/A	N/A

Table 2. UN agencies

Organization / institution	New instruments/ tools	Purpose	How will it work?	Status
WHO	No new instruments	N/A	N/A	N/A
UNICEF	Expanding Vaccine Independence Initiative (VII)	The tool helps countries bridge temporary short-term funding gaps, which might otherwise lead to supply shortages and stock-outs of health related supplies	Through flexible credit terms, governments can make payments after delivery, in contrast to typical standard of advance payments. Ongoing discussions with donors, countries, and partners to expand this reliable mechanism to include additional MCM and expand the scope. Highly flexible/proven and nimble mechanism	Active with expansion planned.
	Supplies Financing Facility (SFF)	Remaining funds tied to the mechanism are actively supporting supply-oriented activities associated with the expanded scope of ACT-A priorities. The focus on COVID-19 response is winding down with overall structure anticipated to remain in place to possibly support future emergency supply needs through UNICEF's procurement services processes.	Pooled fund to support LICs and MICs to access, purchase, and receive the delivery of key COVID-19 supplies	Active with revisions to mechanism
	XVax	Core partner of the XVax initiative that includes alignment on financing and procurement of vaccines. This work is closely coordinate across CEPI, GAVI, UNICEF and WHO and continues to evolve since the last update based on a dedicated workplan and priorities.		

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Table 3. Global Health Initiatives

Organization / institution	New instruments/ tools	Purpose	How will it work?	Status
CEPI	Advanced Market commitments (AMCs)	A tool to incentivize investment in R&D and manufacturing of MCMs.	CEPI may broker/ enable APAs and AMCs with the partners who do have the funding to buy at the AMC level.	
	Advanced Purchase Agreements (APAs)	A tool meant to facilitate investments in R&D and manufacturing during the inter-pandemic period to ensure a rapid and effective response.		
Gavi	First Response Fund	The instrument aims to provide essential capital, which can be utilized at risk, to guarantee that lower-income countries have early access to vaccines during the next pandemic. Its goal is for Gavi to secure promising vaccine candidates within the first 50 days of a pandemic outbreak and potentially support the initial setup of vaccine delivery systems.	The fund will secure early vaccine doses through Advance Purchase Commitments, targeting priority populations and healthcare workers. This includes necessary vaccine ancillaries like syringes. The fund will also support essential cold chain equipment, support of the implementation of pandemic response plans at the country level; and targeted support to maintain routine immunization efforts and protect healthcare workers.	Subject to Board approval
	Africa Vaccine Manufacturing Accelerator (AMVA)	The AMVA is designed to make up to US$ 1 billion available over the next ten years to support the sustainable growth of Africa's manufacturing base, which has the potential to not only contribute to healthy global vaccine markets, but also benefit outbreak and pandemic	AVMA works by offering two types of incentive payments that offset some of the initial high costs of production. Some of these payments will be higher for a subset of vaccines (the priority vaccine market	

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		prevention, preparedness, response and resilience.	group) for which there is an unmet need or a need to boost market health – or for which a manufacturer has established a prioritised vaccine technology platform in Africa that could be brought online during a pandemic response.	
The Global Fund	Revolving Facility	To secure improved access terms for innovative products.	This instrument allows the Global Fund to provide volume guarantees to suppliers to lock in favorable supply terms and secure manufacturing capacity to serve forecasted demand.	Active
	NextGen Market Shaping	To accelerate new product introduction, support capacity building for regional manufacturing and strengthen sustainable supply chains to drive more equitable access to quality assured products.	Global Fund uses international tenders to incentivize manufacturers to meet quality requirements and enters multiyear framework agreements with multiple suppliers to ensure supply security, reserving capacity for new entrants mid-cycle. Global Fund also uses its Access Fund to provide co-payment to country programs to support the introduction of new products, and provides technical assistance for implementation. It also funds the Expert Review Panel hosted by WHO to allow for expedited approval of priority products.	Active

Annex 3. The World Bank Crisis Preparedness and Response Toolkit

Throughout 2023 and 2024, the World Bank approved various phases of the Crisis Preparedness and Response Toolkit, which is a suite of tools to help developing countries better respond to crises and strengthen preparedness for future shocks. The toolkit builds on existing WBG crisis response tools, filling gaps based on lessons from previous crises and helping to ensure comprehensive protection for countries during emergencies. Features of the toolkit include:

- Fast access to cash for emergency response, through more flexible funding reallocation.
- Scaled up access to contingent resources and immediate crisis response financing (i.e., budget support).
- Expanded catastrophe insurance, offering increased protection against large-scale disasters.
- Debt clauses that allow small states to pause debt payments in the event of a crisis so that the countries can prioritize disaster recovery over debt repayment.

With the approval of this expanded package, countries will have to undertake crisis preparedness reforms and other institutional strengthening measures to further leverage these new tools, based on demand. While the toolkit is not specific to any one sector, the crisis preparedness reforms will require support from sectors related to health emergencies and pandemics, such as health and agriculture. For example, some contingency financing mechanisms may require pre-identification of triggers and eligible expenditures. There is also a need to prioritize the roll-out in countries that face particularly high risks of outbreaks or other emergencies. The planning around the toolkit offers an opportunity to strengthen countries' financing preparedness and will have important synergies with other efforts to strengthen pandemic preparedness capacities.

The scale of financing available through the new toolkit will depend on country interest in establishing the requisite arrangements with the World Bank and the volume of undisbursed balances. A recent simulation focused on the RRO, based on current levels of undisbursed balances and assuming that (i) 80% of countries have the RRO active, and (ii) those countries use on average 8% of their undisbursed balances, concluded that countries could access a total of US$11B through the RRO.

Annex 4. Overview of Selected Global Coordination Platforms

Capacity / theme	Coordination platform	Governance	Financing	Advantages/Disadvantages
Response coordination	Partners Platform	WHO, UNDCO	WHO	- Near real-time access to response updates and planning across countries, partners, and donors - Currently limited to specific diseases and hazards
	UN Inter-Agency Standing Committee (IASC)	UNSG, OCHA	UN agencies, UN CERF	- Cross-agency coordination of humanitarian action within the UN network - Established mechanisms for response activation, expansion, and deactivation: Scale-Up Protocols for the Control of Infectious Disease Events (adapted for COVID-19), active for 6-9mos and in humanitarian settings (Global IASC Scale-Up with a specific focus on all Global Humanitarian Response Plan (GHRP) countries)
	Global Health Cluster	WHO, UN IASC	WHO	- Regularly active during inter-crisis periods, but in humanitarian / FCV contexts only - Inter-cluster collaboration and coordination challenges, limited vertical technical expertise
Surge workforce	Global Outbreak and Response Network (GOARN)	WHO	WHO, GOARN partners	- Wide range of deep technical specialties, provides support through different modalities - International deployment activation can take time
	EMT (Emergency Medical Teams) Initiative	WHO, UNOCHA	WHO, EMT partners	- Rapid scale-up to coordinate health service delivery and case management - In-country accountability and governance can be challenging
	Standby Partnership Programme (SBP)	UN, individual agencies	Individual network partners (UN agencies, standby partners)	- Requires individual bilateral agreements between each agency and standby partner - Fewer deployments for technical roles, dependent on roster strength and agency
MCMs / R&D&M, research and innovation	R&D Blueprint for Epidemics	WHO, independent Technical Advisory Group	WHO	- Enables rapid strategic R&D activation for priority pathogens with consensus research agenda - Limited convening power
	Global Research Collaboration for Infectious Disease Preparedness (GloPID-R)	Independent executive leadership team (international research funders)	EU (Horizon Europe)	- Coordinated clinical trial strategies and research funding mechanisms, can be activated for rapid research response during outbreaks - Value is limited for smaller-scale epidemics

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	Global Vaccine Data Network (GVDN)	Independent coordinating centre and scientific advisory committee	University of Auckland, US-CDC, New Zealand MoH	- Large global coverage for vaccine safety and effectiveness across diversity of populations, including pharmacovigilance after vaccine introduction - Emerging initiative, focused on COVID-19
Surveillance and epidemic / public health intelligence	GLEWS/GLEWS+ (Global Early Warning System for Major Animal Diseases and Zoonoses)	FAO / WHO / WOAH (OIE)	Individual agencies	- Specific to high-threat zoonotic pathogens, cross-sectoral One Health approach
	GOARN	WHO	WHO	- Informal intelligence, coordinated with WHO global surveillance teams and GOARN primary rapid response activities
	IPSN (International Pathogen Surveillance Network)	WHO Pandemic Hub	GIZ	- Coordinated pathogen genomic sharing and analysis - Early-stage initiative
	Epidemic Intelligence from Open Sources (EIOS)	WHO (Pandemic Hub)	WHO	- Global all-hazards monitoring through innovative data and technology approaches - Dependent on individual member and partner engagement
RCCE and infodemic management	Collective Service	IFRC, UNICEF, WHO, GOARN	IFRC, individual agencies	- Strong presence before and during emergencies to inform and support community-led response - Limited geographical scope and presence
	Information Network for Epidemics (EPI-WIN)	WHO	WHO	- Direct collaboration with global community networks - Primarily focused on information sharing and messaging

Annex 5. The Pandemic Emergency Financing Facility

The 2014-15 West Africa Ebola outbreak exposed the limitations in financing and coordinating responses to severe disease outbreaks. In response, the Pandemic Emergency Fund Facility (PEF) was established in July 2017 to provide surge financing for disease outbreaks to both sovereign and non-sovereign frontline entities. The fund was designed to enhance the capacity of low-income countries to manage health crises and the international community's ability to deliver timely and coordinated surge responses. The PEF also sought to catalyze a global market for pandemic insurance instruments, providing an additional source of financing for outbreaks.

The PEF was established as a Financial Intermediary Fund hosted by the World Bank. Depending on the size and level of severity, countries and eligible beneficiaries could access two financing windows. The "Insurance Window" targeted outbreaks that met specific criteria for activation and targeted multi- country, large-scale, high-severity infectious disease outbreaks. The "Cash Window" covered infectious diseases beyond the scope of the insurance window including different, new, and unknown pathogens. This window was also designed to pay out at earlier stages of a growing disease outbreak. While the Cash Window operated similar to a traditional trust fund financed by donor contributions, the Insurance Window leveraged funding through (re)insurance markets via a Pandemic Insurance, and capital markets via a Pandemic Bond.

In the event of a disease outbreak, all IDA-eligible countries automatically qualify to access PEF funding. The PEF Cash Window was set up to ensure rapid decision-making (48 hours), flexibility to provide financing through different Implementing Entities based on country needs and preferences, and operational agility through reliance on the systems and procedures of different IEs. In certain cases, retroactive payments were also eligible, subject to the policies and procedures of the relevant Responding Agency.

The PEF made four payouts in a total amount of $257.24 million before officially closing in April 2021 (see below). The rapid spread of COVID-19 and associated losses for investors impacted on the interest in the insurance market for catastrophe bonds. Nonetheless, the structure and operational model of the Cash Window brought many strengths that can inform future solutions.

- **1st payout** in May 2018: US $11.4 million from the Cash Window to Democratic Republic of Congo (DRC) to support the Strategic Response Plan (SRP) for the 9th Ebola outbreak. Disbursement made within 2 days of receiving the funding request.

- **2nd payout** in Feb. 2019: US$20 million from the Cash Window to DRC for the 10th Ebola outbreak, meeting a critical gap in the country's 3rd SRP.

- **3rd payout** in Aug. 2019: US$30 million from the Cash Window to DRC to support SRP4 for the 10th Ebola outbreak.

- **4th payout** in April 2020: US$195.84 million from the Insurance Window to 64 countries to support the response to the COVID-19 pandemic.

	Cash window	Insurance window
Basis of design	To provide funding for large-scale infectious disease outbreaks and to pay out at earlier stages of a growing disease outbreak (relative to those that would trigger the Insurance Window).	To provide funding for multi-country, large-scale, high-severity infectious disease outbreaks that have met specific, pre-determined activation criteria
Size	US $64 million Payout per event determined on a case-by-case basis	Initial coverage of US$425 million through a phased program of bond and swap issuances, with ceilings of maximum payments for each disease/pathogen
		Payments from capital markets were layered (except for flu) and pre-determined upon outbreak reaching threshold levels Payouts to affected countries were calculated based on number of cases, population, and fragility status
Coverage	Outbreaks of viral pathogens that pose a significant threat of spreading (included all diseases/ pathogens covered under Insurance Window)	Outbreaks from a defined set of 6 diseases/pathogens: Pandemic Flu, Filovirus, Coronavirus, Lassa Fever, Rift Valley Fever, Crimean Congo Hemorrhagic Fever
Trigger	Based on pathogen type, epidemiological thresholds, technical expert assessment and Steering Body approval	Based on the outbreak reaching a pre-determined level of severity, measured in terms of outbreak size (number of cases/ deaths), spread (number of countries) and growth.

Annex 6. Overview of existing triggers and their challenges[45]

Institution & Instrument	Objective	Countries & Diseases/Events covered	Trigger design	Potential issues/ challenges
World Bank: Pandemic Emergency Financing Facility (PEF)	To provide financing for financially costly, multi-country epidemics and pandemics (rather than single-country outbreaks)	**Countries:** IDA countries **Diseases:** - Pandemic influenza - Novel coronaviruses - Filoviruses - Lassa Fever - Rift Valley Fever - Crimean Congo Hemorrhagic fever	Triggers were specific to bond class and pathogen group, and included: - Cumulative cases - Eligible event period day - Total confirmed deaths - Geographic spread - Growth rate - Confirmation ratio for certain pathogens	- Received criticisms due to complex trigger design - Did not pay out during some Ebola outbreaks
IADB: Contingent loan for Natural Disaster and Public Health Emergencies	To help cushion the impact that a severe or catastrophic natural disaster or a public health event could have on the country's public finances.	**Countries:** IADB member countries **Events:** Severe or catastrophic natural disaster or public health emergencies	The affected country submits a Request for Verification of Eligibility to the IDB. The IDB then assesses the event based on predetermined criteria, including the type, location, and intensity of the disaster or health emergency.	- Potential delays in data collection and verification can slow down fund disbursement.
ADB: Contingent Disaster Financing	To provide quick-disbursing and flexible financing to its DMCs impacted by disasters.	**Countries:** Developing member country (DMC) **Events:** Natural disaster	- Disbursements are triggered after an actual disaster is confirmed by the DMC's declaration of a state of emergency, or its equivalent depending on the DMC's legislation or practice.	Coverage and disbursement: the CDF pre-specified disbursement conditions are linked to disasters triggered by natural hazards and do not cover health emergencies. (The special policy variations introduced in 2020 to temporarily expand the coverage of CDF to include health emergencies expired on 31 December 2021.)
African Risk Capacity Outbreaks &	To provide rapid	**Countries:** Senegal **Diseases:**	- Total laboratory confirmed cases (filoviruses)	- Uncertainty about case counts very early in an outbreak

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45. The table is based on the work of Nita Madhav and Ben Oppenheim (2024), "Parametric triggers for epidemic and pandemic financing solutions." Disease Control Priorities, 4th Edition, Volume 2: Pandemics

Epidemics policy	financing in the earliest stages of an epidemic	- Filoviruses - Meningitis	- Districts in alert and epidemic phase (meningitis)	
Pathogen Rx	To provide liquidity for private sector firms facing cash flow and/or operational disruption during an epidemic	**Countries:** Worldwide and regional **Diseases:** Infectious disease outbreaks	- Confirmed outbreak - Infections - Deaths - Sentiment Index - Proof of loss	- Coverage limited depending on geographic characteristics - Hybrid trigger, including indemnity component: proof of loss required
Munich Re Epidemic Risk Transfer Solutions	To efficiently reallocate epidemic and pandemic risk across various stakeholders	**Countries:** Worldwide and regional **Diseases:** Viral epidemic and pandemic outbreaks	- PHEIC - Civil Authority Restriction - Proof of loss	- Reliance on subjective triggers - Proof of loss required

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