

Shaping the Future of Global Health and Healthcare

# Managing the Risk and Impact of Future Epidemics

## Overview

**The recent Ebola crisis will not be the last serious epidemic the world faces; indeed, infectious disease outbreaks are likely to become ever more complex and challenging.** By 2050, the world's population will have risen to 9.7 billion. A combination of high population density, poverty, changes in social structures and a lack of public health infrastructure will create progressively more favourable conditions for communicable diseases. Meanwhile the increasing transnational flow of commodities, people and animals will magnify the transmission of these diseases, both between people and across the human-animal barrier. Advances in research and the discovery of diagnostics, drugs and vaccines have indeed saved millions of lives, but these gains remain fragile and are under threat from the growing resistance of micro-organisms to the most effective known medicines. **Innovative ideas, novel partnerships and new modalities for financing will be critical to mitigating the dynamic health threats to come in this century.**

As the International Institution for Public-Private Cooperation, the World Economic Forum is well positioned to leverage its partnership platforms for a multifaceted, coordinated approach to more effectively prepare for, and respond to, emerging outbreaks at national, regional and global scale.

To this end, the Forum, in collaboration with key partners from business, government, civil society and the multilateral community, has launched a two-year initiative to leverage and optimize public-private cooperation to manage future epidemics and, at the same time, contribute to reducing the risk of their occurrence altogether.

## Vision

*Risks associated with emerging infectious diseases of pandemic potential will be managed through innovative, cross-industry and cross sectorial public-private cooperation, strengthening national and global health security.*

Consequently, the project aims to:

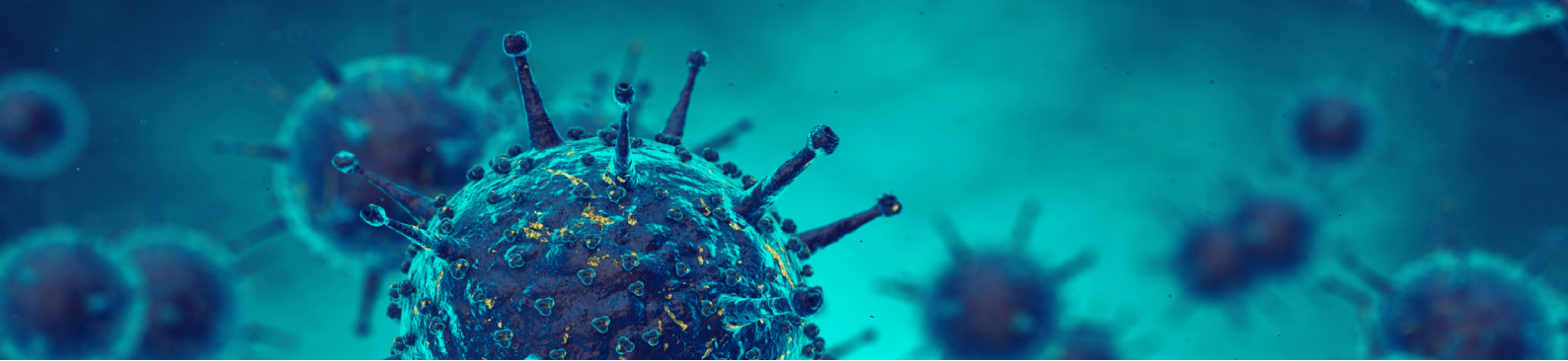
- devise systemic solutions to tackle complex health security issues
- break sectorial silos and accelerate access of new actors to engage, invest and transform the preparedness and response to emerging infections of epidemic potential
- identify and enable innovative private-sector responses to public-health emergencies
- build a long-term narrative linking health and health security to business resilience and economic growth

## Impact

The project will advance dialogue and action on global, regional and national health security issues through the exploration of innovative, cross-industry, cross sectorial solutions. In a first phase, the project will explore the creation of **national coordination mechanisms in high-risk geographies** and facilitate international efforts to **advance innovation in the field of vaccines where there are insufficient markets or technologies** (i.e. pathogens of epidemic potential).

Over the course of 2016-2017, the project will:

- Define a crisis preparedness and response coordination mechanism to optimize public-private cooperation at country-level, taking into account different depths of analysis and flexibility for specific country settings
- Develop an implementation toolkit for replicating local networks in other countries and assess the feasibility for a scaling-up at the sub-regional level
- Advance a global effort to develop vaccines for priority pathogens and coordinate efforts for optimized preparedness for epidemics
- Convene high-level dialogue to evaluate further actions for the broader global agenda



## Areas of Focus 2016-2017

### National Coordination Mechanisms for Optimized Preparedness and Response Strategies

The recent outbreak of Ebola Virus disease (EVD) in West Africa created an unprecedented challenge for the governments of the affected states and their partners from the international community to manage the crisis and bring the disease under control. Aiming to mitigate the significant social and economic impact the disease has had on many West African countries, the crisis highlighted the need for better coordinated and more robust partnerships to be established early on and that are more inclusive of business and civil society agencies.

In this context, of the lessons learned from the EVD experience, some are positive, others negative. Favourably, the EVD response triggered a range of innovative, flexible partnership responses from business and civil society that complemented the channels of official assistance to affected countries. Many of these arrangements, however, were late in coming and might have benefited from the support of a more inclusive and diverse range of actors, as well as through the more optimal leveraging of extant in-country resources and expertise.

Following high-level dialogues at Davos (2015) and Cape Town (2015), senior leaders expressed a desire to design country-specific communication platforms to better define and optimize public-private cooperation in health emergencies. Agreement and interest from the governments of four pilot countries (Guinea, Liberia, Mali and Nigeria) have resulted in initial efforts to identify options for a national coordination mechanism for public-private collaborative action, aiming to:

- Create local networks between in-country business operators, ministries of health and relevant international organizations, for preparedness and response to future disease outbreaks
- Define a coordination mechanism to replicate and scale to other country settings
- Contribute to a more global effort to assist the international community to recognize, align and better leverage private-sector contributions for preparedness and response to outbreaks

### Accelerating Vaccine Innovation for Pathogens of Epidemic Potential

The 2014 Ebola outbreak in West Africa also highlighted the urgent need for a new approach to the development of vaccines for infections of epidemic potential and ancillary innovative financing mechanisms to leverage support. The SARS pandemic, the 2009 H1N1 pandemic, MERSCoV, Zika, Lassa Fever, the Ebola epidemic and many others have demonstrated the lacunae in the world's ability to respond effectively to these types of public-health emergencies.

Mounting evidence shows that the current model to rapidly develop vaccines in preparation for infectious disease outbreaks is failing. Consequently, stakeholders from international organizations, the public and private sectors, academia and non-governmental organizations agreed at the World Economic Forum 2016 in Davos-Klosters, Switzerland, to explore new types of collaboration to promote vaccine innovation, to address neglected diseases and their threat to public health. This initiative is currently known as "CEPI", the [Coalition for Epidemic Preparedness and Innovation](#).

CEPI efforts aim to develop an innovative partnership model, adopting an "end-to-end" approach to vaccine development, to:

- Advance the development of specific, effective vaccines, where there is no commercial market, to the stage where there is proof of principle of efficacy and safety
- Develop vaccines that can be used in the context of an epidemic, or prophylactically
- Provide a hub for the coordination of global efforts around development of vaccines for preparedness

## Engagement

The Steering Committee enables cross-sector input on various strategic areas of the initiative and offers a platform to circulate key insights and information. The committee comprises senior executives, world-class experts, key decision-makers and civil society leaders. Members of the Steering committee participate in two (60 minute) phone conferences and one face-to-face meeting.

## Interaction

Multistakeholder meetings hosted by the Forum in 2016-2017:

- Interactive Workshop, New York City, USA, 27 October, 2016
- First Steering Committee Call, 5 December 2016
- Pandemic Simulation, New York City, USA, 9 December 2016
- World Economic Forum Annual Meeting, Davos-Klosters, Switzerland, 17-20 January, 2017
- Second Steering Committee Call, 20 March, 2017
- World Economic Forum on Africa, Durban, Republic of South Africa, May, 2017

## Related Reports

Managing the Risks and Impact of Future Epidemics  
[http://www3.weforum.org/docs/WEF\\_Managing\\_Risk\\_Epidemics\\_report\\_2015.pdf](http://www3.weforum.org/docs/WEF_Managing_Risk_Epidemics_report_2015.pdf)

*Global Risks Report 2016; Global Disease Outbreaks; pg 59-66.*  
<http://www3.weforum.org/docs/Media/TheGlobalRisksReport2016.pdf>

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