



Financing Pandemic Preparedness and Response

Background paper 14

by

Elizabeth Radin and Chris Eleftheriades

Commissioned by the Independent Panel for Pandemic Preparedness and Response

The
Independent
Panel
FOR PANDEMIC
PREPAREDNESS
& RESPONSE



Table of Contents

- Introduction 2**
- Problem Statement: A failure to finance global public goods 2**
- Reviewing the Past - A Gap Analysis of Financing at Each Stage of the Preparedness and Response Cycle..... 4**
- Proposal10**
 - Aims and Scope10**
 - The Instrument11**
 - Money out - how will funding be used?12**
 - Triggers.....13**
 - Money-In14**
 - Approximate magnitude16**
 - Contributions.....16**
- Conclusion.....18**

A discussion paper commissioned by the Independent Panel Secretariat prepared by Elizabeth Radin and Chris Eleftheriades, Airbel Impact Lab, International Rescue Committee. We are grateful to colleagues who have provided their diverse perspectives and in particular to Ruth Hill, Conor Meenan and Cristina Stefan from the Centre for Disaster Protection for innumerable formative conversations and their contributions to, and feedback on, earlier drafts.

Introduction

While COVID-19 has raised many new questions about global health functions and how they are delivered, it has removed any doubt surrounding our readiness for a public health emergency with pandemic potential. The international community systematically underinvested in preparedness for decades and delayed financing for response when the outbreak hit, investments and actions that could have saved millions of lives and trillions of dollars in economic output.

A new approach is needed.

In this paper we briefly discuss the reasons for underinvestment in pandemic preparedness and response and review the performance of recent attempts to finance readiness capabilities and early actions that could contain outbreaks with pandemic potential. We argue that the international system lacks the financing architecture required to coordinate and accelerate investment in the global public goods required to contain outbreaks, and we derive a set of principles towards which reforms to the financing architecture should be oriented. Finally, we present a proposal for an international financing facility for pandemic preparedness and response, which embodies these principles.

We hope this discussion and proposal will contribute to the present debate around financing reforms, including in the context of the deliberations of the G20's High Level Independent Panel on Pandemic Financing.

Problem Statement: A failure to finance global public goods

Stemming a local outbreak before it becomes a pandemic is the definitive global public good. It is non-excludable, as no country can prevent others from benefiting, and non-rival, as one country benefitting does not limit the extent to which other countries can benefit. These attributes mean that countries are unlikely to invest adequately in global public goods, and that where some countries choose to invest, others intentionally or unintentionally 'free-ride'; that is, they benefit without contributing.

At a national level, public goods are typically managed through public policy and legislation, and are often financed through taxation, with citizens mandated to contribute. Where countries opt for progressive tax regimes, richer citizens contribute proportionately greater shares of their income to finance the provision of domestic public goods.

When the benefits of one country's investments in public goods spillover into other countries, international coordination of policy and financing is needed to ensure adequate investment and mitigate free-riding. When these spillovers are global - as is the case with pandemic preparedness and early response - this international coordination must be global.

However, erosions of twentieth century multilateralism have undermined our ability to coordinate and invest resources to generate these global public goods. Too often, investments in pandemic preparedness and early response have been deprioritised in higher income countries and relegated to discretionary aid in cooperation between higher and lower income countries.

Understanding the aim of effective preparedness and early response as producing global public goods has important practical implications for financing:

- While preparedness and response activities may take place at the subnational, national or regional level, the benefits are experienced globally. Therefore, financing for preparedness and response activities, even within low- and lower-middle-income countries, does not meet the OECD definition of aid as spending “*administered with the promotion of the economic development and welfare of developing countries as its main objective*”.¹
- This framing suggests we should be learning primarily from financing and governance solutions used to produce other global public goods. Financing models for global security, nuclear non-proliferation, stability of the international financial system, and reduced greenhouse gas emissions, are more relevant here than those for domestic public health activities whose benefits accrue primarily at the national level.
- The global public goods framing, and insights from financing for domestic public goods, suggests a progressive approach to contributions. Here ‘progressive’ has a specific meaning borrowed from tax policy - not only should richer countries contribute more, they should contribute a greater *share* of their incomes to finance public goods. This rationale is compounded by the disproportionate *gain* from pandemic preparedness and early response borne by middle- and high-income countries, who have experienced the majority of economic losses (in dollar terms) from COVID-19.²

From this framing, we derive the first three principles with which a financing facility for pandemic preparedness and response should comply.

Principle 1: All countries that benefit from preparedness and early response to contain outbreaks - which is all countries - should contribute to financing these global public goods.

Principle 2: Wealthier countries should contribute the most, not only because they can afford to pay more, but because they have more to lose from the economic disruption wrought by a pandemic.

¹ <https://www.oecd.org/development/financing-sustainable-development/development-finance-standards/officialdevelopmentassisteddefinitionandcoverage.htm>

² Numerous studies have estimated the total economic losses due to COVID-19 running into trillions or tens of trillions of dollars. For example, see <https://www.weforum.org/agenda/2020/05/coronavirus-covid19-pandemic-economy-money-depression-recession/>.

Principle 3: Because benefits accrue disproportionately in higher-income countries, their investment in other countries' and regions' preparedness and early response should not primarily be financed through aid budgets.

Reviewing the Past - A Gap Analysis of Financing at Each Stage of the Preparedness and Response Cycle

Preparedness: Despite years of policy discourse, compelling economic analysis, and technically credible solutions,³⁴ global investment in pandemic preparedness prior to COVID-19 remained “grossly insufficient”.⁵ While comparable figures for higher-income countries are hard to find, recent estimates suggest that international aid dedicated specifically to pandemic preparedness totalled just \$374 million worldwide in 2019.⁶ A further \$5.2 billion in international assistance was spent on strengthening domestic health systems and \$2.4 billion on infectious diseases (excluding funds for HIV/AIDS, tuberculosis and malaria, which jointly received \$13.5 billion in 2019).⁷ This wider spend is likely to have contributed indirectly to readiness for pandemic response, but was not invested in building and coordinating specialised preparedness capabilities dedicated to generating global public goods.

Even including this wider spending, investment in pandemic preparedness is dwarfed by investment in other global public goods, including global security and stability of the international financial system. Almost \$2 trillion was spent on defense in 2020 alone.⁸ A single financial stability standard cost major economies tens of billions of dollars.⁹

Progress on preparedness for vaccines shows what is possible with greater, more coordinated and more stable funding for activities and technologies that generate global public goods. The Coalition for Epidemic Preparedness Innovations (CEPI) was launched in 2017, to coordinate investments in vaccine development and to enable access to these vaccines during outbreaks. CEPI has received funding from more than 25 countries, the European Commission, philanthropists, and from individual donors. In addition to initial five year commitments from its founding contributors, CEPI more recently received two ten-year funding commitments from the Government of Norway. These commitments enabled CEPI to make sustained investments in game-changing technologies, including vaccines for COVID-19.¹⁰

³ <https://www.nejm.org/doi/full/10.1056/nejmsr1600236>

⁴ <https://www.brookings.edu/blog/future-development/2019/09/11/are-the-multilaterals-ready-to-act-on-pandemic-prevention-and-other-global-public-goods/>

⁵ https://apps.who.int/gpmb/assets/annual_report/GPMB_Annual_Report_English.pdf

⁶ <https://www.thinkglobalhealth.org/article/funding-pandemic-preparedness-global-public-good>

⁷ Ibid

⁸ [https://www.sipri.org/media/press-release/2021/world-military-spending-rises-almost-2-trillion-2020#:~:text=\(Stockholm%2C%2026%20April%202021\),Peace%20Research%20Institute%20\(SIPRI\)](https://www.sipri.org/media/press-release/2021/world-military-spending-rises-almost-2-trillion-2020#:~:text=(Stockholm%2C%2026%20April%202021),Peace%20Research%20Institute%20(SIPRI))

⁹ <https://www.fsb.org/wp-content/uploads/Assessing-the-economic-costs-and-benefits-of-TLAC-implementation.pdf>

¹⁰ <https://iffim.org/press-releases/norway-contributes-nok-2-billion-iffim>

While analysis from McKinsey & Company suggests that substantial up-front investment in preparedness capabilities is required,¹¹ these investments will only prove effective if matched with long-term financing to operate and maintain national, regional and global preparedness systems.¹²

Principle 4: To build preparedness capabilities, and maintain, adapt, and enhance them over time, we must be able to provide long-term, reliable finance for coordinated local, national, regional, and global systems.

Early Response: Calls for more effective international financing to contain new outbreaks *before* they become pandemics grew louder following the sluggish West Africa Ebola response in 2014. The WHO and World Bank Group took two months to approve and disburse funds during the outbreak,¹³ and when funding arrived, the operational response was fragmented and ad hoc.¹⁴ The outbreak ultimately claimed more than 11,000 lives and led to \$53 billion in foregone economic output. WHO analysis suggests that early access to even modest funds could have mitigated many of the adverse health consequences.¹⁵

This experience coincided with growing evidence around the potential of ‘disaster risk financing’ for natural hazards, with particularly eye-catching experiments in East Asia, Latin America and the Caribbean.¹⁶ The disaster risk financing toolkit - including earmarked contingency funding, parametric insurance and catastrophe bonds - was deployed in an attempt to help manage pandemic risk through two high profile instruments at the WHO and World Bank (see Box 1).

Box 1 - Early response financing innovations at the World Bank and WHO

The WHO’s Contingency Fund for Emergencies (CFE) was established in 2015 to (i) fund rapid responses in the event of a new health emergency; and to (ii) sustain or expand responses when existing crises spike or during acute funding shortfalls. The CFE can disburse up to \$500k within 24 hours to finance immediate response activities and is able to scale as required thereafter. The CFE is funded through donor replenishments, with Japan and Germany accounting for almost three quarters of \$53.9 million contributed in 2019. The 9th and 10th Ebola outbreaks in the Democratic Republic of the Congo (DRC) dominated the CFE’s allocations during 2018 and 2019. The fund spent just \$12.7 million on 23 other outbreaks in 2019.

¹¹ <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/not-the-last-pandemic-investing-now-to-reimagine-public-health-systems>

¹² [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)00503-1/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00503-1/fulltext)

¹³ Infectious disease outbreaks were not eligible under the World Bank’s flagship Crisis Response Window, until its scope was altered *during* the emergency. Under IDA19, the reformed Crisis Response Window will make available \$2.5 billion in concessional finance to help eligible countries (i) respond as a last resort to severe economic crises, natural disasters, and public health emergencies; and (ii) respond at an earlier juncture to slower-onset crises, namely disease outbreaks and food insecurity.

¹⁴ <https://www.lse.ac.uk/school-of-public-policy/assets/Documents/Social-Sciences-Response-to-Covid/LianaWoskie-Three.pdf>

¹⁵ <http://documents1.worldbank.org/curated/en/241811559646029471/pdf/Lessons-Learned-in-Financing-Rapid-Response-to-Recent-Epidemics-in-West-and-Central-Africa-A-Qualitative-Study.pdf>

¹⁶ For example, see <https://www.preventionweb.net/publications/view/28413> and <https://www.ccrif.org/>.

The World Bank's Pandemic Emergency Financing (PEF) Facility was established in 2017 to (i) make available essential surge financing to respond to an outbreak with pandemic potential, and to minimize its health and economic consequences; and to (ii) help catalyze the creation of a global market for pandemic insurance instruments. The PEF was established with two windows: the PEF Insurance Window, financed by payouts from pandemic insurance and pandemic bonds; and the PEF Cash Window, a more traditional trust fund financed by donor grants.

The PEF Cash Window was triggered for the first time during the 9th Ebola outbreak in DRC in 2018. Taking advantage of the sitting World Health Assembly, the World Bank was able to mobilise and allocate \$11.4 million to WHO and UNICEF six weeks after the outbreak was officially declared. This funding complemented national government resources, a rapid allocation from the CFE, and reallocation of other World Bank resources. The PEF Cash Window allocated a further \$50 million to help manage the 10th Ebola outbreak in DRC. The PEF's pandemic insurance and pandemic bonds did not trigger any financing during 2017-2019.

One month after declaring COVID-19 a Public Health Emergency of International Concern (PHEIC), the WHO's CFE and another major UN contingency fund - the Central Emergency Response Fund - had allocated a total of just \$23.9 million for COVID-19. Three months later, the UN's (then) \$6.71 billion Global Humanitarian Response Plan was just 5% financed; less funding had reached frontline responders.¹⁷

The PEF's Cash Window had been emptied in 2019, and the PEF's pandemic insurance did not trigger for three months following the PHEIC declaration. By the time the full \$196 million insurance payout was released in late-April 2020, it had to be shared among 64 countries, 59 of which were already managing COVID-19 outbreaks.¹⁸ Eligible countries had not been required to define how response funds would be used in the event of a payout prior to the emergency.¹⁹

While the CFE and the PEF are the most high-profile attempts to prepare financing specifically for pandemics *before* outbreaks manifest, numerous other international facilities were available to contribute response funding once the COVID-19 emergency was underway. For example, the IMF's Rapid Financing Instrument and Rapid Credit Facility began approving emergency lending to eligible countries from late-March 2020, while the IMF's Catastrophe Containment and Relief Trust began forgiving low-income country debt service due to the IMF from April 2020, financed in part through a new fundraising drive.²⁰

¹⁷ Little data is available to assess when, by whom, and how UN Global Humanitarian Response Plan funding is utilised.

¹⁸ <https://www.disasterprotection.org/latest-news/the-future-of-pandemic-financing-trigger-design-and-2020-hindsight>

¹⁹ A series of CDP blog posts discuss the performance of the PEF Insurance Window in more detail: <https://www.disasterprotection.org/latest-news/the-future-of-pandemic-financing-will-the-pandemic-emergency-financing-facility-create-a-global-market>

²⁰ <https://www.imf.org/en/About/FAQ/imf-response-to-covid-19>

Similarly, the World Bank's Fast-Track COVID-19 Facility for IDA-eligible countries began approving grants and concessional lending from April 2020.²¹ Some countries were also able to activate Catastrophe Deferred Drawdown Options (Cat DDOs) embedded within existing World Bank lending operations,²² though these resources made up a small minority over overall response financing from the IFIs.²³

Unlike the PEF and CFE, however, none of these other facilities was designed specifically to finance early response efforts to *contain* outbreaks with pandemic potential, and to generate associated global public goods. Moreover, the majority of World Bank and IMF facilities provide *debt* to low- and middle-income countries, and by far the fastest disbursing form of finance was budget support. Quite when, how, and even whether borrowing governments used budget support to contain the spread of COVID-19 remains unclear.²⁴ Therefore, when COVID-19 hit and the CFE and PEF failed in their stated objective of containing outbreaks with pandemic potential, none of these other facilities was ready to fill the financing gap during the critical earliest days and weeks of the pandemic.

Principle 5: To contain outbreaks and scale immediate response globally, we must be able to mobilise perhaps billions of dollars to execute well-prepared response plans at short notice.

Principle 6: To promote a seamless and rapid transition from preparedness to coordinated response, we must be able to finance these activities as a continuum, linking action before and during the early stages of a new outbreak.

Sustained Response Phase: Six months on from the WHO's PHEIC declaration, more than \$70 billion had been committed to low- and middle-income countries by multilateral agencies, and \$50 billion had been disbursed from these agencies to their partners. However, more than 90% of this finance was debt, meaning richer middle-income countries with greater borrowing capacity tended to receive more finance from multilateral agencies than poorer countries.²⁵ Similarly, while the G20's Debt Service Suspension Initiative (DSSI) allowed 46 countries to *defer* an estimated \$12.5 billion in debt service repayments between May 2020 and April 2021, borrowing countries were still expected to repay following cessation of the initiative in December 2021. Even humanitarian grants failed to target countries with lower incomes per person and greater estimated impacts of COVID-19.²⁶

Throughout 2020 and into 2021, IFI lending, often on concessional terms, continued to expand, to help finance sustained management of COVID-19, maintain macroeconomic stability, and begin investing in economic recovery (Figure 1). Perhaps most substantively, March 2021 saw "broad support" among IMF Executive Directors for an allocation of \$650 billion in additional Special Drawing Rights (SDRs) to support the global recovery.²⁷ The detail of how any additional allocation would be deployed was under

²¹ <https://www.worldbank.org/en/about/what-we-do/brief/world-bank-group-operational-response-covid-19-coronavirus-projects-list>

²² <https://www.disasterprotection.org/funding-covid19-response-12-months-on>

²³ Ibid

²⁴ Ibid

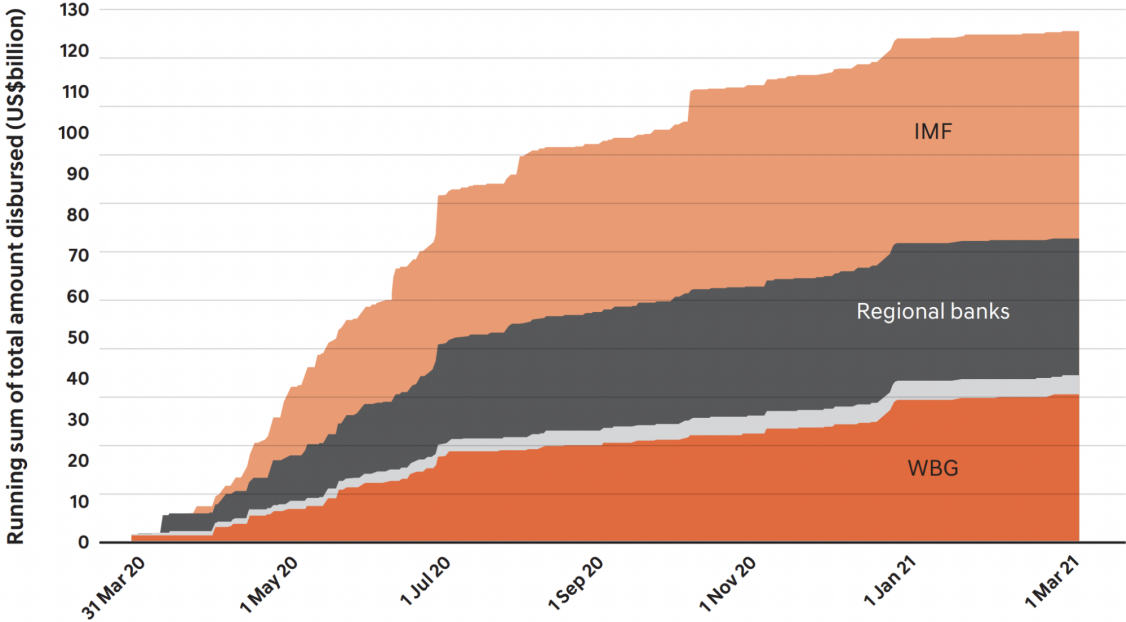
²⁵ <https://www.disasterprotection.org/funding-covid-19-response>

²⁶ <https://www.disasterprotection.org/s/covid19financialtrackingSeptemberFINAL.pdf>

²⁷ <https://www.imf.org/en/News/Articles/2021/03/23/pr2177-imf-execdir-discuss-new-sdr-allocation-us-650b-boost-reserves-help-global-recovery-covid19>

negotiation at the time of writing, though the IMF had signaled that staff would explore options for reallocating SDRs from countries with stronger financial positions to lower-income countries.²⁸

Figure 1: Development and humanitarian COVID-19 funding over time



Source: Center for Disaster Protection

Additional proposals on financing the sustained response to COVID-19 also center on the International Financial Institutions (IFIs). The Center for Global Development has suggested that the IMF could extend \$30 billion for vaccines by adding a vaccine financing window in an existing rapid financing facility.²⁹ Others have suggested using a mechanism similar to the International Financing Facility for Education (IFFEd) which allows multilateral development banks to borrow against earmarked donor guarantees, and on-lend long-term investment capital to lower-middle-income countries.

In this sense, we assess that while more funding could (and in our view, should) be made available to help low- and middle-income countries manage their sustained response to COVID-19, the *financing* tools and architecture are broadly in place to manage this phase should a more robust early response fail to contain future pandemics. The gap in grants and highly concessional debt to lower-income countries remains a major weakness; but this is primarily a question of the political will among higher-income countries to make such funds available through existing institutions and mechanisms.

²⁸ Ibid

²⁹ <https://www.cgdev.org/blog/new-imf-pandemic-window-could-provide-30-billion-finance-vaccines-developing-countries>

Delivery Landscape:

Despite gaps in financing, a constellation of implementing institutions exist to carry out the functions of preparedness and response at national, regional and global levels.

At a country-level, organizations such as The Global Fund and GAVI have track records of facilitating the development of country-led strategies and then funding into those strategies. National governments are generally best positioned to lead this strategy development and implementation process. However, in fragile and conflict affected settings, where national governments lack the capacity or the will to serve all citizens, nongovernmental organizations play a critical role at the frontlines, providing up to 80% of health services.³⁰

The Panel's review of the current pandemic and interim report also note that regional institutions, notably the Africa CDC, have played critical roles by strengthening regional surveillance, developing laboratory capacity, adapting global guidance, providing locally relevant technical assistance and facilitating pooled procurement of resources such as diagnostics.³¹

Finally, at the global level, numerous institutions exist to carry out key functions ranging from R&D (CEPI), to pooled procurement (ACT-A) to technical support and operational capacity strengthening (WHO Emergency Programme).

Creating new institutions at any of these levels would be inefficient, duplicating transaction costs as well as functions.

Principle 7: Institutional arrangements for new financing should be extremely lean with a focus on allocating funds to existing institutions.

³⁰ <https://www.rescue.org/sites/default/files/document/5378/irc-catalyzingtheusresponsetocovid-19inhumanitariansettings.pdf>

³¹ <https://www.devex.com/news/the-man-behind-africa-s-covid-19-response-98689>

Proposal

An International Pandemic Preparedness and Response Financing Facility to raise additional reliable financing for pandemic preparedness and for rapid surge financing for response in the event of a pandemic.

- *It should have the capacity to mobilize long term (10-15 year) contributions of approximately \$5-10B p.a. to finance ongoing preparedness functions. It will have the ability to disburse up to \$50-100B at short-notice by front loading future commitments in the event of a pandemic declaration. The resources should fill gaps in funding for global public goods at national, regional and global level in order to ensure comprehensive pandemic preparedness and response.*
- *There should be an ability-to-pay formula adopted whereby larger and wealthier economies will pay the most, preferably from non-ODA budget lines and additional to established ODA budget levels.*
- *The Global Health Threats Council will have the task of allocating and monitoring funding from this instrument to existing institutions, which can support development of pandemic preparedness and response capacities.*
- *Funding for preparedness could be pre-allocated according to function and institution. Surge financing for response in the event of a new pandemic declaration should be guided by prearranged response plans for the most likely scenarios, though flexibility would be retained to adapt based on the threat.*
- *The Secretariat for the facility should be a very lean structure, with a focus on working with and through existing organizations.*

Aims and Scope

The proposed facility aims to *fill gaps* in financing for the global public good of stemming outbreaks before they become pandemics. Activities that generate global public goods by preparing for or implementing early response (roughly the first 100 days after a PHEIC is declared) are in scope if not supported by an existing mechanism. These activities can be delivered at a national, regional or global level.

By the same standard, the following activities are not in scope:

- Domestic investments that primarily benefit a country's citizens; for example, building hospitals or training midwives.
- Addressing endemic diseases such as malaria, HIV, TB, vaccine preventable diseases.
- Social and economic support and stimulus to help countries manage the impacts of COVID-19.

- Sustained response beyond the first 3-4 months. We have noted that IFI and development bank capital kicked in at scale to cover months 3-18, and a bigger political decision looks likely on SDRs for ongoing response and recovery. The gap identified through our analysis was in financing preparedness and early response.

Our focus on filling gaps in the present financing architecture also implies a focus at the national and regional level on low- and lower middle-income contexts, where domestic financing will not be sufficient. This is not to minimize financing challenges in upper middle- and high-income countries. Rather it is to prioritize grants for global public goods where financing gaps are most acute, while looking to domestic budgets to provide a larger share of funding in upper middle- and high-income contexts.

The Instrument

At the core of this proposal are two primary financing innovations:

1. The facility would combine (a) stable financing for preparedness and (b) predictable rapid financing for response, through two windows within a single facility. This ensures that as soon as an outbreak is detected, response financing can be deployed seamlessly by *the same* architecture that is responsible for building and maintaining readiness.
2. The facility would deliver these two cash flows through a single instrument: a long-term funding commitment to stable annual contributions for preparedness and to capitalise a modest standing contingency fund. In the event of a major outbreak, these legally binding commitments can be used as collateral against which to issue social bonds for large-scale early response. This is effectively the same instrument used by the International Financing Facility for Immunisation (IFFim), to frontload R&D funding for GAVI, the vaccine alliance, and more recently for CEPI.³²

We discuss each of these components in further detail, using the Centre for Disaster Protection's 'money-out', 'money-in' framework.³³ In designing and describing a risk financing solution,³⁴ the Centre recommends (i) identifying and analysing the risk in question and the decision-making context; (ii) identifying how finance will be used before the risk manifests and in response ('money out'); and (iii) developing tailored financing plans, to ensure the right amount of funds are made available in the right place at the right time ('money in').³⁵ Linking 'money-out' and 'money-in' are 'triggers'. The Centre describes triggers as the 'moments that matter' in a crisis, around which operational response and financing plans can be prearranged.

³² See <https://iffim.org/>

³³ <https://www.disasterprotection.org/quality-assurance>

³⁴ While only the Response Window in this proposal is true risk financing, the same framework has proven valuable in describing the financing needs and assessing appropriate instruments under the Preparedness Window.

³⁵ 'Money out' precedes 'money in' in this framework, because financing plans and instrumentation should be determined by the preparedness and response strategy, not the other way around. This mirrors the IPPPR's approach to putting *function before form*.

Money out - how will funding be used?

Finance provided through the Preparedness Window would be pre-allocated by function and institution. The allocation formula should aim to fill gaps in existing financing in order to maximize the likelihood of preventing an outbreak from becoming a pandemic.

Financing should be prioritized based on gaps identified through ongoing monitoring and accountability activities. The Panel has proposed a global monitoring system whereby:

- WHO sets targets and benchmarks for measuring preparedness and response capacity,
- Countries align strategies and monitor progress towards these targets under the leadership of high-level pandemic coordinators,
- WHO leads universal periodic peer reviews
- International Financial Institutions monitor pandemic risk as part of their surveillance process, including the IMF's Article IV consultations.
- A high-level political council charged with preventing future pandemics oversees these processes and identifies critical gaps at all levels.

At the national level, the preparedness window would support the development and implementation of country-led preparedness strategies. These strategies should be informed by regular monitoring against global standards and aligned to global targets set by WHO. Financing should prioritize the active development and stress testing of preparedness systems over passive paper-based planning. This includes both simulating outbreaks and developing no regrets capacity that can be kept warm and put to good use addressing ongoing health needs.

At the regional level, the preparedness window should fund capabilities that provide (i) support to country-level preparedness such as technical assistance and adaptation of guidelines; (ii) enhanced cross-border communication and cooperation, for example through regional surveillance platforms; and (iii) pooling that leads to efficiencies, for example through bulk procurements of personal protective equipment or manufacturing capacity for key commodities.

These same principles would apply at a global level. In addition, the facility could finance platforms that produce key technologies and information. This could include filling gaps for the development of an end-to-end system for R&D, manufacturing, procurement and distribution, of key commodities, as well as enhanced approaches to surveillance.

The Response Window would combine (i) a modest standing contingency fund for relatively frequent localised outbreaks with (ii) capacity to borrow perhaps billions of dollars within 2-3 weeks to respond to major emergencies.³⁶

Use of response funds would be guided by *pre-arranged* financing plans for the highest-probability, highest-impact scenarios. Echoing CEPI's approach to prospective R&D, scenarios should be created for known pathogens with the greatest pandemic potential. Scenarios should also be developed for prototypes of a Pathogen X with varying epidemiological and clinical characteristics. Financing plans

³⁶ Globally, there are some 600 infectious disease outbreaks annually, of which 40-50 turn into country-level outbreaks or epidemics. Since 2007, six outbreaks have been declared Public Health Emergencies of International Concern (PHEIC) by the WHO.

would balance the need for rules to provide operational responders with confidence over the resources that would be made available under different foreseeable scenarios, while retaining some discretion to adapt in the face of unforeseen events.

The functions and eligible institutions would remain constant across the different response planning scenarios, but with different shares of funding depending on the demands presented by each pathogen and each outbreak. For example, a scenario responding to another Ebola outbreak in West Africa might prioritize regional surveillance and technical assistance as well as national level vaccine procurement, case finding, treatment and communications. Alternatively, a response scenario for a highly transmissible respiratory pathogen in a global transport hub might prioritize global R&D, manufacturing and procurement for vaccines, treatments and diagnostics and global procurement and distribution of PPE.

Triggers

Access to major surge financing through the response window would be triggered by the declaration of a PHEIC. This ties financial resources to the WHO's scientific assessment of the pandemic potential of a new threat, based on a combination of objective data, technical expertise and context assessment.

Making this link also has bearing on conversations currently underway about revising the PHEIC framework:

- Increasing the transparency and reliability of the PHEIC determination becomes all the more critical if it were to serve as a trigger for large-scale finance. Planners need to know whether and when they can anticipate an influx of resources in order to prearrange response strategies and systems.
- Recent suggestions that the PHEIC could reflect *tiers* of risk rather than a binary assessment could make it a more useful financing trigger. With a tiered metric, increments of financing could be made available at different stages of a crisis. For example, investigations could be funded as soon as an outbreak with pandemic potential is identified through the standing contingency fund; 'no regrets' containment measures could be funded on the basis of initial investigation before the existing PHEIC threshold is met; and major response efforts could be mobilised once a PHEIC is recognised.

This approach would also mitigate disincentives to share information early in an outbreak created by the binary PHEIC declaration. This is because earlier stage determinations would likely have lesser economic consequences, relative to the major trade and tourism disruptions caused by a PHEIC declaration once an outbreak is of true international concern.

We are not recommending that the PHEIC declaration automatically triggers precisely predefined amounts of funding; rather, a tiered PHEIC framework could trigger *access* to different levels of liquidity aligned to financing plans for priority response scenarios. The final decision on how much finance is required and precisely how it is deployed would rest with the Council though defaults would be set by prearranged plans.

Money-In

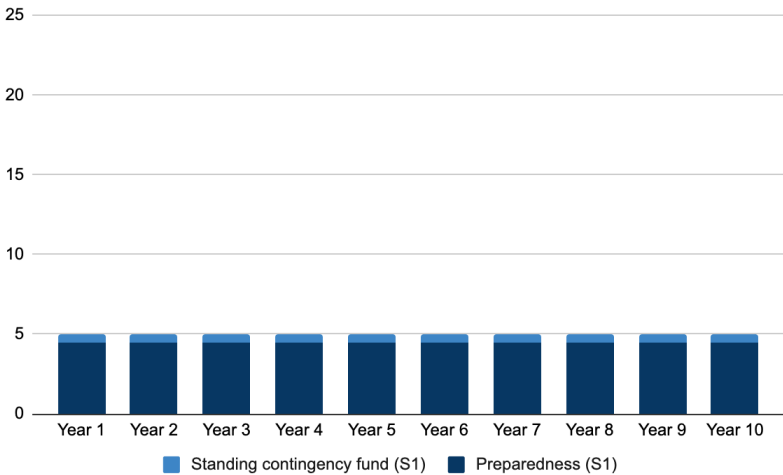
To achieve the dual objectives of stable budgeting for preparedness and rapid injections for response at scale, such a facility would be financed through long-term, legally binding advanced funding commitments. Much like IFFIm, these commitments would span 10-15 or more years and would be periodically extended, perhaps on a rolling annual basis.

As contributions are paid in, they would be used to finance the Preparedness Window and the standing contingency fund within the Rapid Response Window. However, in the event of a major outbreak, the facility would be able to *borrow* against future years' commitments to respond instantly at scale. As with IFFIm, borrowing would be repaid as planned contributions come in over time. Following each major outbreak, the facility would need to raise additional commitments to ensure that future preparedness budgets are not undermined; but this fundraising would by design coincide with an international focus on pandemic risk.

Figure 2 illustrates these cash flows. Panel (a) shows funding flows over a ten-year period with no outbreak that triggers access to borrowing. \$5 billion is paid into the facility each year, a majority is paid into the Preparedness Window with some funds (in this case 5%) paid into the standing contingency fund in the Response Window.

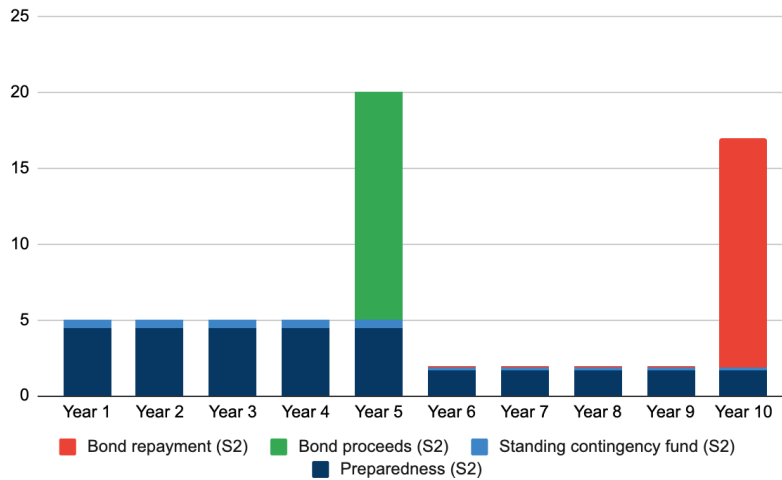
Figure 2: Illustrative funding flows

Panel a



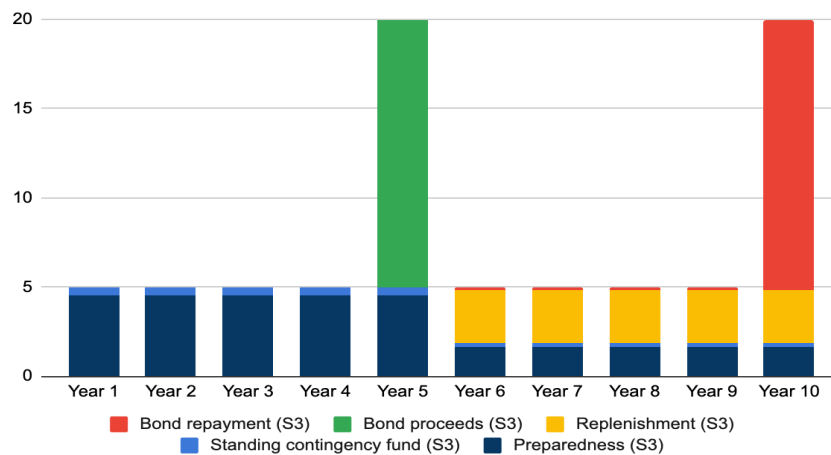
Panel (b) shows funding flows with a PHEIC declaration in year five. The Council can borrow up to \$25 billion, and in this illustration elects to borrow \$15 billion to finance early response. This reduces the amount of funding available for preparedness and the standing contingency fund during years 6-10 by approximately \$3 billion annually, as resources are preserved to cover a 1% annual coupon and repayment of the bond on maturity in year 10.

Panel b



Panel (c) shows the same scenario, but with a successful replenishment covering years 6-10.

Panel c



Under our proposal, funding commitments would be extended on a rolling annual basis. Assuming commitments were for ten years and extended by one year annually, the Council would have access to some \$50-100 billion liquidity at any given time, though the amount and nature of spend would be guided by predefined response plans.

This model does *not* attempt to transfer pandemic risk to private markets, nor does it require holding billions in reserve. Rather it secures advanced commitments from funders to ensure requisite liquidity to respond early and at scale when action is immeasurably more cost-effective. However, we do encourage further learning from the World Bank’s experience with pandemic insurance, and as data and evidence improve, we should revisit the potential role of instruments that can transfer specific aspects of pandemic risk to private markets.

Approximate magnitude

In estimating that the proposed facility would need to raise \$5-10 billion per annum for preparedness, and up to \$50-100 billion for early response, we aimed to balance cost-estimates for preparedness with what might be politically feasible to raise in the near term. To the first point, Center for Global Development recently summarized existing annual cost estimates for preparedness ranging from \$1.9-3.9 billion (WB 2012) to \$4.5 billion (NAM 2016) to \$20-40 billion at steady state after an initial surge (McKinsey 2020). This last estimate includes \$5-12 billion for *prevention* of outbreaks, however, which is not our focus.³⁷ We have also considered what might be *feasible* to raise based on the precedent of other global health financing efforts, our sense of the politics and feedback we have received to date.

The \$5-10 billion p.a. for preparedness falls within the range of existing estimates and seems ambitious but not impossibly large from a feasibility standpoint. The \$50-100 billion for response reflects the amount that can be accessed by rolling up the 10-year commitments of \$5-10 billion p.a. It would constitute a dramatic increase in access to early response financing compared to what was available in the first 3-4 months of the COVID-19 response. However, as noted above the specific amount required to contain an outbreak would depend on the pathogen and context and would be guided by prearranged response plans.

These figures are primarily intended to suggest an approximate order of magnitude for the facility. We acknowledge that rigorous costing exercises are ongoing, and we look to the G20 High-level Independent Panel in particular for their guidance and updates on the amounts required and feasible.

Contributions

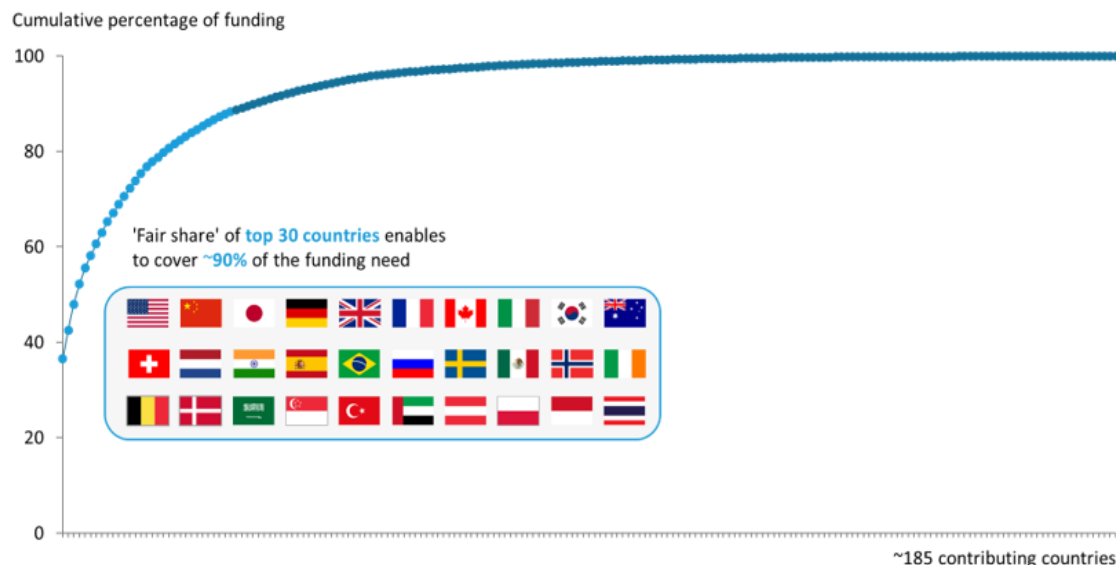
Effective financing for global public goods requires contributions from all countries, with the largest contributions coming from those who benefit the most and from those with the greatest ability to pay. As previously noted, countries with the largest and most open economies have suffered the greatest economic losses from Covid-19. Likewise, countries with the highest per capita wealth and the least inequality have greater ability to finance global public goods without undermining the welfare of their own citizens.

Recent analysis by Rottingen and colleagues demonstrates how three widely available macroeconomic indicators could be used to share costs such that countries with larger economies, more open economies, and greater per capita income pay more, in line with the progressivity principle. Under plausible parameters, the G7 would contribute 54% of total financing, the G20 would contribute 88% (Figure 3).³⁸

³⁷<https://www.cgdev.org/blog/financing-global-health-security-and-pandemic-preparedness-taking-stock-whats-next>

³⁸ <https://www.cgdev.org/blog/financing-global-health-security-fairly>

Figure 3: Cumulative contributions to financing of global public goods based on proposal by Rottingen et al



Source: <https://www.cgdev.org/blog/financing-global-health-security-fairly>

We look to the G20 High Level Independent Panel's further specifications and recommendations on how to implement fair, effective cost-sharing.

Governance

The Panel has recommended that the funds should be administered by the Global Health Threats Council, a multilateral, multisectoral body charged with high level political leadership, monitoring and accountability. The Council's primary responsibility and the aims of the financing facility -- ensuring that global health threats do not become pandemics-- are perfectly aligned.

The Panel has underscored the importance of elevating oversight of pandemic preparedness and response to the highest levels of political leadership. If we believe that pandemic management belongs on the desk of finance ministers and prime ministers as well as health ministers, then a governing body at the highest political level must have a role in allocating resources.

Through its monitoring and oversight function, the Council is best positioned to understand where financing gaps endanger the goals of robust preparedness and early response. While the Council would oversee funding, that oversight should remain a lean operation in order to avoid distraction from other functions of the Council and duplication of the work of other organizations.

Conclusion

“More money” is an easy response to any problem. But the Panel’s call is for specific financing for specific purposes. Our aims in this paper were to identify the primary financing gaps in the pandemic preparedness and response cycle, to diagnose underpinning drivers of these gaps, and to propose potential solutions that target these drivers directly.

In addition to funding needed for the current response, and more and different funding for WHO, the COVID-19 crisis, our analysis has revealed two particular challenges in respect of the global public good of effective pandemic preparedness and response: insufficient funding of pandemic preparedness at national, regional and global levels before the pandemic, and the slow flow of funding for response once the PHEIC was declared. We assess that preparedness and early response are underfunded because of the profound global public goods they generate, meaning all countries benefit from any country’s investment.

Much like financing for other global public goods, we recommend a multilateral (even global) solution, with countries contributing in proportion to their ability to pay *and* in proportion to the gains they derive. Both point to richer countries paying more, not only as international aid but as a core investment in their citizens’ security and in the security of the global economy they claim to steward.

Finally, we sketch the fundamentals of an International Financing Facility for Pandemic Preparedness and Response: two windows financed through a single instrument, delivering stable long-term cash flows for preparedness investments and capacity to frontload perhaps billions of dollars within 2-3 weeks to contain outbreaks through prearranged operational response plans.

We hope that this analysis and proposal contribute to deliberations of the G20 High Level Independent Panel on Pandemic Financing and the wider discourse.