Monitoring Global Health Security and Pandemic Preparedness

Background and Rationale

Pandemics occur regularly, have increased in frequency and severity in recent decades, and remain one of the leading risks for a major economic, political, and health catastrophe in the near future. The recent West African Ebola crisis revealed broad failures in the international community to manage disease outbreaks effectively. The total cost of that crisis was more than $10 billion with over 11,000 lives lost. The World Bank estimates that a severe influenza-like pandemic would reduce Gross World Product (the global GDP) by as much as 4.8%, which corresponds to an economic loss of more than $5.5 trillion, in addition to the loss of tens or even hundreds of millions of lives. The highest economic and health burden associated with major infectious disease outbreaks stems not from direct mortality and morbidity of that disease, but the potential collapse of the health system in response, the losses in productivity and consumer confidence, declines in trade and travel (with cascading impacts on other sectors domestically and in other countries), and disruptions in the daily life of the non-infected. Effective communication, fear management, and whole-of-society preparedness to respond effectively will shorten and improve the trajectory of an outbreak, reduce impacts on vulnerable populations, and prevent increases in poverty and social unrest.

There is consensus that earlier reporting, improved diagnostics, better coordination, and core public-health systems could have averted the crisis that developed during the Ebola epidemic in West Africa in 2014-16. Most of the human, economic, and social costs were preventable and occurred due to late, mediocre, and chaotic responses by the governments and their partners. Multiple major reports, several of which were co-authored or produced by the National Academy of Medicine (NAM) and Harvard Global Health Institute (HGHI), recommended specific reforms to ensure better prevention and preparedness moving forward. Surprisingly, there was broad consensus across nearly all the reports of the specific causes of the failures with Ebola and the specific steps that need to be taken to make the global community better prepared. These include recommendations in areas such as strengthening core public-health systems, engaging the private sector, investing in research and development, and greater international coordination.

The Proposed Initiative

Encouraged by Dr Jim Kim, President of the World Bank, the NAM and HGHI along with a coalition of partners and stakeholders are in the early stages of launching a major effort to establish an independent, international initiative to monitor and report on pandemic preparedness to ensure that the world is prepared for the next major outbreak. HGHI, with input from partners and experts, recently developed a four-pronged, multisectoral Monitoring Framework with quantitative indicators to track preparedness over time and report back to the international community. The four major areas of this Framework include: 1) Strengthening Public Health as a Foundation (IHR Core Capacity Building), 2) Improving Science, Technology and Access; 3) Risk Analysis and Assessment, and 4) Global Community Resilience.


These include: 1) Neglected Dimension of Global Security: A Framework to Counter Infectious Diseases Crises” (National Academies Press); 2) “Will Ebola change the game? Ten essential reforms before the next pandemic” (Lancet); and, 3) “Post-Ebola reforms: ample analysis, too little action.” (The BMJ).
A. The Process

NAM and HGHI jointly held the first strategic consultation with experts at NAM in Washington, DC on April 18th, 2017. More than 50 leading technical experts from around the world participated in this event. The goals of this meeting were to discuss the draft Monitoring Framework and its indicators (mostly quantitative and some qualitative) and to elicit strategies to collect and disseminate data for maximum impact.

NAM, HGHI, and a coalition of partners are in the process of revising the Monitoring Framework based on the feedback received from the first strategic consultation. The initiative will move forward with formation of working groups arranged around each of the four workstreams and then collecting data in each of the content areas of the Framework, validating the indicator values, analyzing status in each area, and synthesizing and reporting this analysis to the international community on a regular basis. The operating assumption is that this will serve as a-permanent global monitoring mechanism.

B. Governance and Coordination

NAM will work with the InterAcademy Partnership (the international consortium of academies of sciences) to create a high-level international Commission to oversee the work, where NAM will serve as the Secretariat. The international Commission will provide strategic guidance and support development and implementation of targeted dissemination strategies for reports and analyses. The international Commission will also seek collaboration with influential international organizations such as the International Association for National Public Health Institutes (IANPHI) on all aspects of the project, from data collection to oversight. Above the Commission will sit an Oversight Committee drawn from the InterAcademy Partnership.

NAM and HGHI will ensure effective coordination across organizations and institutions engaged in the monitoring of pandemic preparedness and global health security. In addition, NAM and HGHI will engage individuals and organizations from outside the OECD, including members of civil society and NGOs such as Médecins Sans Frontières and others working on the front lines in outbreak settings. The NAM and HGHI will seek to align their work with that of other organizations working on pandemic preparedness and risk assessment, including the Graduate Institute in Geneva, Chatham House, Johns Hopkins University, and others. NAM and HGHI will work closely with each of these partners to ensure a smooth coordination of activities, sharing of results, and amplification of the findings of the work.

C. Roles and Responsibilities

Specifically, NAM and HGHI envision the following activities for the Monitoring & Reporting functions:

- NAM will convene annual meetings with coalition members and relevant international experts to carefully examine progress (and gaps) in data collection, analysis and dissemination. Participants will

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3 Participants came from Tsinghua University, US CDC, US Department of Health and Human Services, OIE, CEPI, the World Bank, Johns Hopkins Center for Health Security, the Center for Global Development, Center for Global Health Science and Security at Georgetown University, the JEE Alliance, PAHO, WHO, Duke Global Health Institute, the African Center of Excellence for Genomics of Infectious Diseases, Redeemer’s University, the World Economic Forum, the Center for Strategic and International Studies, The BMJ, SGTF, Bill & Melinda Gates Foundation, and other institutions.
review, discuss, and, as warranted, revise the Monitoring Framework, and also review the monitoring process, including its coordination, and evidence of impact.

- **The International Commission**, supported by the NAM Secretariat, will be an inclusive committee consisting of key stakeholders to provide high-level strategic guidance that draws on One Health and other relevant multisectoral perspectives and strengthens the performance of the project. The International Commission will also prepare for the Commission’s annual meeting, engage in resource mobilization, and advise on dissemination (including access to G20 meetings). NAM will collaborate and align efforts with key stakeholders, including the Graduate Institute of Geneva, Chatham House, IANPHI and others.

- **The Oversight Committee**, drawn from the InterAcademy Partnership, will select representation from its approximately 50 different academies from around the world and bring an additional layer of scientific credibility, strategic guidance, global relevance, and dissemination opportunities for the project.

- **HGHII**, working in close partnership with the NAM Secretariat, will conduct day-to-day project management including engagement of coalition experts from OECD and non-OECD countries, coordination with key global health security mechanisms (e.g., the JEE Alliance), and coordination of working groups responsible for each of the four workstreams of the Monitoring Framework. HGHII will convene and coordinate the coalition international partners and other experts in order to collect and analyze data on a regular basis and track progress. HGHII has already begun identifying potential technical leads and coalition partners for this work and engaging them in the revision of the Monitoring Framework. Interim meetings with coalition experts will be held to gather and analyze data, at various locations around the globe to facilitate participation from developing countries.

- **Other institutions**, including but not limited to the Graduate Institute of Geneva, Chatham House, John Hopkins University, and Georgetown University, will be engaged on a regular basis. These other institutions may be identified as additional providers of indicator data, through a process to be determined. NAM and HGHII will ensure that efforts across institutions are not duplicated and that goals and objectives are aligned. One desirable approach is to include these institutions as key members of the Commission.

**D. Key Outputs**

- Annual Report based on the annual meeting convened at the NAM that takes stock of progress and gaps along each of the four workstreams and reviews metrics, refining the Monitoring Framework as needed.
- Periodic reports based on meetings around the four workstreams by HGHII and partners.
- Dissemination of results, analyses and recommendations through peer-reviewed journals, global health events, policy forums and newspaper outlets by HGHII and partners.
- Interactive website to promote collaboration across the coalition and engage a broader audience. Website to be organized around each of the four workstreams and provide an opportunity for all those working in pandemic preparedness and global health security to send in and also access information as it becomes available. To serve as an additional evidence-based dissemination channel to influence policy and decision makers as well as a dynamic, online community of practice.
Monitoring & Reporting on Global Health Security and Pandemic Preparedness

Countries
[Use of JEE tool, Performance of Veterinary Services, and other assessments, & capacity building]

Private Sector,
Academia, Civil Society & Govt
[New Diagnostics, Therapeutics, Vaccines, Access]

Economic, human, animal, man-made & whole of society risks
[New & existing indexes & other measures]

UN, WHO, OIE
[International Coordination & response]

Public Health as a Foundation
(IHR Core Capacity Building)

Improving Science, Technology & Access

Risk Analysis & Assessment

Global Community Resilience

Monitoring & Reporting Coalition – HGHI & Academic Partners
(Independent academic institutions & think tanks from Africa, Asia, LAC, Europe & US) – Partnerships formed for data collection & progress reporting

International Commission (convened by NAM)

International Oversight Committee