CEPI

New vaccines for a safer world

Our vision:

a world in which epidemics and pandemics are no longer a threat to humanity.

Our mission:

to accelerate the development of vaccines and other biologic countermeasures against epidemic and pandemic threats so they can be accessible to all people in need.

Correct as of August 2025.

The growing threat of emerging infectious diseases

As the COVID-19 pandemic made clear, in a world characterized by increasing population density, human mobility and ecological change, emerging and re-emerging infectious diseases are an ever-present threat to global health security.

We have entered a new era of epidemic and pandemic risk, evidenced by the increasing prevalence, speed and spread of outbreaks of emerging and re-emerging diseases. COVID-19 has killed millions of people and caused trillions of dollars of global economic damage. But it is not the first, nor will it be the last, pandemic of the 21st century.

In the last year the world has contended with a surge of mpox in the Democratic Republic of Congo and its neighbouring countries which is now spreading in West Africa, and deadly outbreaks including Marburg in Rwanda and Tanzania, Dengue in Brazil, Nipah virus in India and Bangladesh, Sudan ebolavirus in Uganda and Chikungunya in the Indian Ocean and East Africa.

Epidemic and pandemic diseases affect us all – they do not respect borders, so a global approach is needed to tackle this global threat. We must recognize that infectious diseases undermine our health, economic, and even national security – and plan, prepare, and invest accordingly.

Despite its devastating impact, the COVID-19 pandemic ushered in a new era in vaccine science. For millennia, humanity has battled with epidemic threats. But the advances made in response to COVID-19 have opened a new frontier in vaccine development – one which gives us the ability to significantly reduce the threat posed by all epidemic and pandemic infectious diseases. A decade ago, this prospect would have been unimaginable. Now, it is within our grasp.

It is vital that the world seizes this window of opportunity to capitalize on the scientific advances and political will that can prevent such devastation from happening again.

CEPI's ambitious strategy seeks to systematically reduce global epidemic and pandemic risk by delivering innovative, access-focussed R&D programmes that will accelerate the development of safe, effective and globally accessible vaccines to 100 days. Spearheaded by CEPI, this global goal is known as the 100 Days Mission and it has been embraced by the G7, G20 and industry leaders.

Because a world that is better prepared to deal with epidemic and pandemic threats is a safer world for all.

Introducing CEPI

The global need for an organization like CEPI was recognized after the devastating West African Ebola epidemic, which killed more than 11,000 people and had an economic and social burden of over $53 billion.[1]

The world's response to this crisis fell tragically short. A vaccine that had been under development for more than a decade was not deployed until over a year into the epidemic. That vaccine was shown to be nearly 100% effective,[2] suggesting that much of the epidemic could have been prevented. It was evident that the world needed a better system to speed the development of vaccines against known epidemic threats.

Global health experts agreed that the world needed a better way of tackling the long acknowledged 'market failure' which meant vaccine development for epidemics and pandemics had rarely advanced in 'peacetime' and proposed the creation of CEPI as an agent of that change. CEPI was launched in Davos in 2017 by the governments of Norway and India, the Bill & Melinda Gates Foundation, Wellcome, and the World Economic Forum.

Historically, vaccine development has been a long, risky and costly endeavour. Planning for emerging infectious diseases is especially challenging: the market potential for vaccines against these diseases is limited and testing such vaccines is difficult.

CEPI's access-focussed R&D programme is designed to address this market failure by investing in preparedness and innovation **now** to develop life-saving vaccines against known threats like Lassa fever and Nipah and to dramatically reduce the future risk of pandemics caused by a 'Disease X' by building the capabilities needed to deliver the 100 Days Mission.

CEPI's unique connecting role —as a coalition of vaccine developers, manufacturers, sovereign governments, philanthropies, civil society and global health organisations—and extensive networks allow the organisation to pool and deploy resources in ways that nation states often cannot, for the benefit of all.

A commitment to equitable access is inscribed in CEPI's DNA. It informs every aspect of CEPI's work and is core to the organisation's vision of a world in which epidemics and pandemics are no longer a threat to humanity.

To date, CEPI has received financial support from over 30 governments and philanthropic foundations, as well as private sector entities.

CEPI is headquartered in Oslo, Norway, and has offices in London, UK, and Washington, D.C. in the US.

1 https://academic.oup.com/jid/advance-article-abstract/doi/10.1093/infdis/jiy213/5129071

2 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5364328

Making the world a safer place

Since its inception in 2017 CEPI has catalysed action, from product and platform development to enabling sciences and manufacturing innovations, working worldwide to accelerate the development of vaccines for those who need them most.

To date, CEPI has made investments in over 70 vaccine candidates or platform technologies and an array of enabling science projects targeting its priority pathogens (Chikungunya, COVID-19, Ebola, Lassa fever, MERS, Nipah, and Rift Valley fever) and is advancing the development of rapid response platforms for vaccines to swiftly combat a future Disease X.

CEPI has contributed to world firsts for vaccines against many of its priority pathogens, bringing the prospect of protection against a host of previously neglected infectious diseases closer than ever before. These include the first licensed Chikungunya vaccine, the first ever Lassa fever and MERS vaccines in Phase II trials, the first Rift Valley fever vaccine to be studied in Phase II in an endemic region and vaccines against Nipah virus that are on the cusp of entering Phase II.

The organisation was among the first funders of COVID-19 vaccines, ultimately building one of the world's largest portfolios, seven of which were licensed. It conceptualised and co-founded COVAX – another world first – which delivered almost two billion doses of COVID-19 vaccines to 146 countries, saving an estimated 2.7 million lives in the lower income countries eligible for free doses.

CEPI's network of Global South vaccine manufacturing partners on three continents is helping to boost sustainable vaccine production and outbreak response manufacturing capacity, and its global networks of preclinical facilities and laboratories are ready to rapidly respond to outbreaks close to the source.

And CEPI has leveraged its unique role as a Coalition to galvanize support and drive progress for the 100 Days Mission, which has evolved from a high-level concept just a few years ago to a life-saving pandemic preparedness plan that, today, is embedded into health security strategies around the world.

Beyond its core R&D and manufacturing activities, CEPI acts a convenor and a catalyst, contributing thought leadership, driving action and fostering partnerships. CEPI's relentless focus on the 100 Days Mission, its leadership of COVAX and its central role working with the World Health Organization to build scientific consensus for the pathogen family approach for R&D all illustrate CEPI's contributions to creating a pandemic-free future for the world.

CEPI's plan to end pandemics

It's time for the world to unite and break the cycle of panic and neglect that has characterized our response to epidemic and pandemic diseases.

CEPI's pandemic-busting plan aims to substantially reduce or even eliminate the future risk of pandemics and epidemics.

The plan has three strategic objectives: **prepare** for known threats; **transform** the response to the next novel outbreak; and **connect** and enhance global collaboration to strengthen global preparedness.

Together, these objectives are making vital scientific, technical and policy contributions to the 100 Days Mission.

CEPI's focus areas include:

1) **Developing vaccines and other biologic countermeasures against known high-risk pathogens**. This work includes advancing the development of vaccines for Chikungunya, Lassa fever, Nipah, MERS and Rift Valley fever. Through this progress CEPI is generating crucial data and knowledge about vaccines for pathogens from many of the most dangerous viral families that will help the world to face down a future Disease X.

2) Working with partners to **build a vaccine library** for many of the most dangerous viral families- a repository of vaccine resources, capabilities and R&D and manufacturing data that maximises epidemic and pandemic preparedness and drives accelerated vaccine development when new threats emerge.

3) **Transforming and diversifying vaccine manufacturing** so it is cheaper, faster, and closer to an outbreak, by investing in manufacturing innovations; supporting Global South countries to develop sustainable manufacturing capacity; and establishing a global network of regional manufacturing facilities to respond to outbreaks.

4) **Advancing enabling science programmes which are critical to the success of rapid vaccine development**, including developing biological assays, preclinical models, epidemiological studies and diagnostics for priority pathogens; and building clinical trial capacity.

5) **Enabling equitable access to life-saving vaccines**, by leveraging R&D investments to enable access to the tools CEPI funds; supporting Global South countries to take ownership of their national health security; and advocating for the design of a global pandemic preparedness and response system founded on the principles of equitable access.

As a globally recognised driving force for R&D, CEPI is uniquely placed to coordinate this international approach.

CEPI offers a global focus on equitable access, a proven track record, the agility to move quickly, and extensive partnerships. It is able to leverage its unique connecting role to pool and deploy resources in ways that nation states often cannot.

Creating lifesaving vaccines in 100 days

At the heart of CEPI's strategy is the 100 Days Mission: a global goal, spearheaded by CEPI and embraced by the G7 and G20, to accelerate the development of new vaccines against emerging viral threats. That's just over three months from the recognition of the threat to a vaccine being ready for initial authorisation and manufacturing at scale.

Independent modelling shows in the starkest terms why the world needs to be prepared to move faster and more equitably. A successful 100 Days Mission in response to COVID-19 could have averted over 8 million deaths, 1.4 billion infections and 27 million hospitalizations with the greatest benefits felt in the Global South.

Coupled with improved surveillance providing earlier detection and warning, and with swift and effective use of non-pharmaceutical interventions such as testing, contact tracing and social distancing to suppress disease transmission, delivering a vaccine in 100 days would give the world a fighting chance to extinguish the existential threat of a future pandemic virus.

Accomplishing the 100 Days Mission will require a paradigm shift towards preparedness that will speed up vaccine development and delivery when an outbreak strikes. CEPI has identified the crucial scientific and technological innovations that would enable the world to develop new vaccines against future pandemic threats in a little more than three months and we are working with our partners to build these capabilities:

- **Creating a vaccine development library** including prototype vaccines for representative pathogens from virus families with the greatest pandemic potential.
- **Getting clinical trials networks at the ready** with pre-established processes and protocols capable of rapidly generating data cross a broad geographic area.
- **Speeding up identification of immune response markers** to help provide early indication of vaccine efficacy.
- Expanding and sustaining **global capacity to develop and manufacture** safe, and effective new vaccines quickly including in or near areas at high risk of disease outbreaks.
- **Strengthening disease surveillance** and global early-warning systems to enable faster outbreak-alert triggers.
- **Mitigating biosecurity and biosafety risks.**

CEPI's What Will it Take report describes these areas of innovation in more detail.

Working together to end pandemics

Now, for the first time in history, we can substantially reduce, or even eliminate, the risks posed by future outbreaks.

We have the tools. We know what needs to be done. Let's end pandemics forever.

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