Animal Welfare.
Worldwide.

A Proposed Financial Intermediary Fund (FIF) for Pandemic Prevention, Preparedness and Response Hosted by the World Bank

Input on White Paper

Need for Prevention – Tackling the Root Causes of Pandemics

The frequency and severity of zoonotic pandemics and epidemics - SARS, Ebola, and HIV - are increasing and COVID-19 has again demonstrated clear gaps at every level of our ability to prevent, predict and respond to zoonotic disease outbreaks. The current health mechanisms and processes have failed in part because they are not built on a holistic understanding of the interconnectedness between humans, animals and the environment.[1]

FOUR PAWS stresses the need for pandemic *prevention* measures addressing the root causes of zoonotic pathogen emergence, spread, and mutation at the source in line with a One Health approach (as defined by the One Health High Level Expert Panel, OHHLEP) in the first place.

Prevention of pathogen spillover at source

Three out of four emerging infectious diseases originate in animals, the majority of which originate in wildlife. A growing body of evidence confirms that ecosystem degradation and the exploitation of animals exacerbate the risks to humans from zoonotic diseases. These risks are further increasing due to globalisation and unsustainable consumption patterns.[2]

Preventing the spillover of zoonotic pathogens at source aims to eliminate risk factors for the transmission of infectious diseases from animals to humans. This includes outcomes that promote better animal welfare and health as well as the cessation of high-risk practices i.e., there is significant consensus from the scientific community that the interaction with wildlife and humans is considerably risky.

Such *prevention* measures reduce pandemic risk, avoid the high costs of post-spillover containment, and bring ancillary benefits. Steps include improved management of farmed animals, regulations on wildlife trade and conservation of tropical forests. Furthermore, they can boost greenhouse-gas mitigation and wildlife conservation[3] as well as addressing antimicrobial resistance, another global health threat.

No matter where a pandemic starts, all countries will suffer from it, and it can only be eradicated with a globally supported and coordinated response. Therefore, it is in the interest of higher-income countries to ensure that all countries, especially those with limited resources, have taken all measures to prevent outbreaks at the source. This would be a first step in encouraging global health justice. A yearly investment of €1.8–3.2 billion to strengthen animal health and human health systems would yield an estimated global public benefit of more than €28 billion annually, a return on investment of 10 to 1 or higher.[4]

Costs & benefits – why prevention is cheaper than cure

The global costs of preventing the next pandemic by limiting deforestation and tackling wildlife trade have been estimated at a yearly €20 billion, merely 5% of the global annual value of lives lost due to zoonotic diseases.[5] The

[1] https://theindependentpanel.org/wp-content/uploads/2021/05/COVID-19-Make-it-the-Last-Pandemic_final.pdf
[2] https://wesr.unep.org/media/docs/early_warning/zoonoses.pdf
[3] https://cdn1.sph.harvard.edu/wp-content/uploads/sites/2343/2021/08/PreventingPandemicsAug2021.pdf
[4] https://apps.who.int/gpmb/assets/annual_report/GPMB_annualreport_2019.pdf
[5] https://www.science.org/doi/10.1126/sciadv.abl4183, https://www.science.org/doi/full/10.1126/science.abc3189,

measures to stop deforestation consist of eliminating subsidies that support deforestation, supporting territorial rights of indigenous people, implementing direct forest-protection payments that economically outcompete deforestation (this latter approach has proven to be more effective than carbon-pricing).[6] Cost assessments of tackling wildlife trade focus on enforcing existing international conventions such as CITES, banning and enforcing bans on high-risk species and supporting communities who rely on wildlife for essential nourishment.

The global costs of the COVID-19 pandemic lie between €7.6 and €14.8 trillion.[7] Yet COVID-19 is far from being the only zoonosis claiming human lives and disrupting economies. Research estimates the global value of lives lost due to zoonoses at a yearly €327 billion (at a lowest estimate) with an additional €198 billion in direct economic losses.[8] At the same time, prevention tackling the root causes of pathogen spillover from animals to humans is estimated to require annual investments of approximately €20 billion. In other words, prevention would cost around 5% of the yearly value of lives lost from emerging infectious diseases.[9]

Available research does not take into account the cost estimates of major outbreaks of pathogens in livestock (such as Japanese encephalitis, the swine flu or the avian influenza). Yet the outbreaks in livestock cause considerable economic losses, and experts warn that the mutating pathogens may soon become transmissible between humans, triggering the next human pandemic. A 2022 IUCN report states that the global trend in large scale industrial production of pigs, poultry and farmed wildlife species is coincident with pandemic emergence of highly pathogenic human or zoonotic influenzas, and coronaviruses.[10]

The COVID-19 pandemic will take decades to recover from. Twenty years of poverty reduction efforts have been wiped out, with as many as 150 million people pushed into extreme poverty.[11] The pandemic is also eroding gains against HIV, TB and malaria with disruptions to malaria services which could result in a doubling of mortality while an additional 400,000 people could die from TB.[12]

Tackling the root causes of zoonotic disease emergence in order to safeguard public health is the most sustainable and cost-effective investment we can make while simultaneously supporting global health and development outcomes. To be effective, the proposed Financial Intermediary Fund (FIF) for Pandemic Prevention, Preparedness and Response must therefore prioritise prevention measures that mitigate the risk of zoonotic pathogens emerging, mutating, and spilling over to humans. This must include measures aimed at eliminating the risks associated with wildlife trade and intensive livestock farming.

[6] https://www.science.org/doi/10.1126/science.abc3189
[7] https://www.science.org/doi/10.1126/science.abc3189
[8] "To compute how much to spend on preventing spillover, we tabulated every novel viral zoonosis that has appeared since 1918 that killed at least 10 people (Fig. 1 and Table 1). Our core analysis includes Spanish influenza; this improves our ability to calibrate the tail of the distribution composed of severe events that only occur a few times in 100 years. We also present results obtained with that event excluded. Last, we used these data to calibrate a hyperbolic distribution of annual mortality relative to the current world population for novel emerging viral infections. The data provide the frequencies and mean severities of all outbreaks and of severe events. We then use this information to calibrate the remaining parameter of the hyperbolic distribution. See details in the Supplementary Materials." https://www.science.org/doi/10.1126/sciadv.abl4183#core-R3
[9] https://www.science.org/doi/10.1126/sciadv.abl4183#core-R3
[10] IUCN, 2022. Situation analysis on the roles and risks of wildlife in the emergence of human infectious diseases
[11] https://www.worldbank.org/en/news/press-release/2020/10/07/covid-19-to-add-as-many-as-150-million-extreme-poor-by-2021
[12] https://apps.who.int/iris/bitstream/handle/10665/336069/9789240013131-eng.pdf