

## Governance for Global Health: Reflections on the Ebola Experience in West Africa

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30 September 2015, Royal Society, London

### Introduction

This is a summary of the joint event hosted by the Academy of Medical Sciences, the Royal Society and the US National Academy of Medicine entitled 'Governance for Global Health: Reflections on the Ebola Experience in West Africa'. The event took place at the Royal Society in London, on Wednesday 30 September 2015, a recording is available from the Royal Society's website.

The event was held to support the Commission on Global Health Risk Framework, to share findings from its recent workshops and engage with UK stakeholders. Sir John Skehel FRS FMedSci welcomed the speakers and attendees to the event, and highlighted the role of the US National Academy of Medicine in initiating and driving this project. He then passed proceedings over to Professor Sir John Beddington CMG FRS who chaired the presentations and subsequent discussion.

At the time of writing, the Commission's work is still ongoing. Any views reflected herein by the Commissioners do not necessarily reflect the conclusions or recommendations of the Commission as a whole. The Commission is seeking to publish recommendations in December 2015.

### Background

Dr Patrick Kelley introduced the Commission on Global Health Risk Framework as an international, independent, multi-stakeholder expert commission established to create a global health risk framework for the future. Their aim is to produce a comprehensive, authoritative, non-political study that will be helpful to the efforts of international bodies such as the United Nations and World Health Organisation, national governments, health systems, the financial and other private-sector industries, and civil society organisations to increase their ability to control future outbreaks of global significance.

The Commission has conducted a series of workshops addressing the following key areas:

- Governance for global health
- Financing response to pandemic threats
- Resilient health systems
- Research and development of medical products

In developing the report, the Commission will consider lessons learned from the recent Ebola outbreak and other global outbreaks, such as H1N1 influenza, Middle East Respiratory Syndrome (MERS), and Severe Acute Respiratory Syndrome (SARS). It is expected to publish recommendations in December 2015, and feed into the World Health Organization Executive Board meeting in January 2016.

## Summary of presentations and discussion

The panel for the event consisted of the following speakers:

- **Dr Victor Dzau** – President of The National Academy of Medicine, USA
- **Mr Peter Sands** – Commission Chair, Former CEO at Standard Chartered PLC and Senior Fellow at the Mossavar-Rahmani Center for Business & Government, Harvard Kennedy School.
- **Professor Lawrence Gostin** – Commission Member, University Professor, Georgetown University and Director of the O'Neill Institute for National and Global Health Law.
- **Professor Oyewale Tomori** – Commission Vice-Chair, President, Nigerian Academy of Science, former Vice-Chancellor of Redeemer's University, Nigeria and former Regional Virologist for the WHO Africa Region.
- **Dr Maria Freire** – Commission Member and President of the Foundation for the National Institutes of Health, USA.
- **Dr Patrick Kelley** – Director, Board on Global Health, Institute of Medicine, USA.

The speakers and subsequent discussion addressed the four key areas set out by the Commission's workshops, as well as the origins and structures of the initiative itself.

### ***Origins and structure of the initiative***

Dr Kelley noted that global threat frameworks had existed for centuries, but that the twenty-first century had created a new backdrop – driven by globalisation, travel and growing populations – which had changed the landscape for health risks.

He saw a need for a new, updated architecture. One which was able to identify and empower leadership before a crisis was underway, that could coordinate diverse stakeholders (from public and private players, to global and regional bodies), that operated on a foundation of evidence and carried accountability and which, ultimately, could react to contain a threat in a timely manner.

The initiative grew from conversations between the National Academy of Medicine and the World Bank, spurred by the Ebola outbreak and the loss of life and collateral damage generated. Its aim is to set out a vision for a global health framework, applicable across known and yet-unknown health risks, to capture the lessons learned from the Ebola crisis and previous pandemic events.

The issues to be addressed go beyond science alone, and the independent and international Commission therefore draws on cross-disciplinary expertise, including finance, industry and diplomatic experience. To create meaningful impact, the outcome of this initiative must engage beyond just the science and health communities, to induce wider change.

Having held four workshops across the four main themes set out under the Commission, the Commission will shortly begin deliberating and drawing out recommendations. This event was hosted as an opportunity to reflect on that evaluation process and share views on the task ahead. This work occurs alongside other parallel projects, and the Commission has been working closely with partners to ensure that outcomes and timings are coordinated to ensure maximum impact. While the independence of the process is paramount, these parallel reports are able to lend complementary strengths to each other and reach different audiences in order to generate impact.

While some of the recommendations may reflect back on those reached in earlier exercises, a key element of this process will be to drive implementation – to ensure existing frameworks genuinely adapt to the new landscape in which they operate.

### ***Financing response to pandemic threats***

Mr Sands discussed the reaction to risk, noting that understanding and dealing with risk was everyday business for financial institutions, but was not always readily appreciated by those responsible for supporting health responses. He felt that banks and financial organisations should be central to any pandemic response, and that the massive economic impact of such outbreaks was often poorly understood and overlooked as a piece of the recovery process.

He highlighted his concern that the global risk of pandemics did not seem to reach higher than Health Ministers, and was poorly understood by global leaders such as Chancellors and Prime Ministers. Without this higher level of attention, there wouldn't be the political driving force to induce the scale of change needed. He felt that framing the risk in the language of the recent financial crisis would help translate the threats into a model which remains front-and-centre in the minds of Treasury officials, and which had resulted in action.

Mr Sands drew attention to some parallels he saw between the 2008 financial crisis, and the pandemic situations being addressed by the Commission:

- *Underestimation of risk* – there was a systematic and substantial under-appreciation of the risks present, leading to the community being slow to identify and react to the crisis.
- *Unusual behaviour* – the risk profile developed in unexpected ways, invalidating many of the models used to understand likely outcomes, and catching the community unaware.
- *Attitude to preparation* – preparation to mitigate risk was not prioritised, despite the value of a well-planned and effective response.
- *Perverse incentives* – transparency suffered as there was little incentive to be linked to the chain of contagion, a feature particularly prevalent during the recent Ebola crisis.

However, a major difference between the scenarios was connectivity. Within the financial world, activities in small, low-income economies generally have minimal effect on operations in high-income settings. This is not the case with health threats, and developed nations cannot insulate themselves from risk elsewhere.

The financial resources needed for effective action are relatively small compared to those instituted in the aftermath of the financial crisis, and the Commission has focussed on three areas:

#### *1. Which aspects of the response architecture needed financial resource?*

There is a need to build sustainable and resilient local health services, with some nations unable to achieve this through self-funded means. This needs to be complemented by a well-funded research base operating over a long timeframe, to allow the community to outpace potential threats. There is also need to give greater attention to the recovery phase and ensure long-term damage is mitigated.

#### *2. What were the sources of this support?*

Local resources, including tax receipts and borrowing, were established sources of funds. But these frequently needed greater coordination with donor funding, within mechanisms capable of accommodating both existing and new sources of donor aid. There also needed to be clear avenues for involvement of private funding sources, especially those able to mobilise rapidly.

#### *3. Which mechanisms could achieve this goal?*

There is already an established framework for insurance finance for natural disasters such as earthquakes and tsunamis, but the Commission will need to assess whether this will work for pandemics where action is needed before the threat is fully-fledged.

Crucially, the answer to each of these issues varies by country, and is especially problematic in fragile states such as those experiencing civil conflict. There is also a need for ongoing evaluation of mechanisms – stress-testing is an established feature in many industries, but less common in health response planning. The Commission will consider the role for independent assessment of core capabilities with nation states, which could provide a concrete metric for stakeholders to hold governments to account.

### ***Governance for global health***

Professor Gostin highlighted that governance issues stretched horizontally across all the work streams within the Commission's remit. Good governance is essential to the delivery of all other outcomes, and needed to extend from a national level down to individual institutions.

Within the Ebola crisis, we saw the result of a fragmented landscape of players. Similar results were observed in the years following the 2010 Haiti earthquake, whereby readily available funding could not create an effective resolution due to inadequate governance.

Professor Gostin noted that well-prepared states need to appreciate that they are only as strong as their weakest neighbour or institution. An effective solution needs to encompass the full spectrum of stakeholders, from international institutions such as the UN, to public-private partnerships such as the Global Fund, to philanthropic organisations, to private bodies and the public.

Professor Gostin saw several key challenges for future:

#### *1. Mobilising funding*

This needs to be central within a new governance structure, and should incentivise positive action. Although resource provision during the Ebola crisis was forthcoming, this funding wasn't mobilised rapidly enough nor in the most effective directions.

#### *2. Coordination*

Leadership is needed to ensure synergy between donors and minimise wasteful duplication. Areas such as mental health provision in the aftermath of catastrophic events have frequently been neglected. Internationally-binding rules already exist – the World Health Assembly revised the International Health Regulations after the SARS outbreak. This agreement between 196 countries, coordinated by the WHO, is intended to help countries build capacity to detect, report and respond to public health events. However, states and organisations are not complying and the current system of self-assessment is not creating the level of adherence required.

#### *3. Good governance*

The implementation of good governance needs to systematically institute targets, measurable indicators and ongoing evaluation to ensure that implementation occurs. The process needs to occur transparently, with all players involved and held accountable.

As it draws together recommendations, the Commission will consider numerous governance models. These include various models in which the WHO is reformed to increase its capacity to lead, either alone or as the lead of a United Nations cluster. It was noted that the current WHO

budget is extremely constrained and falls below that of major hospitals in many cities, it is also largely pre-allocated with only 20% available as responsive funding. A further option is the establishment of a new independent body able to act within this domain.

### ***Resilient health systems***

Professor Tomori discussed the need for resilient and sustainable health systems to be at the heart of any pandemic response, both for treatment and for detection prior to a threat developing. He reminded attendees that the Ebola outbreak was successfully contained within a number of resource-poor nations, demonstrating that health systems didn't need to be complex, but simply able to effectively implement the necessary control measures.

Professor Tomori felt there was an urgent need to strengthen existing national capacity, and to integrate health systems across disciplines – from medical professionals, to social experts, to veterinary medicine specialists. As demonstrated by the recent Ebola crisis, donor support is, and will continue to be, important but it is vital that it supports national plans and ensures country-ownership of programmes that are able to carry local political support. Surveillance initiatives need to extend down to the community level, creating an environment that builds local capacity, both for routine and emergency health care. Professor Tomori expressed concern that emergencies such as the Ebola crisis needed to leave a legacy of expertise in Africa, rather than only within response teams and researchers in donor nations.

A great deal of change has occurred in settings such as Africa in the last 20 years, and pandemic response plans need to leverage the potential for greater data capture through the increasing data infrastructure present in these locations. The effective use of location monitoring of field sites and clinicians via GPS was one such example of this being put into action during the Ebola outbreak.

The construction of resilient health systems needs to become a long-term commitment, and one closely tied to dependency on aid in many vulnerable areas of the globe. Pandemics carried great capacity to destroy basic health and economic structures, creating an inescapable loop for many areas. For an effective response, it is vital that epidemic prevention begin at source, nurturing local capacity to ensure a robust front-line response.

### ***Research and development of medical products***

Dr Freire listed the range of tools needed to tackle pandemics – from diagnostics and therapeutics, to vaccines and Personal Protective Equipment (PPE). The recent Ebola crisis very effectively demonstrated that the efficacy of each is tied to the others, as treatment was useless without the ability to identify cases, and frontline care was impossible without the ability to protect health workers. If care-givers could not be protected adequately, any response would be sacrificing key expertise in a self-defeating downward spiral.

Dr Freire had been considering seven key areas in her examination of this topic:

#### *1. Discovery*

The role of clinical academics is, and will remain, central to the delivery of innovative medical solutions and needs long-term commitment from public and philanthropic organisations. However, calls for investment need to be realistic and must acknowledge the challenges of developing solutions against yet undetermined threats. Even known threats such as Ebola, which has been on 'threat lists' for decades, was not adequately funded despite being identified as a priority. A possible solution could be the development of platforms – generic systems able

to undergo rapid tailoring to tackle specific problems once they are identified. Such platforms would accommodate uncertainty, and could be coupled to robust monitoring in order to rapidly mobilise research capacity against emerging threats. The current system for influenza vaccines is a strong example of this in operation. However, without rapid, accurate and low-cost Point-of-Care-Diagnostics, such systems are unlikely to succeed against threats in remote locations.

## *2. Development*

Although there are commonalities between the development pathways for vaccines and therapeutics, the two still require an individual response. Key to both are adequately powered trials to generate reliable data, the coordinated priority setting when allocating resources, and coordination between players to maximise progress. The establishment of a framework should seek to build in-country capacity which is rigorous and evidence-based to avoid waste from poor practice. Incentives need revisiting as the unique situation created by pandemics is likely to require non-traditional approaches to funding. Regardless of the mechanism, funding has to be multi-year and uncoupled from an expectation of immediate utility.

## *3. Regulatory review*

It is appreciated that regulators must protect citizens, but efforts should be made to assess where coordination might help regulators act more rapidly without compromising safety.

## *4. Clinical trials*

It is vital that an international framework is present and adhered to. The Ebola crisis revealed key areas where a lack of evidence hampered response efforts, notably around the use of PPE to protect key workers. Regulations in this area vary across nations, and any effective solution needs to engage with this diversity in order to forge consensus.

## *5. Manufacturing*

There is a pressing need to focus on key hurdles such as the move to continuous manufacturing, as well as ensuring that existing batch-based systems are able to deliver promptly. Capacity needs to be bolstered before its needed – the response to recent influenza pandemics demonstrated the challenge of rapidly up-scaling small systems to generate population-level outputs.

## *6. Distribution of staff, equipment and medicines*

Distribution represents a highly fragmented part of the chain, and any effective framework will need to assess and coordinate assistance from all players – from civil agencies, to the military, to private bodies. There is obvious value in greater demand forecasting, mimicking processes which had proven utility in many commercial settings.

## *7. Cross-cutting issues*

Dr Freire also drew attention to a number of issues which sat across many of these areas. These included setting a legal framework which could effectively respond to concerns around liability and intellectual property rights. Likewise, the entire chain required leadership which was able to coordinate, yet retain agility. Validated models are needed on which to test response protocols and evolve these based on feedback. All these efforts must then also occur in far closer communication with the public, many of whom felt vastly under-informed during the Ebola crisis. Capturing this stakeholder group would represent a vast resource for mounting an effective response.

## **Conclusion**

Professor George Griffin presented a short reflection on the proceedings. He noted the ease with which many major events, such as the SARS outbreak, fade in the collective memory once the immediate threat had receded. He urged those present to make the legacy of the Ebola outbreak go further, to help better prepare us for the next threat. He saw the Global Health Risk Framework as a way to set out enabling and coordinating systems within which this goal could be achieved.

Professor Griffin highlighted the societal and geographical changes which have reshaped our world, and thus changed the nature of the threats we face. The emergence of large urban settings as the backdrop for the recent Ebola outbreak demonstrated the need to reconsider our approach.

He reminded attendees of what we had already learned from that crisis – that mortality rates could be lowered significantly with appropriate care, and that an understanding of Ebola biology could lead to effective vaccine design – but that these lessons needed to continue if long-term progress is to be made. For the future, sustainability and a strong research base are critical.

There will be future pandemics, and they will emerge from unexpected sources. As such, the lessons gathered by the Commission should seek to provide generalisable lessons. The task ahead is vast and multi-faceted, and the Commission has set itself an ambitious and commendable timeframe in which to report. This body of work carries global implications and over the coming months the commission should carry forward the focus of the exercise, to ensure that our response to health risks is brought into the twenty-first century.