

# A Disease Threat Anywhere is a Disease Threat Everywhere



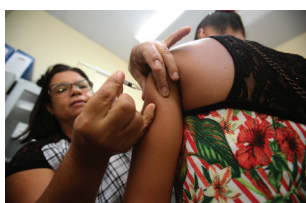
## Epidemics can Spread Quickly

The Zika virus spread from Brazil to 25 additional countries in one year. More than 1 million people were infected, and hundreds of babies were born with brain abnormalities.



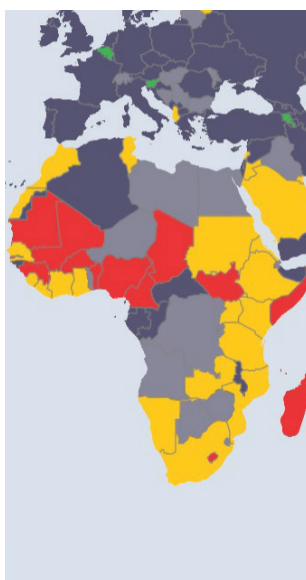
## Epidemics can Devastate Regional Economies

Sierra Leone, Guinea and Liberia lost \$2.8 billion USD in 2015 as a result of the Ebola epidemic, in addition to 28,000 lives lost.



## Epidemics can Cause Dramatic Loss of Life

In 2013 as many as 60,000 people died from yellow fever in Africa, a vaccine-preventable illness.



## No Country in Africa is Prepared for the Next Epidemic

Diseases don't respect borders. Improving preparedness not only protects individual countries, it can protect regions and continents.

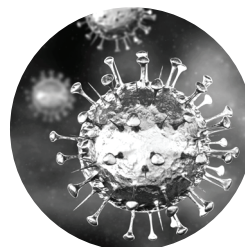
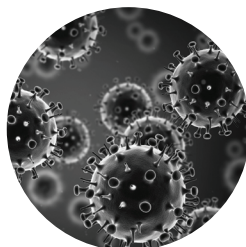
## The Frequency, Diversity and Intensity of Epidemics is Increasing

Over the past decade, there has been an upward trend in new epidemics, caused by:

- International travel
- Emerging disease threats in regions of instability
- Regional conflict, migration, urbanization, and environmental degradation
- Enhanced ability to manipulate pathogens with pandemic potential

# Epidemic Preparedness

## *A High-Yield Investment*



## Epidemics have profound economic and fiscal impacts

### EBOLA

In 2015, Sierra Leone, Liberia and Guinea collectively sustained an estimated loss of **\$2.8 billion in GDP**.<sup>1</sup> The combined mortality and economic impact of Ebola is estimated to have amounted to **US \$53 billion**.<sup>2,3</sup>

### H1N1

The 2009 H1N1 flu pandemic cost an estimated **US \$45~55 billion**.<sup>4</sup>

### SARS

China's GDP growth reduced by an estimated **1-2 percentage points** following the 2003 SARS epidemic,<sup>5</sup> with the global GDP falling by **\$40 billion**.<sup>6</sup>

- Epidemics impact **all aspects of a country's economy**: tourism and trade decline; export and import of goods slow down, including agriculture exchanges; manufacturing stalls; unemployment rises; lost incomes and school closures affect households and labor markets; demand for services drop; foreign direct investments are delayed or canceled altogether.
- Epidemics trigger **long-lasting fiscal shocks**. Drops in economic activity lead to declines in public revenues. At the same time, crisis response expenditures rise, exacerbating budget deficits. Sierra Leone, Liberia and Guinea government revenues dropped by 4.8 to 9.4% in 2015.
- Even the most conservative models suggest pandemic risks are **on par with other high-profile economic threats**, including climate<sup>7</sup> or natural disasters.<sup>8</sup>

## Investing in preparedness is less costly than responding and yields a high return

- While specifics vary, the economic impact of outbreaks is invariably, "**Far more expensive—in lives and money —than investing in preparedness,**"<sup>9</sup> according to the World Bank.
- Relatively small annual spending can limit high future losses. **Improved preparedness would cost less than \$1 per person per year**.<sup>10</sup>
- A global yearly investment of **US\$ 1.9–3.4 billion to strengthen health systems would provide an estimated global public benefit of over US\$ 30 billion annually**.<sup>11</sup> High return on investment is expected even if only some epidemics are prevented.
- Preparedness efforts to reduce disruption from outbreaks support **funding institutions and private sector confidence**<sup>12</sup> in a country's ability to withstand epidemic shocks.

1. <http://www.worldbank.org/en/topic/macroeconomics/publication/2014-2015-west-africa-ebola-crisis-impact-update>

2. Fan VY, Jamison DT, Summers LH. 2015. The Inclusive Cost of Pandemic Influenza Risk. NBER Work Pap Ser. 2015; 22137:24.

3. <https://academic.oup.com/jid/advance-article/doi/10.1093/infdis/jiy213/5129071>

4. Funding challenge for furthering One Health activities, Olga Jonas, Draft, October 26, 2018

5. <https://www.mitpressjournals.org/doi/10.1162/1535351041747905>

6. Lee J-W, McKibbin, WJ. 2004. Estimating the Global Economic Costs of SARS. Institute of Medicine (US) Forum on Microbial Threats, 2004. <https://www.ncbi.nlm.nih.gov/books/NBK92473/>

7. [https://www.ipcc.ch/site/assets/uploads/2018/02/SYR\\_AR5\\_FINAL\\_full.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf)

8. [https://www.unisdr.org/2016/iddr/IDDR2018\\_Economic%20Losses.pdf](https://www.unisdr.org/2016/iddr/IDDR2018_Economic%20Losses.pdf)

9. <http://documents.worldbank.org/curated/en/979591495652724770/pdf/115271-REVISED-FINAL-IWG-Report-3-5-18.pdf>

10. <http://pubdocs.worldbank.org/en/890291523304595565/FINAL-IWG-Report-3-5-18.pdf>

11. <http://documents.worldbank.org/curated/en/612341468147856529/People-pathogens-and-our-planet-the-economics-of-one-health>

12. [www.healthfinancejournal.com/index.php/johcf/article/download/69/71](http://www.healthfinancejournal.com/index.php/johcf/article/download/69/71)