Summary

This Working Paper sets out some of the key lessons identified from the United Kingdom’s and others’ experience as part of the international response to the West African Ebola Virus Disease outbreak, which are, in our view, directly applicable to making Article VII more operational; these cover command and control as well as other topics. As was noted in a recent edition of The Lancet, ‘a resilient health system to stop naturally occurring outbreaks of infectious disease has the same attributes needed to prevent, detect and respond to the deliberate use of a biological agent.’¹ This highlights the links to Article X. We conclude that the BTWC should not look to duplicate mechanisms that are better managed by other organisations, but that their development should be seen as contributions to and consistent with commitments under Articles VII and X.

Introduction

1. In our Working Paper on Article VII presented at last year’s Meeting of Experts, we stressed the critical role that effective command and control has to play in any response to an outbreak of infectious disease irrespective of its origins; this applied for both immediate national responses and any parallel or subsequent international effort arriving days, weeks or even months after the index case. In particular, we noted the need to address fully the command, control, and coordination of multi-agency assets during an initial response and as the mitigation operation progresses.

2. Command and control – the organisation, management and tasking of the response - especially in the initial stages when first responders arrive on the scene and are trying to determine the nature and scale of the problem, is thus a critical capability in ensuring early identification of the nature of the hazards and of the measures required to save lives. In this context it is also worth recalling one of the key lessons from the OPCW ASSISTEX held in Tunisia in 2010 – this was designed to test and assess the procedures that the Technical Secretariat had in place to respond to a request for assistance under the terms of the Chemical Weapon Convention’s Article X, which is comparable to Article VII. Executing effective command and control under stressful conditions, especially in conditions where information is either lacking or is incomplete, requires that assistance teams have a special set of skills and considerable experience and capabilities. This lesson was echoed again in the response to the West African Ebola virus disease (EVD) outbreak.

3. The experience of the international community in responding to and containing the EVD outbreak in West Africa over the last year has demonstrated the need for effective rapid first responses for future outbreaks of disease that may constitute a Public Health Emergency of International Concern. This is needed to prevent transmission rates escalating, when the tasks of containing the effects become much more of a challenge and cost more lives and social and economic disruption. Command, control and coordination of a multiagency response (national, international governmental, other states, aid and charity organisations) from the outset are thus essential.

Key Lessons

4. The following are some of the most compelling lessons that we think are relevant for discussion on the implications for the BTWC:

(a) A need for rapid response teams

• It is critical to ensure we have a rapid and responsive deployment workforce - by the establishment of a rapid response team within WHO that is properly resourced, trained and equipped to deploy immediately at the first signs of an outbreak that, if left to its own devices, could quickly spiral out of control with massive loss of life, social and economic damage. That an effective response was not deployed earlier in West Africa was instrumental in causing the outbreak to develop as extensively and as fatally as it did. In the case of infectious diseases such as Ebola, it is essential to identify cases early and isolate them quickly, so that an epidemic can be controlled in a relatively short period of time. Comparable capabilities would also be required in the

2 BWC/MSP/2014/MX/WP.5.
OIE and FAO given the importance of the ‘One Health Concept’ – see (c) below.

- It is essential that the WHO has the means and mandate to move quickly to put in place resources, skills and capabilities to tackle future outbreaks and emergencies. In May 2015, the World Health Assembly (WHA) endorsed the plan for a global health emergency workforce designed to respond to outbreaks and emergencies. This is a key part of the WHO’s wider emergency response programme to enable a more timely, coordinated and effective response to any future health crisis. Setting out clear and effective command and control mechanisms across the Organization will thus be a key feature. The WHO, with the support of Member States, is establishing a US$100 million contingency fund, financed by flexible voluntary contributions, to ensure that the necessary resources are available to immediately mount an initial response.

- The Ebola response also highlights the importance of social anthropological understanding of cultural norms to ensure rapid engagement with local communities when international response teams arrive on the scene.

(b) The need for effective infectious disease surveillance and information sharing

- There is a continuing requirement for a sustained focus on surveillance to detect outbreaks in the first place, followed by capacities for social mobilisation, scaled-up contact tracing (especially on tackling cross-border transmission) and case investigation should they occur.

- There needs to be a greater focus on information sharing (currently combined with enhancing regional preparedness), focussing on strengthening mechanisms to share disease surveillance information and analysis, including data gathering for vulnerable and high-risk populations, such as migrants or communities living in disputed areas or conflict.

(c) Building national capacities for response

- Effective command, control and communications functions at district level need to be responsive to local flare ups of disease.

- Support is required for capacity development to augment prevention, preparedness and response in case of outbreaks and other biosecurity relevant events, including supporting the implementation of the International Health Regulations core capacities and the Global Health Security Agenda action package targets.4

- There is a need for more emphasis on multi-sectoral co-operation in a crisis caused by outbreaks of infectious disease – effective responses are not just down to the public health sector. The ‘One Health’ concept is especially important in this context; this concept is based on an awareness of the major opportunities that exist to protect public health through policies to prevent

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and control pathogens at the level of animal populations, at the interface between humans, animals and the environment.\(^5\)

(d) A need for investment in Research and Development

• Delegates to the WHA in May 2015 noted the importance of being able to accelerate research and development activities to tackle health threats for which solutions do not currently exist. The WHO leadership statement on the Ebola response and WHO reforms called upon world leaders to invest in research and development for the neglected diseases with outbreak potential, particularly on diagnostics, drugs and vaccines. This would require innovative financing mechanism and public-private partnerships.\(^6\)

• There is also a need to clarify the regulatory pathways for developing new tools and approaches in the context of such outbreaks.\(^7\) The impact of scientific and technological advancements on the response to the Ebola crisis and future outbreaks, including the relevance to Article VII, is considered in a separate UK Working Paper to this Meeting of Experts.

**Future United Kingdom efforts**

5. The United Kingdom has identified specific areas where it will focus its future attention on assistance measures. These include:

   (a) Developing early warning surveillance and improving epidemiology-led intelligence;

   (b) Developing a larger set of response institutions that can be deployed more quickly;

   (c) Developing resilience within public and veterinary health sectors;

   (d) Making sure that technologies relating to vaccines, testing and treatments were being afforded sufficient priority by the international community. The United Kingdom’s leading pharmaceutical companies, research centres, universities and disease experts will come together to focus on the most serious global health threats. The United Kingdom Vaccines Research and Development Network will bring together the best expertise across the country, with £20 million invested from the outset to focus on the most threatening diseases including Ebola, Lassa, Marburg and Crimean-Congo haemorrhagic fever, with additional investment from the private and research sector;

   (e) Development by Public Health England (PHE) of a training package on management of emergency response, which will be made available for other countries;

   (f) Development by PHE of a resource pack on bridging security and health and the importance of joint working with law enforcement agencies, which will be shared as part of the United Kingdom’s Global Health Security Agenda commitments;

   (g) At the national level the United Kingdom is looking to improve its capacity to support countries in responding to emergencies created by outbreaks of infectious


diseases early on. In this context the United Kingdom has made an advance commitment of up to $10 million as part of the WHO’s contingency fund, in the event of future outbreaks and emergencies.\(^8\)

(h) The United Kingdom is developing plans to establish a more robust national rapid response workforce for public health emergencies and will establish a new group of six to ten expert staff – mainly epidemiologists, infection control specialists and infection control doctors – who will be on permanent standby, ready to deploy to help countries respond to disease outbreaks. A ‘reservist force’, including hundreds of doctors, nurses and public health experts, will be ready for call-up if the outbreak is not contained at an early stage. This will require training of a wider cadre of reservist specialists in surveillance, outbreak response, epidemiology, diagnostics, infection prevention and control, relevant social sciences and clinical and applied research, and when required to be deployed as part of a larger scale response.

(i) We have committed £195 million over five years to launch the Fleming Fund to support antimicrobial resistance and infectious disease surveillance world-wide. This fund will focus on enhancing laboratory capacity and surveillance networks in developing countries, particularly where there is no such existing or planned capacity. As we have previously noted\(^9\), the first line of defence against future outbreaks of disease is to develop and sustain national, regional and international capacities for disease surveillance. The experience from West Africa helps demonstrate the clear organic connection in this context between measures taken and those required for effective implementation of Articles VII and X.

Conclusion

6. To be effective, responses have to be immediate as the West African experience has shown; and for that reason the statement made by the Seventh Review Conference\(^10\) that, should a request for assistance under Article VII be made, it be promptly considered and an appropriate response provided remains all the more valid. It is thus essential in preparing for any comparable future outbreaks that the response needs to be rapid and with a single controlling mind for coordination as a cardinal principle for effective command and control. In the United Kingdom view, the coordination is best located with the WHO (or OIE and FAO when dealing with major outbreaks of animal and plant disease).\(^11\) We should not attempt to create a parallel structure purely in the context of Article VII of the BTWC.

7. In a nutshell our collective aim must be to build capacities to prevent and detect outbreaks of infectious disease; and, should they occur, ensure that we are in position to respond rapidly to contain any such outbreak thereby preventing further adverse humanitarian, societal and economic impacts. States must build an integrated response capability at the national and international level working with the relevant international

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8. The Special Session of the WHO’s Executive Board (EBSS3) in January 2015 adopted a resolution ‘Ebola: ending the current outbreak, strengthening global preparedness and ensuring WHO’s capacity to prepare for and respond to future large-scale outbreaks and emergencies with health consequences.’ This requires the WHO Secretariat to provide options on the size, scope, sustainability, operations, source of financing for such a fund and accountability mechanisms.

9. BWC/MSP/2014/MX/WP.1 paragraph 6 page 2.

10. BWC/CONF.VII/7 paragraph 33.

11. See the questions raised in the UK Working Paper entitled Making Article VII Effective: Some Key Assumptions and Questions tabled at this meeting.
entities such as the WHO. This offers a practical way of giving effect to the aspirations in Articles VII and X.