Introduction: Actions Applicable to CBRN Prevention, Detection, and Response

From Interblocking Stovepipes to Interlocking Networks

Bengt Sundelius

The EU-funded project AniBioThreat is a pilot project aimed to contribute to the implementation of the CBRN action plan of the European Union. The ambition behind the project is to improve the EU’s capacity to counter biological animal bioterrorism threats in terms of awareness, prevention, and contingency planning. The complex backgrounds of diverse biosecurity threats require well-established cooperation patterns among organizations and professionals that seldom interact with each other. Process synergies need to be strengthened between the security sector and law enforcement officials and public and animal health agencies in order to bridge existing mental gaps across the professional corps of these organizations. For this reason, the project tries to promote a holistic framework focused on a One Health approach in combination with integrated safety and security work procedures.

People and organizations form the basis for improving the capacity to mitigate transboundary threats and risks, such as health-related concerns. Often well-meaning professionals working according to their protocols do not understand how other sectors are affected by their outlooks or even fail to recognize the significance to their work of the legitimate concerns of other professional groups. They may even use the same terminology and therefore believe that they do understand each other, when in fact they do not.

Considerable research shows that the hardest obstacle to overcome for a whole-of-government, or preferably a whole-of-society, approach to health security is the deeply rooted mental gaps that tend to separate distinct professions with different training and backgrounds. Such gaps complicate close cooperation and smooth coordination, which in turn reduces effectiveness. Gaps in understanding exist between most professional areas, such as between public health officials concerned with human safety and animal survival and law enforcement officials concerned with security, law, and order. Some key factors contributing to these mental gaps are that each corps over time has created its own terminology and way of organizing, has developed sector-specific technological solutions, and, perhaps most important, has established idiosyncratic training systems that foster sectoral approaches. Thus far, our professional developments have been better at accommodating interblocking stovepipes than interlocking networks. This holds true both for the 28 member states of the EU and for the 50 states of the United States.

Take for example the gap between safety and security professionals, both of whom are vital stakeholders in the area of concern for this volume. One complicating gap is the way that these groups work with information. Security officials are used to working with closed information systems to manage classified intelligence materials, which they see little necessity to share outside a trusted few. Safety officials on the other hand are accustomed to using open information and may not even see a need for “intelligence-based” information. With threats becoming more complex, where an event initially can be difficult to define as an apparent “normal” accident or as an antagonistic attack, robust cooperation protocols between, for example, police forces and emergency responders need to be developed well in advance. As the transboundary, highly interconnected,
and complex security environment evolves in Europe and across the Atlantic, it is necessary to urgently foster greater mutual understanding between the circles of security and safety professions to ensure the shared ability to identify in time the early signals and to be able to make sense of these seemingly unrelated indices. This objective cannot be achieved during the stressful, reactive, acute phase of a biological threat, but this common capacity must be prepared through time-critical investments in mental bridge building across all the relevant professional corps. This project offers a modest contribution in this direction.

In this section, 3 articles are included to show the importance of people, organization, and communication, as suggested above.

The article “Knowledge Communication: A Key to Successful Crisis Management” focuses on communication before an acute biosecurity crisis. It also deals with crisis communication during such a crisis. Knowledge communication is a process described as an actor network based effort to integrate risk management with crisis communication. Organizations involved in biosecurity preparedness need to plan crisis communication prior to the incident to mitigate the impact of the unfolding crisis.

The second article of this section is titled “Social Media and Its Dual Use in Biopreparedness: Communication and Visualization Tools in an Animal Bioterrorism Incident.” The authors address the role of social media and interactive challenges for emergency organizations during a bio- and agroterrorism incident. The article describes how social media monitoring tools can be applied to visualize communication patterns during disease outbreaks. Hyper reporting and the need to verify the source of information are also discussed. It concludes that visualization of social media patterns is an important future preparedness tool in the response to bioterrorism and agroterrorism.

The article “Separated by a Common Language: Awareness of Term Usage Differences Between Languages and Disciplines in Biopreparedness” highlights the awareness that the same term may be interpreted differently by various sectors and professions. It identifies the need to use a common language, rather than rely on the alignment of specialist sets of terms. The multisector and international collaboration to mitigate a bioterrorism incident might be favored by establishing technological support tools. For instance, the development of a searchable scheme that integrates several existing structures that exist within each sector and profession is an action recommended by the authors.

Together, the 3 articles offer important, research-based insights into the many people-based challenges increasingly faced by professionals in the public health and law enforcement fields. Many actors must recognize these obstacles and begin to share a strong concern for overcoming them to ensure effective cooperation well ahead of and during severe health-related crises. The smooth coordination among well-trained and proud professionals, which are embedded inside sector-focused organizations with overlapping mandates, cannot be taken for granted. Such badly needed high performance practices should be learned in advance by all professional corps through regular experiences from real and simulated incidents involving high stakes sense making, decision making, and communicating to diverse audiences.