

## National Blueprint for Biodefense, One Year Later: Taking Stock of Biosecurity Efforts and A Call to Action

Alexander Chang and Edbert B Hsu\*

Department of Emergency Medicine, Johns Hopkins University, USA

\*Corresponding author: Edbert B Hsu, M.D., M.P.H., Associate Professor, Department of Emergency Medicine, Johns Hopkins University, Director of Training, Office of Critical Event Preparedness and Response (CEPAR), USA, Tel: + 410-735-6409; E-mail: ehsu1@jhmi.edu

Received date: March 25, 2017; Accepted date: April 20, 2017; Published date: April 27, 2017

Copyright: © 2017 Chang A, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

### Abstract

In October 2015, a bipartisan study panel on biodefense, A National Blueprint for Biodefense made thirty-three recommendations to advance biopreparedness in the United States. A year later in December 2016, a report titled, The Biodefense Indicators: One Year Later, Events Outpacing Efforts to Defend the Nation (The "One Year Later Report") provides compelling evidence that much work remains to be done. Within the thirty-three recommendations in the original National Blueprint for Biodefense, forty-six specific action items were designated for execution as a short-term action within a year or less. Among these, twenty-seven were not addressed by any action during the past year. Seventeen received partial action while only two of these were deemed completed. Continuing efforts to protect our populations from biological threats is imperative and warrant immediate constructive short-term action.

**Keywords:** Biodefense; Biosecurity; Biopreparedness; Disaster medicine; Public health

### Introduction

Over a decade ago, the White House issued the following statement: "The gravest danger our Nation faces lies at the crossroads of radicalism and technology. Our enemies have openly declared that they are seeking weapons of mass destruction, and evidence indicates that they are doing so with determination. The United States will not allow these efforts to succeed" [1]. With this resolute declaration, the government made clear its intent to take all necessary steps to bolster the country's overall preparedness. In October 2015, a bipartisan study panel on biodefense, A National Blueprint for Biodefense made thirty-three recommendations to advance biopreparedness in the United States [2]. The study convoked the collaboration of the executive branch, legislative branch and sectors of the public health system to administrate, delegate, and respond to the complex problems of biosecurity.

Not only did the report outline necessary actions that need to be taken, it conveyed a clear and singular message: we are not prepared. The past year alone bore witness to the Zika outbreak and the resolution of the Ebola crisis. In December 2016, a follow-up report titled The Biodefense Indicators: One Year Later, Events Outpacing Efforts to Defend the Nation (The "One Year Later Report") provides compelling evidence that much work remains to be done. In light of the Ebola crisis, pre-recognized shortcomings on many levels were confirmed again in the above One Year Later Report [3].

Turning a retrospective lens on the events leading up to the One Year Later Report reveals that the perils of our world are steadily increasing in complexity due to evolving threats and the continuing advancement of technologies. The rapid acceleration of bioengineering improvements have availed new technologies to harmful actors that mark this as an increasing danger arguably even in comparison to other weapons of mass destruction. While A National Blueprint for

Biodefense outlines a comprehensive strategy, the One Year Later Report insists that more action should be taken and with more haste.

Of deep concern is that the gravity of its findings and magnitude of work to be done are not only lost upon the general population, but seemingly to some degree also to the government. The One Year Later Report not only critiques progress or lack thereof, but demonstrates that the scope of the nation's biodefense is of incredible complexity. Within the thirty-three recommendations in the original National Blueprint for Biodefense, forty-six specific action items were designated for execution as a short-term action (one year or less). Among these, twenty-seven were not addressed by any action during the past year. Seventeen received partial action. Only two of these were deemed completed: funding the National Animal Health Laboratory Network at a level that allows it to achieve success and appropriating public health emergency preparedness funding to authorized levels or the President's request, whichever is higher [3].

The inertial response and reception can perhaps be attributed to complacency that wide-scale bioterrorism is without relative precedent. However, as Bill Gates remarked at a recent 2017 Munich Security Conference, "We ignore the link between health security and international security at our own peril" [4].

Although there is a high degree of uncertainty and unpredictability associated with biological threats, the government must not be dissuaded from taking decisive action, particularly by working on items designated for short-term action in the National Blueprint for Biodefense. However, carrying out even these items face challenges as highlighted by the One Year Report. For instance, the first recommendation in the Blueprint squarely tasked the White House to "institutionalize biodefense in the Office of the Vice President," calling into question the existing governance [2]. Although the panel's concerns of fragmentation in biopreparedness may be appropriately founded, the One Year Report's focus on inaction- which in some instances occurred by default because an alternative organizational solution was chosen- does not do the matter justice as responsibilities were consolidated by the White House under the Senior Director for

Global Health Security and Biodefense, a new National Security staff position [3]. While the urgency to execute the steps outlined in the Blueprint is evident, future efforts must closely consider specific governance barriers to implementation.

Fundamentally, the National Blueprint for Biodefense synthesizes biopreparedness strategy, tactics, and logistics. Given its top-down approach and considering that the early structural recommendations were not implemented, it is no surprise that by the end, the Blueprint offers little more than a laundry list of unattended inadequacies. The Blueprint could benefit greatly from visual representation of the organizational model it envisions for carrying out these recommended action items. While the Blueprint's foundation is deeply rooted in the executive branch, particularly the Office of the Vice President, considerable collaboration between various branches of government is required. Future efforts should suggest a flexible framework such that other biopreparedness efforts are not derailed should earlier recommendations not be acted upon.

Format-wise, the Blueprint enumerates tasks and goals with brief justifications. This checklist approach has advantages in readily identifying progress toward set goals but may overlook nuances. Whether simultaneously tackling thirty-three recommendations is overly ambitious or can be further prioritized for more efficient execution certainly remains an issue for future discussion. While the Blueprint serves as an excellent reference, the One Year Report needs to concede that some recommendations in the Blueprint face

considerable implementation challenges which may take far more effort and time than suggested. As an example, Recommendation 3A to "collate the whole of biodefense policy." is listed as a short-term action (i.e., one year or less), but such a timeline needs to allow reasonable latitude for progress. Perhaps continuation of the panel's work can drill further down to more readily assimilated elements.

Ultimately, the National Blueprint for Biodefense serves as guide for the biodefense of our populations that is a critical step to understand our vulnerabilities while the One Year Later Report is a portentous call to action which our leaders and healthcare professionals should be cognizant of. Protecting our populations from biological threats is not only indispensable, but morally non-negotiable.

## References

1. Croddy E, Wirtz JJ (2005) Weapons of Mass Destruction: An Encyclopedia of Worldwide Policy, Technology, and History (ABC-CLIO Interactive, 2005).
2. Blue Ribbon Study Panel on Biodefense (2015) A National Blueprint for Biodefense: Leadership and Major Reform Needed to Optimize Efforts – Bipartisan Report of the Blue Ribbon Study Panel on Biodefense. Hudson Institute: Washington DC.
3. Blue Ribbon Study Panel on Biodefense (2016) Biodefense Indicators: One Year Later, Events Outpacing Efforts to Defend the Nation.
4. (2017) Bill Gates, "A new kind of terrorism could wipe out 30 million people in less than a year - and we are not prepared,". Business Insider.