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$113 BILLION CAN PREPARE LOW- AND MIDDLE-INCOME COUNTRIES TO PREVENT AND RESPOND TO EPIDEMICS

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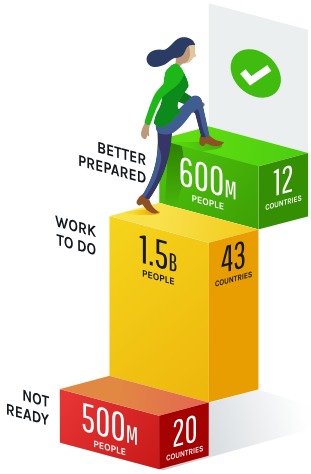
Analysis commissioned by Resolve to Save Lives shows that low- and middle-income countries need just $113 billion USD over the next five years to be better prepared for infectious disease threats.

Shortcomings in global health security have been amply demonstrated by failures during the COVID-19 pandemic. International Health Regulations (IHR) guide countries in how to prevent, detect and respond to outbreaks. With $113 billion, the world's low-and middle-income countries could "get to green" for all IHR metrics, demonstrating capacity to prevent and respond to the next pandemic.

The world economy will likely lose over $20 trillion due to COVID-19[1] alone — supporting countries to get to green is a worthwhile bargain.



KEY FINDINGS

$113 billion is needed over next five years to support low-and middle-income countries to meet IHR requirements — an average of just $3.20 per person per year.

Because startup costs are higher in early years, it is crucial to make funding available rapidly.

$52.4 billion is needed for detection, $41.4 billion for response, $26.8 billion for prevention, and $3.3 billion for other IHR-related activities.

Investment in personnel, a critical component of health security, makes up 66% of total estimated costs.

Background

Funding to help prevent and respond to future outbreaks has been insufficient and unpredictable. Supporting countries to meet the World Health Organization's (WHO) International Health Regulations (IHR) allows resources to be mobilized strategically to fill the funding gaps needed to prepare for future epidemics.

Methods

To identify priority activities for funding, Georgetown University carried out an analysis of preparedness gaps based on countries' self-evaluations of compliance with IHR requirements (captured using the Electronic State Parties Self-Assessment Annual Reporting Tool, or e-SPAR)[2]. Based on identified gaps, researchers estimated the amount of funding needed to achieve "demonstrated capacity" on all IHR indicators over a five-year period. Satisfactory capacity — referred to colloquially as "getting to green" — is reflected in a score of at least 4 out of 5.

1 https://www.dw.com/en/coronavirus-global-gdp-to-sink-by-22-trillion-over-covid-says-imf/a-56349323

2 Resolve to Save Lives provided funding and technical support.

Results

The study found that over five years, an estimated $124 billion is needed for every country in the world to reach “demonstrated capacity” for all IHR indicators, an average of $3.20 per person per year. Low-and middle-income countries account for $113 billion of that total.

These results are consistent with the findings of independent analyses conducted by WHO and McKinsey and Co., which estimated country-level capacity building costs over a period of five years to be $107.2 billion and $102-196 billion, respectively.

All three estimates agree that costs are highest in the early stages of capacity building, highlighting the importance of making funds rapidly available.

Over a five-year period, $52.4 billion is needed for detection, $41.4 billion for response, $26.8 billion for prevention, and $3.3 billion for other IHR-related activities.

Personnel is a priority area for investment; the COVID-19 pandemic has demonstrated once again the importance of a safe and protected health workforce, a recognition further enshrined by the World Health Assembly in its resolution adopted in May of 2021: Protecting, safeguarding and investing in the health and care workforce. Across all IHR metrics, personnel was a leading contributor to costs, comprising 66% of the five-year total. Personnel costs included both the estimated costs of additional skilled health workers (physicians, nurses and midwives), as well as those of developing and maintaining an operational public health workforce, including laboratory workers, animal health workers and support staff.

Funding for national and sub-national laboratory start-up — an estimated $10.8 billion — was also identified as critical; laboratory upkeep will require an additional $5.1 billion over five years. Other important cost drivers include materials, especially those scaled at the population or facility level (e.g., stockpile kits per capita, materials for laboratory facilities per intermediate area) and antimicrobial resistance training at hospitals.

Table 1: Select cost drivers of total 5-year costs. All costs reported in approximate 2021 USD and rounded to the nearest tenth of a billion.

Pillar	Activity	Total cost estimate (5 years)
Prevent	Personnel costs for skilled healthcare workers	$10.5 billion
	Personnel costs for national animal health workers	$2.7 billion
Detect	Personnel costs for skilled health workers	$23.7 billion
	Start-up costs for national laboratory facilities	$10.8 billion
	Upkeep for national laboratory facilities	$5.1 billion
	Personnel costs for trained field epidemiologists	$3.2 billion
Respond	Personnel costs for skilled health workers	$29.4 billion
	Costs to stock and maintain a strategic national stockpile	$4.7 billion
Other	Establish and staff diagnostic facilities at designated points of entry	$2.3 bilion

Table 2: Distribution of 5-year costs, by implementation year

Income	Year 1	Year 2	Year 3	Year 4	Year 5
Low income	$10.7 B	$7.7 B	$8.5 B	$9.3 B	$9.7 B
Lower middle income	$11.8 B	$9.1 B	$9.9 B	$10.6 B	$11.0 B
Upper middle income	$5.3 B	$2.3 B	$2.3 B	$2.3 B	$2.3 B
High income	$5.4 B	$1.4 B	$1.4 B	$1.4 B	$1.4 B

Conclusion

Smart investments now can better prepare the world to prevent, detect and respond to future outbreaks. While these estimates are not all-encompassing (they do not include, for example: drinking water, sanitation and hygiene (WASH) targets from the Sustainable Development Goals or other measures needed to fully protect communities and address inequities in health), they represent a realistic target to support low- and middle-income countries to get to green. These investments would be a critical down payment on our collective health security. Modest funding of $113 billion can better prepare the world to stop the next COVID-19 before it happens.