



Advancing the Global Agenda for Pandemic Risk Assessment

How could a multisectoral scientific synthesis inform pandemic risk priorities and investments?

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The
Independent
Panel

FOR PANDEMIC
PREPAREDNESS
& RESPONSE



On 20 May 2025 in Geneva, at the time of the 78th World Health Assembly, The Independent Panel for Pandemic Preparedness and Response hosted a roundtable titled '*Advancing the Global Agenda for Pandemic Risk Assessment*', co-sponsored by the Permanent Mission of France to the United Nations Office at Geneva.

Chaired by The Right Honourable Helen Clark, Co-Chair of the Independent Panel, and HE Anne-Claire Amprou, French Ambassador for Global Health, the roundtable engaged around 20 participants from international organisations, academia, philanthropy, civil society and WHO member states.

This report provides the context and summarises the themes, ideas and questions emerging from an open discussion on the concept of a multisectoral scientific synthesis to inform pandemic risk priorities and investments.

Context

Whereas experts had long predicted a new pandemic would emerge and that countries were not ready for one, the appearance and spread of a novel coronavirus in late 2019 and early 2020 took much of the world by surprise. The subsequent health, economic and social consequences of the COVID-19 pandemic have been devastating and continue to reverberate.

Why were countries and their leaders so unaware of the risks and so unprepared to address them?

Filling the gap in synthesized pandemic risk assessment

One contributing factor is likely the lack of a comprehensive scientific effort that mapped out the evolving pandemic risk landscape. The Intergovernmental Panel on Climate Change (IPCC), for example, takes on this function for climate, synthesising evidence and outlining potential mitigation and adaptation strategies in anticipated, well-publicised regular reports. There is no such entity performing this function for pandemic risks.

Yet today the frequency and severity of infectious disease outbreaks and novel pathogens with pandemic potential are growing – exacerbated by climate change, loss of biodiversity, and the unintended or intentional consequences of scientific research. With some 100,000 commercial flights carrying over ten million people each day, it is in every country's interest to have a clear view of these risks, and to make strategic investments to mitigate them.

Both The Independent Panel and the G20 High-Level Independent Panel on Financing the Global Commons for Pandemic Preparedness and Response have proposed the creation of a scientific mechanism for large-scale evidence synthesis on pandemic risks and their drivers. Critically, a pandemic risk assessment body would be distinct from, but supportive of, efforts to monitor pandemic preparedness.

Discussion continues to explore the form and functions of such a mechanism. In October 2024, the UN Foundation, in collaboration with the US National Academies of Medicine, the Global Preparedness

Monitoring Board, and Fiocruz, and with support from PAX sapiens and the Skoll Foundation, held a global workshop on the topic.¹

Following the COVID-19 emergency, and in a rapidly changing risk environment, there is growing consensus of the need for a platform to assess pandemic risks and their drivers. This roundtable provided an opportunity to hear some initial views of stakeholders on the scope, functions, design, and ways of working for such a mechanism. The discussion was partly informed by a new Independent Panel policy brief on independent monitoring and accountability.²

The future architecture: the Pandemic Agreement

The discussion also linked to the newly-adopted Pandemic Agreement – which provides a guiding framework for efforts across pandemic prevention, preparedness and response through a One Health approach.

In this context, a pandemic risk assessment mechanism could provide evidence-based information to inform implementation of the Agreement. Articles 4 and 5, covering prevention and surveillance, including the One Health approach, are particularly critical. The reports provided by such a mechanism would be directly relevant for the eventual Conference of the Parties (COP).

The agreement will not come into force for some time given the pathogen access and benefit sharing annex must be negotiated and adopted first followed by a minimum of 60 ratifications. Yet Member States should now begin to take forward the commitments, including the preparatory work for the COP.

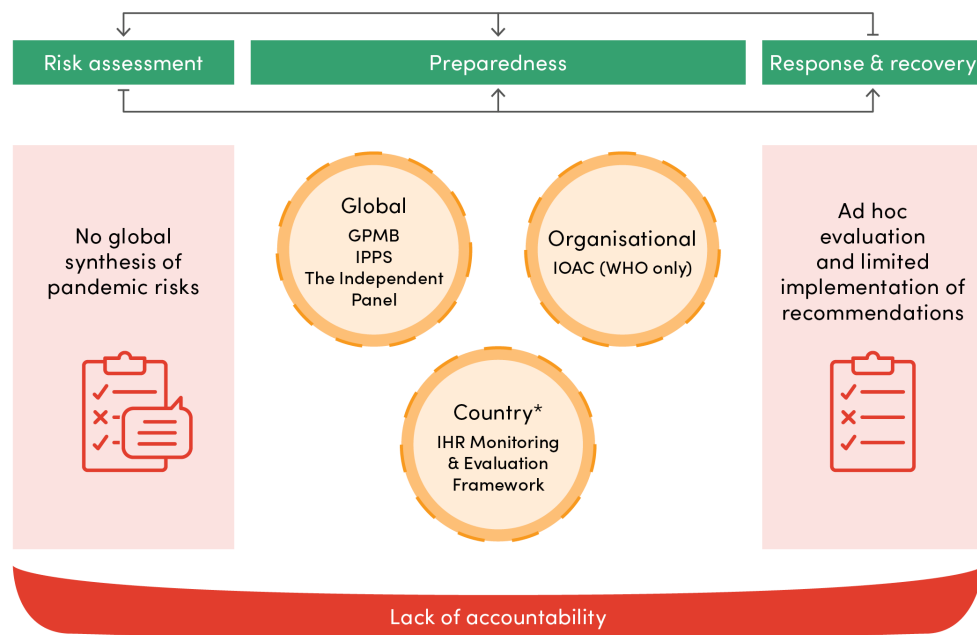
Monitoring of pandemic risks is distinct from monitoring of country preparedness, which is largely under the scope of the IHR monitoring and evaluation framework. It is equally distinct from monitoring implementation of the pandemic agreement. Yet these endeavours are mutually reinforcing and should form part of a holistic system that spans risks, preparedness, response and recovery (figure).

There are also notable changes on the horizon for the monitoring ecosystem, with the GPMB scheduled to wrap its work by end 2026 and the International Pandemic Preparedness Secretariat (which monitors the 100 Days Mission), set to do the same in the first quarter of 2027.

¹ Balatbat C, Shah CM, Oppenheim B. Pandemic Risk Assessment and its Intersection with Climate Change: Needs, Opportunities, and Design Considerations. 2025. Available at: <https://nam.edu/perspectives/pandemic-risk-assessment-and-its-intersection-with-climate-change-needs-opportunities-and-design-considerations/>

² Clark H and Johnson Sirleaf, E. The next pandemic threat could emerge anywhere: It's time to understand the risks and be certain we're ready. 2025. Available at: https://theindependentpanel.org/documents/monitoring_pandemic-readiness_final/

Fragmented monitoring of pandemic risk, preparedness and response



Source: Helen Clark and Ellen Johnson Sirleaf³

Context - Key reflections from participants:

- Discussions about a pandemic risk monitoring mechanism should consider how it can address fragmentation and critical knowledge gaps in the current ecosystem.
- The mechanism must function in a way that is supportive of and complementary to ongoing efforts.
- The mechanism should also align with the future PPPR architecture, including for example, how it will inform and support decision making the Pandemic Agreement Conference of the Parties.

Risk assessment is central to preparedness and response

At the height of the COVID-19 emergency, a pervasive idea emerged: that a pandemic phenomenon of this magnitude is a once-in-a-century occurrence. The idea is both dangerous and factually incorrect and contributes to the now well-worn 'neglect' phase that has followed large outbreaks and pandemics of the past.

³ Helen Clark and Ellen Johnson Sirleaf. 2025. [The next pandemic threat could emerge anywhere: It's time to understand the risks and be certain we're ready.](#)

In the last 25 years, a major outbreak has emerged every 5-6 years, including influenzas, coronaviruses, Ebola, HIV/AIDS, and mpox. The frequency and the diversity of these threats highlight the imperative of understanding the risk drivers and how these are changing over time.

Outbreak and pandemic risks are dynamic, from climate change, biodiversity loss, and land use to demographics and technological advances. Understanding how changes in these interlinked systems influence not only the likelihood of a pandemic, but the potential impact of one, is critical information for policy makers and global organisations working across prevention, preparedness and response.

“Preparedness efforts that are not risk-informed will do little to make countries ready for the next pandemic threat” - Helen Clark

Today, thousands of scientists around the world are working on distinct elements related to pandemic risk. Yet the lack of a mechanism to synthesise the latest evidence and distil this into relevant insights for policymakers leave major gaps in the collective understanding of what is needed to prevent future pandemics.

Risk assessment -key reflections from participants:

- A comprehensive synthesis of evidence on pandemic risk is a major gap within the ecosystem, with implications for efforts across preparedness and response.
- The evolving risk drivers, especially around climate, biodiversity and demographics, create many unknowns and an urgency to fill the void in pandemic risk assessment.
- Advances in science and technology make such a synthesis increasingly feasible.

The potential functions of a global risks assessment body

Advances in scientific methods and understanding have provided the tools to make far more accurate assessments of pandemic risks. The global scientific synthesis body would need to span a range of expertise and provide a framework for engagement, including between virology, ecology, epidemiology, public health and natural sciences.

Critical to this work is the ability to estimate the lived human experience of future outbreaks and pandemics, such as loss of schooling or work, the impact on mental health, or on social cohesion and trust in institutions. For this, social scientists must be heavily involved.

Proposals for the body's functions include:

- Assessing risk-impact relationships, including the frequency of large outbreaks and the potential human and economic consequences of these
- Assessing driver-risk relationships and how these interact over time, for example estimating the increase in zoonotic spill-overs in a +1°C warmer world.
- Scenario planning based on changing risk profiles
- Modelling the impact of prevention and preparedness policy interventions.

The body would be required to provide regular risk reports that inform and guide policy action. The cadence of reporting should be linked to both the speed of change of risks and to policymaking processes. Comprehensive reports could be supplemented by more focused, smaller reports on thematic issues of concern.

While the proposed mechanism is viewed primarily as a scientific exercise, akin to the IPCC for climate change, ensuring the outputs are directly relevant for and accessible to policymakers is critical. To ensure this, countries must be fully engaged in future discussions.

Potential functions - key reflections from participants:

- Stakeholders should continue to discuss the appropriate scope to achieve greater clarity on what issues, challenges, and gaps the mechanism will – and will not – address.
- Debates on function must consider operational feasibility, including how the proposed mechanism will be governed and financed.
- While guided by scientific principles, the outputs must be accessible, useful and applied by policy-makers.

The possible form of a global risks assessment body

A global pandemic risk assessment body could take various forms, with important considerations and trade-offs between the options. A body must at once provide a science-based, independent assessment, and have the participation and trust of countries.

The IPCC has been cited as a possible analogue. The intergovernmental nature of the IPCC brings legitimacy to the work, and helps to ensure country engagement with the process, but also brings complexities which necessitate compromise, including around governance. Importantly, the IPCC was formed in the 1980s in a drastically different global context, and appetite of countries to establish such a structure for pandemic risk assessment is unclear.

The Lancet Countdown on health and climate change is one example of an alternative model. This is an international, multidisciplinary collaboration, dedicated to monitoring the evolving health profile of climate change. It involves a community of global and regionally-focussed scientists, who contribute to annual reports. The drawback is that governments are less directly engaged.

Financing the mechanism is a critical consideration. The IPCC secretariat operates on a modest annual budget (around 6.7 million USD), however when accounting for resources required for the engagement of Member States and academics in the process, the overall costs are substantially higher. A risk assessment mechanism will require a viable, long-term, sustainable financing model built in at the start. In a vastly constrained global financing landscape, there are no simple solutions, but the question of *how* the mechanism will be funded must be explored in greater detail.

Potential form - key reflections from participants:

- There may be no perfect model for the mechanism. Open debate about the trade-offs between different models—particularly regarding independence, trust, and legitimacy—will be essential.
- Existing models can offer guidance, but direct replication may be unrealistic. One key question is: what would a 2025 version of the IPCC look like?
- Operational aspects must be considered from the outset, balancing what is desirable with what is feasible in the current political and fiscal context.

Sustained advocacy essential to link evidence to policy and practice

The primary goal of a pandemic risk assessment synthesis is to guide actions and investment to prevent outbreaks and pandemics, and to be ready to respond when these do occur. Making the case for such investments—which have long-term time horizons and often produce hard to measure outcomes—remains a challenge. The IPCC, for example, has a memorable 1.5-degree threshold, providing a rallying target for action.

Ensuring a pandemic risk assessment mechanism is not a purely technical and theoretical exercise requires sustained advocacy. Well-coordinated and financed advocacy not only bridges the gaps between science and policymakers but is key to delivering sustained change in policy and practice. The reports of a risk assessment mechanism would need be twinned with clear and targeted advocacy asks.

Advocacy - key reflections from participants:

- Embedding advocacy into this mechanism will be critical for overall success in linking evidence to policy.
- Elevating the issue and delivering the sustained political commitment and investment is a 10 to 15-year effort
- These needs coordinated and financed efforts. Much can be learnt from the climate community over the past decades.

A broad coalition needed to lead and shape these discussions

Discussions on a risk assessment mechanism remain in the early stages. As these debates advance, it is critical that the process is inclusive, with a broad coalition of countries, academics, international organisations, and civil society engaged throughout.

The adoption of the Pandemic Agreement is a historic moment. The momentum must now be used to work towards the actions needed to make the world safer from pandemic threats. Filling in the gaps in pandemic risk assessment is one key part of this.

About the Independent Panel

The Independent Panel for Pandemic Preparedness and Response was established by the World Health Organization Director-General in July 2020. Co-Chaired by Her Excellency Ellen Johnson Sirleaf and the Right Honourable Helen Clark, the Panel's mission was to provide an evidence-based path for the future, grounded in lessons learned from the management of COVID-19, to ensure countries and global institutions would effectively address pandemic threats of the future. The Panel delivered its main report, titled COVID-19: Make it the Last Pandemic, to the World Health Assembly in May 2021.

Since delivering on its original mandate, The Independent Panel's Co-Chairs and several members have continued to advocate for implementation of the Panel's evidence-based recommendations, and the Co-Chairs have since issued four follow-up reports. They most recently issued a series of policy briefs titled Pandemic Readiness in an Uncertain World, in May 2025.

The Independent Panel has received independent financial support for its ongoing work to monitor developments, produce regular reports, issue statements, and convene meetings and events with the aim of seeing through reforms of the international system for pandemic prevention, preparedness and response.

Read about The Independent Panel's previous and current work and priorities here:

<https://TheIndependentPanel.org/>