

Bradford Regime Review Paper No.2

Bioterrorism and the Securitization of Public Health in the United States of America - Implications for Public Health and Biological Weapons Arms Control

University of Bradford

By

Alexander Kelle

Queen's University Belfast

1. Introduction

The possibility that terrorist organisations will not only seek to acquire and deploy biological weapons (BW), but will do so successfully, has increasingly preoccupied politicians and military planners alike. Especially in the United States of America, beginning in the mid-1990s, has been a clear trend to upgrade bioterrorism in relation to other threats to US national security. If one conceives national defenses against BW and multilateral BW arms control measures as two sides of a coin in the currency with which to counter the BW threat, there clearly has been a shift in US thinking and policy, calling into question the old equilibrium between defenses and arms control measures. Triggered by the Aum Shinrikyo sarin gas attack in the Tokyo subway system in March 1995 and the Oklahoma City bombing in April 1995, “the potential terrorist use of biological agents in the United States ... has swept the national security sector of official Washington.”¹ However, it will be argued in this briefing paper, that the “sweeping effects” of the emergence of bioterrorism as the number one threat to US security – a trend that has been boosted by the events of September 11 and the anthrax letters sent through the US postal system in the fall of 2001 – have not been limited to the national security sector, but have led to the securitization of the public health sector and the biomedical research infrastructure in the United States as well.

¹ Milton Leitenberg, The Experience of the Japanese Aum Shinrikyo Group and Biological Agents, in Brad Roberts (ed.), *Hype or Reality? The “New Terrorism” and Mass Casualty Attacks*, Alexandria, VA: CBACI, pp.159-170, quote on p.159.

In analogy to the first briefing paper in this series² the concept of “securitization” will be applied to trace the shifts in discourse and policy accompanying the rise of bioterrorism to the top position of threats to US national security. As outlined in the previous briefing paper, the

“term “securitization” was introduced into the security studies discourse during the 1990s by a group of scholars including Ole Waever and Barry Buzan, ... According to Waever’s understanding two operations are crucial to the field of security studies: speech acts (uttering security) and modalities (threat-defense sequences).³ When regarded as a speech act, “security is not of interest as a sign that refers to something more real; the utterance itself is the act. By saying it, something is done (as in betting, giving a promise, naming a ship).”⁴ If a securitizing speech act is performed successfully – and this is by no means always the case – the threat-defense sequence, which has been characterizing traditional thinking about security, has been successfully put into action. To put it differently, new issues will only be securitized successfully if they can be “staged as existential threats to a referent object by a securitizing actor, who thereby generates endorsement of emergency measures beyond rules that would otherwise bind.”⁵

The reference to “emergency measures” clearly indicates that securitization does not stop with the speech act. Rather, for securitization to be successful, the speech act has to be followed up by policies to address the newly identified securitized issue area. In line with this reasoning the first briefing paper in this series focused on the securitization of international public health by analysing attempts at securitization in the most relevant institutional settings in this context: the World Health Organisation (WHO), the community of states parties to the Biological Weapons Convention (BWC), and the United Nations, more precisely the UN Secretary General’s *High Level Panel on Threats, Challenges and Change*. One of the key findings of this first briefing paper was that international public health has not been

² Alexander Kelle, *Securitization of International Public Health – Implications for Global Health Governance and the Biological Weapons Prohibition Regime*, Bradford Regime Review Papers No.1, May 2005, available at http://www.brad.ac.uk/acad/sbtwc/regrev/Kelle_secritization.pdf

³ Ole Waever, *Securitization and Desecuritization*, in Ronnie D. Lippschutz (ed.), *On Security*, New York: Columbia Univ. Press, 1995, pp.46-86, quote on p.51.

⁴ Ibid, p.55.

⁵ Kelle, *Securitization of International Public Health*, p.3f.

successfully securitized.⁶ In terms of the speech acts in the above identified institutional settings, both the ones observed in the WHO and the BWC context emphasize the contribution of international public health to countering the threats of BW within the limits of the mandate of the WHO. Only the UN Secretary General's High-Level Panel's recommendations go beyond this mandate and in this sense advocate "measures beyond rules that would otherwise bind".

"This assessment is supported by a look at the resource allocation for deliberate epidemics, which does not form part of the regular WHO budget, but is funded by interested member states. ... as the analysis of WHO involvement in the BWC Ad hoc group deliberations and the 2002 report on its PDE activities have shown, WHO has no intention of taking on the role of verifying the use of BW or other aspects of states' compliance with their obligations undertaken under the BWC. What is more, at current levels of funding and manpower allocation WHO's PDE team would not have the capacity to perform such a function in the first place. In sum then, the WHO is not an actor who could or would want to play a major role in the context of the BW prohibition regime and will therefore not influence regime development in a major way."⁷

Rather, the briefing paper pointed out that the

"heightened profile of infectious disease surveillance [in the intersessional process] could positively affect the implementation of three core regime norms: the cooperation norm, the assistance norm, and the internalisation norm. However, such a positive effect will depend on the overall approach taken by BWC states parties to utilize the outcomes of the intersessional process."⁸

One of the key states in this equation of determining the prospects of the BW prohibition regime is the USA, where biodefense activities have dramatically increased in the context of the new US homeland security policy. At the same time the US government was instrumental in bringing to an unsuccessful end the negotiations to strengthen the BWC with a legally-binding Compliance Protocol. The move from cooperative solutions to the BW threat to a

⁶ Ibid., p.36.

⁷ Ibid., pp.36-8.

⁸ Ibid., pp.38.

more unilateral, biodefense-oriented approach has seen the concomitant securitization of parts of the US public health infrastructure in the fight against bioterrorism.

It will be argued in this paper that an argumentative turn, indicative of the securitization of an issue area, occurred with the emergence of bioterrorism as the most dangerous threat to (US) national security in the second half of the 1990s: initially, first responders, emergency room personnel and physicians were regarded as the first line of defense against a bioterrorist attack, before larger parts of the public health system were included in this process. Correspondingly, it was argued that their funding, training, and equipment, had to be adapted to meet the new security threat. The implications of the shifting budgeting priorities on the fulfilment of the public health system's core missions remain yet to be determined. Yet, securitizing the US public health infrastructure and pulling it into the security realm did not stop at this point. Rather, these post-exposure defensive measures were supplemented by a search for better diagnostics, and anti-viral and anti-microbial drugs that could be employed before a bioterrorist attack occurred. As a result, the securitization of the public health infrastructure started to expand into the area of biomedical research.

The next part of the paper will briefly discuss the US policies in the issue areas of BW arms control policy making, biodefense activities, and the public health system, the latter of which existed up until the second half of the 1990s in relative isolation from the former two. Following the Aum Shinrikyo attack on the Tokyo subway system the threat perception of a possible bioterrorist attack increased markedly and led to first calls for extended countermeasures, whose emergence will be traced in the subsequent part of the paper. Here the focus will be on both governmental and non-governmental actors "speaking security" with a view to the public health system, in other words, proposing the merging of parts of public health with the national security sector. The fourth part will describe the securitization of public health in the US, which can be subdivided into two phases separated by September 11 and the

anthrax letters sent in the fall of 2001. While during the first phase emphasis was initially on first responders capabilities and the expansion of supplies of medicines available for responding to a biological mass casualty event, the second phase witnessed both the massive expansion of civilian biodefense activities and the controls of life sciences research. Both the labeling of legislation and new organisational units and the increases in funding will be used as indicators for an increasing securitization of public health. The final section will address the implications of the securitization of public health for both the US public health system and the US policy towards the BW prohibition regime. With respect to public health, the argument put forward by some proponents of an increased public health role in biodefense, according to which an increased biodefense spending will automatically double as a useful investment in public health in general, will be assessed. In terms of the impact on US arms control policy the question will be considered which new balance between arms control and biodefense measures might result from the securitization of public health in the fight against bioterrorism.

2. Overview of US BW Arms Control, Biodefense, and Public Health

2.1. US BW Arms Control Policy

When the ground was laid for the international regime to prohibit biological weapons with the 1925 Geneva ‘Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous, or Other Gases, and of Bacteriological Methods of Warfare’, the United States was actively participating in the negotiations for the Protocol and became a signatory state.

“The Geneva Protocol was transmitted to the U.S. Senate for its advice and consent on Jan. 12, 1926. It was not put to a vote because the unexpected opposition to it that had developed prompted the Chairman of the Foreign Relations Committee ... to have the Protocol referred back to his Committee. ... It was not reported out of that Committee

again and was among a number of treaties that were withdrawn by President Truman in 1947.”⁹

The Geneva Protocol resurfaced on the political agenda of US policy makers only some 20 years later in the context of the unilateral renunciation of BW by President Richard Nixon in 1969. As Tucker has pointed out, Nixon was motivated to undertake this unilateral declaration not because of moral considerations but because of military and political ones.¹⁰ The shift in US policy had the positive impact on the international level to disentangle negotiations on BW and chemical weapons (CW) prohibition treaties simultaneously, which had been the dominant approach up to the second half of the 1960s. In 1968, the UK government deviated from this conventional wisdom and submitted a working paper to the UN Eighteen Nation Disarmament Committee in which it proposed treating BW separately from CW.¹¹ Although some initial resistance had to be overcome, the proposal, after the US unilateral renunciation, and Soviet acceptance of the idea of separating negotiations on BW and CW, led in a relatively short period of time to the conclusion of the BWC in 1972. However, as Tucker also highlights, the fact that the decision to renounce BW had already been made by the US government “reduced the incentive of U.S. negotiators to incorporate into the BWC an effective mechanism for monitoring compliance, especially given the Soviet aversion to on-site inspections.”¹² A second problem arose out of the fine print of President Nixon’s decision to renounce BW: part of the National Security Decision Memorandum which codified the renunciation stipulated that

“The United States bacteriological/biological programs will be confined for defensive purposes (immunization, safety measures, et cetera). ***This does not preclude research***

⁹ R.R. Baxter and Thomas Buergenthal, Legal Aspects of the Geneva Protocol of 1925, in *American Journal of International Law*, Vol.64 (4), 1970, pp.853-879, quote on p.855, n.11.

¹⁰ Jonathan B. Tucker, A Farewell to Germs. The U.S. Renunciation of Biological and Toxin Warfare, 1969-70, in *International Security*, Vol.27 (1), 2002, pp.107-148, especially, pp.127f.

¹¹ See SIPRI, *CB Disarmament Negotiations*, pp.254ff; on the development of this working paper see Susan Wright, ‘Geopolitical Origins’, in S. Wright (ed) *Biological Warfare and Disarmament. New Problems / New Perspectives*, Lanham: Rowman & Littlefield, 2002, pp.322-333.

¹² Tucker, A Farewell to Germs, p.108.

into those offensive aspects of bacteriological/biological agents necessary to determine what defensive measures are required.” (emphasis added)¹³

As there were no proper mechanisms of political oversight established, the determination of the scope of permissible BW defense activities was largely left to the military and intelligence communities. This approach might well have been questioned already in the mid-1970s when the retention of several grams of Shellfish toxin by the CIA – in direct contravention of Nixon’s memorandum came to light.¹⁴ More recently, this still predominant approach has raised some doubts as to whether the US was all the time in compliance with its obligations undertaken under the BWC (see the next section below). Unfortunately, the dividing line between what counts as permissible defensive activities and what crosses that line, is not further specified in the BWC itself, which leaves unrestricted states parties’ recourse to self-defense against a potential BW attack. This principle is rooted in the belief that the peaceful uses of biosciences cannot be taken for granted – be it for the lacking universality in membership or for a state party not living up to the obligations it has assumed.

This latter concern, combined with one of the central weaknesses of the BW control regime, i.e. the absence of a verification system, came to the fore soon after entry into force of the BWC in 1975. Already during the First BWC Review Conference in 1980 the US voiced its concern that an anthrax outbreak in the then Soviet city of Sverdlovsk (now Ekaterinburg) had been caused by activities in a clandestine military facility, which, it was suspected, was part of an offensive Soviet BW programme.¹⁵ It is noteworthy, though, that the US government did not formally invoke Article V of the BWC or waited “until the conference had clarified the Article Five procedure for handling suspicious events through a newly-

¹³ Quoted in Tucker, *A Farewell to Germs*, p.129.

¹⁴ Nicholas A. Sims, *The Diplomacy of Biological Disarmament. Vicissitudes of a Treaty in Force, 1975-1985*, New York: St. Martin’s Press, 1988, pp.69-71.

¹⁵ See Sims, *The Diplomacy of Biological Disarmament*, pp.155-163, and 226-252.

defined consultative mechanism and then make proper use of that mechanism.”¹⁶ Instead, the US embassy in Moscow issued a demarche to the Soviet Foreign Ministry half-way through the BWC Review Conference. Although the Soviet Union denied the allegations and provided a cover story involving tainted meat that had illegally been sold on the black market and thus caused the anthrax outbreak¹⁷, doubts lingered and during the following Second and Third BWC Review Conferences in 1986 and 1991, respectively, a number of confidence building measures (CBM) were agreed upon.

According to Chevrier and Hunger the negotiating history of the CBM clearly displays two goals which the BWC states parties try to achieve with the information exchanges agreed upon: “to reduce the uncertainty surrounding the extent and purposes of permitted biological activities and to build confidence in the arms control process”¹⁸. In an earlier study, Hunger had already shown that the US was one of the few regular participants in the CBM information exchanges.¹⁹

Upon the insistence of a few BWC states parties an additional process was initiated during the 1991 BWC review conference which in a first step sought to assess the technical feasibility of potential verification measures for the BWC. The report of this exercise was then considered in 1994 by a Special Conference of the BWC states parties and led to negotiations on a legally binding compliance protocol, which lasted from 1995 to 2001. Yet, even the formulation of the negotiating mandate proved to be difficult. This was in no small part due to the US position, which expressed scepticism as to the AHG’s ability to negotiate ‘verification’-measures, because the US government rejected the idea that the BWC is

¹⁶ Ibid., p.159.

¹⁷ Jeanne Guillemin, *Anthrax. The Investigation of a Deadly Outbreak*, Berkeley: Univ. of California Press, 1999, pp.8f.

¹⁸ Marie I. Chevrier/Iris Hunger: Confidence-Building Measures for the BTWC: Performance and Potential, in *The Nonproliferation Review*, Vol.7, No.3, 2000, pp.24-42, quote on p.30.

¹⁹ Iris Hunger, Article V: Confidence Building Measures, in G. Pearson/M. Dando (eds.) *Strengthening the Biological Weapons Convention. Key Points for the Fourth Review Conference*, Geneva: QUNO, 1996, pp.77-92

verifiable on principled grounds. That this view did not change over the course of the negotiations was confirmed by one of the main negotiators in the U.S. delegation to the AHG, Ambassador Donald Mahley, in testimony before the U.S. Senate in September 2000. As Mahley explained:

“First of all, this is not an issue of verification. As you know, the United States has substantive requirements for attributing effective verification to a treaty. ... The United States has never, therefore, judged that the Protocol would produce what is to us an effectively verifiable BWC”²⁰

What exactly the US government understands by this term was spelt out during the 1994 Special Conference. Accordingly, ‘effective verification’

“refers to a set of measures designed to verify compliance with the provisions of a treaty with sufficient confidence to detect any militarily significant violation in time for other states parties to take appropriate countermeasures.”²¹

As another BWC state party, Russia, sought her special interests to be reflected in the mandate, the AHG was also tasked to consider ‘definitions and objective criteria’ in its mandate. Furthermore, some states of the Non-Aligned Movement (NAM) did not seem to perceive BW as a threat to their national security and therefore had to be brought on board by including in the mandate the issue of strengthening international cooperation in the peaceful uses of the biosciences.²² In addition, CBM – both existing and new ones – should be

²⁰ ‘Testimony by Ambassador Donald Mahley, State Department Special Negotiator for Chemical and Biological Arms Control before the House Committee on Government Reform, Subcommittee on National Security, Veterans’ Affairs and International Relations, September 13’, reprinted partially in *Disarmament Diplomacy*, Issue No.50, September 2000, pp.37-40, quote on p.39.

²¹ These requirements for effective verification were spelt out for example by Ambassador Mahley during the 1994 Special Conference of the States Parties to the BWC. See *Statement of U.S. Representative Donald A. Mahley to the Committee of the Whole, September 22, 1994*, document BWC/SPCONF/WP.16, available at www.opbw.org.

²² On this point see Thomas Bernauer, ‘Verification of Compliance with the Biological Weapons Convention: Developing Countries Between Passive Participation and Obstruction’, in Oliver Thränert (ed), *The Verification of the Biological Weapons Convention: Problems and Perspectives*, Report No.50, Bonn: Friedrich Ebert Foundation, 1992, pp.55-67.

considered by the AHG.²³ All these pulls in different directions have led one former member of the US delegation to the AHG to conclude that the negotiating process for the Compliance Protocol from the outset was burdened with a “mandate for failure”.²⁴

Although the AHG started its deliberations in January 1995 it took the US government three years to formulate its own negotiating position. This “late arrival” of the US on the diplomatic stage in Geneva was the result of “a deadlock among U.S. government agencies over a negotiating position” in which the “departments of Defense, Energy and Commerce advocated a less intrusive inspection regime that would exclude random visits to declared facilities” was opposed by the National Security Council which “favoured a more intrusive regime, including some type of nonchallenge visits”.²⁵ As Tucker reports, it took a high-level meeting involving the US Secretaries of Defense, State, and Commerce to break the deadlock. But even after the inter-agency compromise formula had been worked out, differences in approach continued to persist. In addition, the timing of the US introducing its positions in Geneva was far from optimal: the first phase of negotiations, in which potential elements of a compliance protocol were identified, had already given way – from mid-1997 onwards – to negotiations based on a rolling text.²⁶ One of the elements identified in this first phase was exactly the randomly selected non-challenge visits which the US continued to reject.²⁷ The controversial issue of randomly selected transparency visits, among others, could not be

²³ The text of the mandate is contained in: Special Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Geneva, 19–30 Sep. 1994, *Final Report*, BWC/SPCONF/1.

²⁴ Kenneth D. Ward, The BWC Protocol: Mandate for Failure, in *The Nonproliferation Review*, Vol.11, No.2, 2004, pp.183-199.

²⁵ Jonathan B. Tucker, Strengthening the BWC: Moving Towards a Compliance Protocol, in *Arms Control Today*, January/February 1998, pp.20-27, available at http://www.armscontrol.org/act/1998_01_02/tucker.asp

²⁶ See the account of the AHG chairman: Tibor Toth, Time to Wrap Up, in *The Chemical and Biological Weapons Conventions Bulletin*, Issue No.46, 1999, pp.1-3.

²⁷ For the evolution of the US positions in the AHG see Oliver Thränert, The Compliance Protocol and the Three Depository Powers, in S. Wright (ed.) *Biological Warfare and Disarmament. New Problems/New Perspectives*, Lanham: Rowman & Littlefield, 2002, pp.343-368, especially pp.344-352.

resolved until the end of the negotiations in 2001 and were also featured in the compromise text which the chairman of the AHG presented to delegations in spring of 2001.²⁸

The July 2001 session of the AHG was scheduled to have a debate of the compromise text submitted by the AHG chairman. While not all delegations were supportive of every aspect of the compromise solutions advocated by Ambassador Toth,²⁹ the US representative, Ambassador Donald Mahley, brought the negotiating process to a complete halt, when he concluded in his remarks:

“that the Chairman’s text was not an adequate basis for completing the Protocol, that it could not be made an adequate base for further negotiation and, furthermore, that the whole conceptual framework on which the negotiations had been conducted, would have to be changed.”³⁰

The U.S. statement, which effectively dealt the death-blow to the AHG negotiations, marked the culmination of a difficult history of successive U.S. administrations with efforts to strengthen the BWC. As outlined above, this history had been characterized by difficulties to formulate a coherent government policy on the BWC protocol in the first place, continuous intra-agency quarrels over the course U.S. policy should take, and, resulting from the preponderance of the Departments of Defense, Energy and Commerce in the inter-agency process, numerous U.S. demands in the AHG process, which *de facto* lead to a weakening of several provisions of the draft protocol. In an almost ironic twist of argumentation one of the basic criticisms levelled against the Protocol in 2001 was that it was too weak and thus would not provide for effective verification. In addition, the U.S. government argued, the Protocol “would threaten national security and commercial proprietary information; and it would

²⁸ Jenni Rissanen, Chair Releases his ‘Composite Text’ for Verification Protocol, in *Disarmament Diplomacy*, Issue No. 55, London: Acronym Institute, March 2001. See also the assessment given by Graham S. Pearson/Malcolm R. Dando/Nicholas A Sims, *The Composite Protocol Text: An Effective Strengthening of the Biological and Toxin Weapons Convention*, Evaluation Paper No.21, Bradford: University of Bradford, July 2001, available at www.brad.ac.uk/acad/sbtwc/

²⁹ See Ward, *The BWC Protocol*, pp.195-197.

³⁰ Malcolm R. Dando, *Preventing Biological Warfare – The Failure of American Leadership*, Basingstoke: Palgrave, 2002, p.175.

threaten the dual-use export control regime of the Australia Group”.³¹ All of these points have been subjected to a critical analysis.³²

In order to deflect some of the criticisms the US also announced in July 2001 that she would come forward with alternative measures to strengthen the BWC. On 1 November 2001 President George W. Bush announced that

“his administration is proposing that all parties to the BWC enact strict national criminal legislation against prohibited biological weapons activities, establish an effective United Nations procedure for investigating suspicious outbreaks, establish procedures for addressing BWC compliance concerns, commit to improving international disease control, establish sound national oversight mechanisms, devise a solid framework for bioscientists, and promote responsible conduct in the use of pathogenic organisms.”³³

After the 5th BWC Review Conference, whose first part had convened in November 2001 was almost wrecked on the very last day of the Conference by a US proposal to terminate the AHG for good,³⁴ the US suggestions contained in Bush’s November 2001 remarks formed the basis for a compromise solution agreed upon by the reconvened Review Conference in November 2002. As part of this compromise, states parties decided by consensus five issue areas, two of which are of particular relevance for the securitization of public health:

- “(a) To hold three annual meetings of the States Parties of one week duration each year commencing in 2003 until the Sixth Review Conference, to be held not later than the end of 2006, to discuss, and promote common understanding and effective action on: ...
- iii. enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease;

³¹ Barbara Hatch Rosenberg, *Allergic Reaction: Washington's Response to the BWC Protocol*, Arms Control Today, July/August 2001, pp.3-8, available at http://www.armscontrol.org/act/2001_07-08/rosenbergjul_aug01.asp

³² See Graham S. Pearson/ Malcolm R. Dando/Nicholas A. Sims: *The US Rejection of the Composite Protocol: A Huge Mistake Based on Illogical Assessments*, Evaluation Paper No.22, Bradford, August 2001, at <http://www.brad.ac.uk/acad/sbtwc/evaluation/evalu22.pdf>.

³³ 'Bush Proposes Steps to Strengthen Biological Weapons Convention', Washington File, November 1, 2001, available at <http://usinfo.state.gov/cgi-bin/washfile/display.pl?p=/products/washfile/topic/intrel&f=01110103.ppo&t=/products/washfile/newsitem.shtml>, last accessed 16 May 2002.

³⁴ See Jenni Rissanen, 'Left in Limbo: Review Conference Suspended On Edge of Collapse', in *Disarmament Diplomacy*, No.62, January-February 2002, p.18-32.

- iv. strengthening and broadening national and international institutional efforts and existing mechanisms for the surveillance, detection, diagnosis and combating of infectious diseases affecting humans, animals, and plants;”³⁵

When these two these topics were addressed by the intersessional process of BWC states parties in 2004, the US government made 17 presentations during the experts’ meeting which has preceded the meeting of states parties.³⁶ Topics of the US presentations ranged from cost effective animal disease surveillance to the international dimensions of countering the threat posed by bioterrorism in the 21st century. However, as the US pointed out in its statement during the 2004 states parties’ meeting, one should resist the temptation “of trying to fit those assessments inappropriately into the formal legal framework of the Convention itself.”³⁷ In other words the measures identified in relation to the two topics under discussion should be utilized to

“focus national activity or even encourage activity by other international bodies that do have a mandate and relevant expertise to address particular situations. Each of us should enhance, for example, support of the World Health Organization’s disease surveillance and response capability.”³⁸

It is noteworthy that an expansion of the WHO’s mandate – as suggested in the UN Secretary’s High-Level Panel Report³⁹ – to expand WHO’s competences is not envisaged by the US government.

2.2. US Biodefense Activities

When US President Richard Nixon made the unilateral US renunciation of BW, maintaining a biodefense programme has always been considered part and parcel of the new US policy.

³⁵ Final Document of the Fifth BWC Review Conference, document BWC/CONF.V/17, p.3, available at <http://disarmament2.un.org/wmd/bwc/pdf/bwccnfv17.PDF>

³⁶ See *Presentations Submitted by the United States*, document BWC/MSP/2004/MX/MISC.3, available at http://www.opbw.org/new_process/mx2004/bwc_msp.2004_mx_misc.3_E.pdf

³⁷ See the US statement too the 2004 meeting of BWC states parties, which is available online at http://www.opbw.org/new_process/msp2004/statements/united_states_E.pdf

³⁸ Ibid.

³⁹ See Kelle, *Securitization of International Public Health*, pp.31f.

Consequently, when the 1972 BWC was concluded and then ratified by signatory states – including the United States – the point that the BWC would not undermine states’ ability to engage in biodefense activities was emphasised.

As the previous briefing paper in this series pointed out:

“A biodefense programme in general terms is composed of physical barriers for individual or group protection, medical treatments – which again are subdivided into pre-exposure and post-exposure responses – and defences in a wider sense including a variety of military options from pre-emptive military strikes to general deterrence of a BW attack.⁴⁰ ...

Since practically none of the known biological warfare agents acts through the skin (in contrast to many chemical warfare agents), full-body physical protection measures are not required. Rather, ... , much emphasis has traditionally been placed on the development of medical countermeasures to BW.

Pre-exposure measures that can be taken in anticipation of a BW attack are the administration of vaccines and the provision of prophylactic antibiotics. However, vaccines are available for only a small part of conceivable biological warfare agents, such as anthrax, plague, Q-fever, and tularemia.⁴¹ ...

... However, as a recent review of US biodefense preparedness concluded:

“in order for medical treatment to be an effective component of an integrated BW defense, medical personnel in the field will require adequate facilities and supplies, and support staff will need the logistical capability to evacuate large numbers of casualties. At present, neither of these conditions can be met.”⁴²

Apart from raising questions about the effectiveness of the medical components of an expanded US biodefense programme, such programmes have provoked several more criticisms.⁴³ First of all biodefense efforts are very likely to lag constantly behind offensive efforts, because of the multitude of potential biological warfare agents and the possibility that existing pathogens might be genetically engineered or new ones created from scratch. Secondly, biodefense activities can almost inevitably be misused as a cover for offensive activities. In order to know whether an existing vaccine would be effective

⁴⁰ See Stanley L. Wiener, Biological Warfare Defense, in Raymond Zilinskas (ed.), *Biological Warfare. Modern Offense and Defense*, Boulder: Lynne Rienner, 2000, pp.119-142.

⁴¹ See David R. Franz et.al., Clinical Recognition and Management of Patients Exposed to Biological Warfare Agents, in *Journal of the American Medical Association*, Vol.278, No.5, 1997, pp.399-411.

⁴² Wiener, Biological Warfare Defense, p.126.

⁴³ The following compilation of criticisms is taken from Victor W. Sidel, Defenses Against Biological Weapons, in Susan Wright (ed.), *Biological Warfare and Disarmament. New Problems/New Perspectives*, Lanham: Rowman & Littlefield, 2002, pp.77-101.

against a genetically modified organism, such an organism would have to be produced in the first place. Thirdly, biodefense programmes have been criticised as being well suited to create a protective cover for a state with an offensive BW programme who wants to produce vaccines for its own troops or populations. A further criticism maintains that the increased biodefense efforts are based on an exaggerated presentation of the threat. After all, BW have never been used in inter-state warfare and even the terrorist use of BW is practically non-existent. With a view to the interrelation of biodefense and public health, critics have argued that Biodefense programmes divert resources from essential public health services, that the spill-over benefits of anti-bioterrorism funding into public health may be exaggerated, and that the risks of associating public health programmes with biodefense activities managed by military, law enforcement or intelligence agencies have not been thoroughly analysed.”⁴⁴

As traced by some analysts, the expansion of the US biodefense programme during the 1980s raised many of the above mentioned issues. Piller and Yamamoto for example question the biodefense utility of a number of research projects funded by the Department of Defense (DOD) between 1980 and 1986, which – contrary to their stated purpose – point at potential offensive applications. The four major defensive stated goals they identify in their analysis of more than 300 DOD-funded projects are development of vaccines, diagnostics including sensors, antibodies for therapeutic purposes, and toxin and antigen isolation/characterization. These research projects, Piller and Yamamoto caution, could also be used to camouflage offensive BW program efforts to develop novel BW agents, defeat existing vaccines, improve biological vector delivery, or inhibit diagnosis.⁴⁵ Similarly, Wright and Ketcham’s analysis of five instances of ambiguous biodefense research projects – among them the aerosolisation of *inter alia* anthrax to study its lethality – concludes that none of them shows a medium or high probability of effective end use in biological defense, while one of the projects investigated – into virulence factors – has an at least medium probability to be public health use. Three of the five cases looked into by Wright and Ketcham show a medium to high probability of

⁴⁴ Kelle, *Securitization of International Public Health*, pp.15-18.

⁴⁵ Charles Piller and Keith Yamamoto, The US Biological Defense Research Program in the 1980s: A Critique, in Susan Wright (ed.), *Preventing a Biological Arms Race*, Cambridge: The MIT Press, 1990, pp. 133-68

effective end use in an offensive military BW program.⁴⁶ This clearly serves to underline the dual-use character of many biodefense activities; hence the need for transparency of such programs, so that ambiguities either do not arise in the first place, or, if they do, can be resolved.

Even more problematic have been secret biodefense experiments conducted by US government agencies in the second half of the 1990s. Three of these projects, called “Clear Vision”, “Bacchus”, and “Jefferson”, were first revealed in a newspaper report on 4 September 2001, exactly one week before the terrorist attacks on the World Trade Center and the Pentagon.⁴⁷ Project Clear Vision was operated by the Central Intelligence Agency and sought to recreate other states’ BW, most notably a bomblett developed in the Former Soviet Union.⁴⁸ The other two projects were run by Department of Defense subsidiaries: Project Bacchus, which was operated by the Defense Threat Reduction Agency aimed at building a BW production facility with commercially available materials.⁴⁹ The Defense Intelligence Agency (DIA)-run Project Jefferson sought to recreate a genetically modified version of anthrax, whose existence was reported by scientists involved in the offensive BW programme of the Former Soviet Union⁵⁰. Although the US government regards all these experiments as being permissible for defensive purposes under the BWC, a number of former US government officials and non-governmental experts have pointed out that at least “Clear Vision”, i.e. the production of a biological weapon was crossing the line of permissible activities under the BWC.

⁴⁶ See Susan Wright and Stuart Ketchum, The Problem of Interpreting the U.S. Biological Defense Research Program, in Wright (ed.), *Preventing a Biological Arms Race*, pp.169-96, especially pp.180-185.

⁴⁷ Judith Miller, Stephen Engelberg and William J. Broad, U.S. Germ Warfare Research Pushes Treaty Limits, *New York Times*, 4 September 2001

⁴⁸ See Judith Miller, Stephen Engelberg and William J. Broad, *Germs. The Ultimate Weapon*, New York: Simon & Schuster, 2001, pp.290-296.

⁴⁹ See Miller/Engelberg/Broad, *Germs*, pp.296-299.

⁵⁰ See Miller/Engelberg/Broad, *Germs*, pp.308-310.

In addition, the US Army “had an ongoing program to produce dried, weaponized anthrax spores for defensive testing”⁵¹, which was accidentally revealed in the aftermath of the anthrax letter attacks in the fall of 2001. Both the start of these activities and the exact amount of spores produced are not publicly known. What is more, it appears that the three programs mentioned above and the production of weapons-grade anthrax were conducted without any Congressional oversight or the White House being aware of any of these activities.⁵²

The US defense budget increased substantially after the terrorist attacks of 2001, with some of the highest increases to be found in the area of defenses against BW.⁵³ However, it took until the spring of 2004 until the Bush administration had formulated a comprehensive policy which aims at providing “Biodefense for the 21st Century”.⁵⁴ The policy is based on four “pillars”:

- **“Threat Awareness**, which includes biological weapons-related intelligence, vulnerability assessments, and anticipation of future threats. New initiatives will improve our ability to collect, analyze, and disseminate intelligence on biological weapons and their potential users.
- **Prevention and Protection**, which includes interdiction and critical infrastructure protection. New initiatives will improve our ability to detect, interdict, and seize weapons technologies and materials to disrupt the proliferation trade, and to pursue proliferators through strengthened law enforcement cooperation, including through such mechanisms as Interpol.
- **Surveillance and Detection**, which includes attack warning and attribution. New initiatives will further strengthen the biosurveillance capabilities being put in place in fiscal year 2005.

⁵¹ Mark Wheelis and Malcolm Dando, Back to Bioweapons?, in *Bulletin of the Atomic Scientists*, January/February 2003, pp.41-46.

⁵² Tucker, A Farewell to Germs, pp.146f.

⁵³ See section 4 below for an overview of the budgetary increases in relation to civilian biodefense.

⁵⁴ See The White House, Office of the Press Secretary, “Fact Sheet: President Bush Signs Biodefense for the 21st Century”, available at <http://www.whitehouse.gov/news/releases/2004/04/20040428-6.html>, Washington, DC, 28 April 2004. For the full text of the unclassified version of the presidential directive see www.dhs.gov/dhspublic/interweb/assetlibrary/HSPD10Biodefensefor21stCentury042804.pdf

- **Response and Recovery**, which includes response planning, mass casualty care, risk communication, medical countermeasures, and decontamination. New initiatives will strengthen our ability to provide mass casualty care and to decontaminate the site of an attack.”⁵⁵

Contained in the section on “Surveillance and Detection” is a brief reference to the “National Biodefense Analysis and Countermeasure Center” (NBACC), whose mission and planned activities have already drawn heavy criticism from scholars and former US government officials, among them a former deputy director of the US Army Medical Research Institute for Infectious Diseases (USAMRIID).⁵⁶ Their criticism singles out the activities of one of the four centers which make up the NBACC, the Biothreat Characterization Center, which has as one of its responsibilities conducting technical threat assessments for known or emerging biological warfare agents. Part of a presentation of the NBACC’s Deputy Director can indeed raise an eyebrow. The task sequence described on one slide – “Acquire, Grow, Modify, Store, Stabilize, Package, Disperse”⁵⁷ – could easily be mistaken for an action plan of a state or terrorist group wishing to engage in offensive BW activities. In light of the negative precedent such activities might set, Leitenberg/Leonard/Spertzel are right to point out that

“[t]he rapidity of elaboration of American biodefense programs, their ambition and administrative aggressiveness, and the degree to which they push against the prohibitions of the Biological Weapons Convention ... are startling.”⁵⁸

2.3. *Public Health in the US*

Historically two factors have largely determined the shape of the evolving public health system in the United States: “first, the growth of scientific knowledge about sources and means of controlling disease; second, the growth of public acceptance of disease control as

⁵⁵ “Fact Sheet: President Bush Signs Biodefense for the 21st Century”.

⁵⁶ See Milton Leitenberg, James Leonard, Richard Spertzel, Biodefense Crossing the Line, Guest Commentary, in *Politics and the Life Sciences*, Vol.22 (2), 2004, pp.2f.

⁵⁷ G. Korch, Leading Edge of Biodefense. The National Biodefense Analysis and Countermeasures Center”, presentation slides available at <http://www.cbwtransparency.org/archive/nbacc.pdf>, slide 16.

⁵⁸ Leitenberg/Leonard/Spertzel, Biodefense crossing the line, p.2.

both a possibility and a public responsibility.”⁵⁹ Increasing scientific knowledge about contagion and disease control led to a growing array of public health tasks, whose roots can be traced back to the early 18th century, when several American port cities enacted laws to isolate the sick and put incoming ships under quarantine.

The 19th century saw the emergence of sanitation as a new public health tool. Prompted by industrialization and the concomitant urbanisation the spread of contagious diseases like diphtheria or smallpox, “diseases came to be considered an indicator of a societal problem as well as a personal problem.”⁶⁰ The institutions created to address these problems were located at the local or state level. Federal public health measures were restricted to maintaining the Marine Hospital Service, which provided health care for merchant seamen. Attempts in the 1880s to transform this service into a national board of health failed due to the resistance of some states. At the end of the 19th century a major scientific breakthrough, bacteriology, or the germ theory of disease, changed the face of public health. Public health agencies, which up to this point had mostly used sanitation measures to ensure public health, set up laboratory and epidemiological capacities. At the turn of the century public health institutions also became involved in pharmaceutical research, developing for example a diphtheria antitoxin. With these developments “public health became a scientific enterprise”.⁶¹

The changing character and increased effectiveness of the public health system resulted in a dramatic change in disease patterns over the next few decades. While in 1900 tuberculosis, pneumonia, and influenza were the leading causes of death, these had been

⁵⁹ National Academies of Sciences, *The Future of Public Health*, Washington DC: National Academies Press, 1988, p.56.

⁶⁰ National Academies, *The Future of Public Health*, p.59.

⁶¹ *Ibid.*, p.65.

replaced in 1933 by heart disease and cancer as the diseases with the highest mortality.⁶² This represents the second major epidemiological shift in the United States (after the one caused by industrialization and urbanization a century earlier).⁶³ A third such shift is currently occurring on a global scale with the emergence of novel infectious diseases and the re-emergence of drug-resistant variants of thought to be eradicated disease-causing organisms.⁶⁴

The second of these epidemiological shifts led the public health system in the US to redirect the focus of its activities

“from disease prevention to promotion of overall health. ... Public health once again became a task of promoting a healthy society. In the twentieth century, this goal was to be achieved through scientific analysis of disease, medical treatment of individuals, and education on healthy habits.”⁶⁵

Starting in the 1920s the number of federally funded public health programmes increased markedly. This federal involvement took the form of identifying a particular area of health in which increased public health activities were sought. The federal government then set guidelines for public health programmes and states could apply for federal funding, as long as their programmes met the federal guidelines. In the 1930s and 1940s the federal public health infrastructure saw the creation of the National Institutes of Health and the Centers for Disease Control and Prevention. Federal involvement in public health increased further when in the 1960s the Medicaid and Medicare programs were established as part of the 1966 Social Security Act.

Starting in the 1970s budgetary pressures on the public health system started to exert their effects on the provision of public health programs. This led to a situation at the end of

⁶² See Centers for Disease Control, *Leading Causes of Death, 1900-1998*, available at www.cdc.gov/nchs/data/statab/lead1900_98.pdf

See Elin Gursky, *Drafted to Fight Terror. U.S. Public Health on the Front Lines of Biological Defense*, Washington DC: ANSER, August 2004.

⁶⁴ See Madeleine Drexler, *Secret Agents. The Menace of Emerging Infections*, Washington DC: Joseph Henry Press, 2002.

⁶⁵ National Academies, *The Future of Public Health*, p.66.

the 1980s which a report of the National Academy of Sciences characterized as a “state of disarray”.⁶⁶ Similarly, a more recent study concluded that

“public health in the United States has become a fractured enterprise, responsible for providing the disenfranchised with health care and funded by fluctuating and ultimately unreliable state and federal revenue streams, which have alternatively compensated for one another in a downward spiral. ... Public health today is a tiny bit of everything but not enough of anything.”⁶⁷

It is against this background of a fractured and underfunded system that requests have been put forward for the public health system to take on the new mission of contributing to the country’s anti-bioterrorism efforts on a large scale.

3. The New Bioterrorism and Calls for Expanded BW Countermeasures

Beginning in the mid-1990 concern was increasing that terrorists would resort to the use of nuclear, biological, or chemical weapons (NBC weapons or WMD). The so-called wake-up call for the refocusing of threat perceptions in relation to NBC-terrorism came in March 1995, when the Japanese millenarian sect Aum Shinrikyo attacked the Tokyo subway system with the nerve agent sarin. The attack killed twelve people and injured more than 1,000.⁶⁸ This attack has to be seen in context with the first World Trade Center Bombing in 1993 as well as the Oklahoma City bombing in April 1995.

Only a few months later, during the summer of 1995, a seminar on “Responding to the Consequences of Chemical and Biological Terrorism” brought together a number of the US government’s experts on CBW terrorism to discuss the state of preparedness of the health and medical sector in responding to incidents of this type. There was widespread agreement

⁶⁶ National Academies, *The Future of Public Health*, Washington DC, 1988.

⁶⁷ Elin Gursky, *Progress and Peril. Bioterrorism Preparedness Dollars and Public Health, A Century Foundation Report*, New York: The Century Foundation, 2004,

⁶⁸ See Milton Leitenberg, The Experience of the Japanese Aum Shinrikyo Group and Biological Agents, in Brad Roberts (ed.) *Hype or Reality? The „New Terrorism“ and Mass Casualty Attacks*, Alexandria, VA (CBACI), 2000, pp.159-170; David E. Kaplan and Andrew Marshall, *The Cult at the End of the World*, London (Arrow), 1997.

among participants that the threat to the US is real, that intelligence concerning CBW programs needs to be strengthened, that there is need for better education and training programs, detection systems and technology, and improved coordination among federal, state, and local government agencies.⁶⁹

Former US Senator Sam Nunn described the convergence of two well-known threats, that of terrorism and that of the proliferation of NBC weapons, as the almost inevitable result of three factors.⁷⁰ First, client states of the former Soviet Union, which were already in the past involved in terrorist activities, did not feel restrained any longer in their terrorist activities. Second, the dissolution of the Soviet Union released a large number of scientists with WMD know-how as well as NBC-material, which could easily be accessed by terrorist groups. Third, the spread of relevant information over the internet facilitates the acquisition of NBC-weapons by terrorist groups. But not only had the hurdles for terrorist to engage in NBC terrorism decreased, their motivation to do so was regarded by many observers as being on the increase at the same time. This judgment was extrapolated from an increase in the number of victims per terrorist attack since the early 1990s, which in turn has been attributed to religious revivalism and the emergence of religiously motivated terrorist groups intent on killing large numbers of people.

Although some in the policy community in Washington DC were still trying to determine to what extent the new threat perception concerning the inevitability of a bioterrorist attack on the US was closer to “hype or reality”,⁷¹ there was a consensus emerging that the question was no longer if a bioterrorist attack would occur on the US, but only when

⁶⁹ See the concluding remarks by Michael A Jakub, Office of Coordinator for Counterterrorism, Department of State, in United States; Public Health Service.; Office of Emergency Preparedness. *Proceedings of the Seminar on Responding to the Consequences of Chemical and Biological Terrorism: July 11-14, 1995*, Bethesda, MD (Uniformed Services University of the Health Sciences), p.394.

⁷⁰ Sam Nunn, Terrorism Meets Proliferation: A Post-Cold War Convergence of Threats, in *The Monitor. Nonproliferation, Demilitarization and Arms Control*, Vol.3, No.2, 1997.

⁷¹ See for example Brad Roberts (ed.), *Terrorism with Chemical and Biological Weapons. Calibrating Risks and Responses*, Alexandria VA: CBACI, 1997; Brad Roberts (ed.), *Hype or Reality? The „New Terrorism“ and Mass Casualty Attacks*, Alexandria, VA: CBACI, 2000.

such an attack would happen. Based on this developing consensus some started to argue that not only the military but also the public health system needed to be recruited for the fight against attacks with biological weapons.

One of the most eloquent calls for the integration of the public health system into the government's efforts to fight bioterrorism can be found in a study on "Biological Terrorism, Emerging Diseases and National Security", published by the Rockefeller Brothers Fund.⁷²

The report argues that

"responsibility for national security extends throughout society, from primary care physicians and pathologists at local hospitals and clinics, to state and national health laboratories and officials, and to public health surveillance networks overseas. These responsibilities need to be matched with appropriate resources. *Public health and national security merge in the realm of emerging diseases and biological terrorism.*"⁷³

[emphasis added]

This approach to public health and bioterrorism also informed the creation and mandate of the *Center for Civilian Biodefense* at the John Hopkins Schools of Public Health and Medicine, which aimed to increase "awareness of the medical and public health threats posed by biological weapons", "[d]evelop a broader appreciation of the scope of the threat posed by the major biological agents and possible medical and public health responses to them", and "[f]oster the planning and preparation for response to possible bioterrorist attacks, and by so doing, lessen their potential effectiveness and attractiveness as instruments of terror."⁷⁴

In order to promote these goals the Center for Civilian Biofedense organized two national symposia on bioterrorism and the public health response.⁷⁵ Both of these conferences attracted several hundred participants mostly from the public health and medical,

⁷² Christopher F. Chyba, *Biological Terrorism, Emerging Diseases and National Security*, New York: Rockefeller Brothers Fund, 1998.

⁷³ Chyba, *Biological Terrorism*, p.5.

⁷⁴ Johns Hopkins Schools of Public Health & Medicine, *The Center for Civilian Biodefense Studies*, no date, p.2.

⁷⁵ The first of these took place in February 1999 and the second one in November 2000.

but also the national security sector. Both meetings also saw the participation of high-level government officials. During the 1999 symposium then Secretary of Health and Human Services (HHS), Donna Shalala, identified “four important challenges”⁷⁶ in the fight against bioterrorism. First, she reiterated the conviction that awareness needs to be raised “that an act of bioterrorism could happen”. Second, to be prepared for such an attack required “expanding ... activities in a number of key areas: surveillance, medical and public health response, building a stockpile of drugs and supplies, and research and development”. The third challenge Shalala identified was “for the public health and medical communities to take the lead in our fight against terrorism”. Lastly, she urged effective collaboration in the fight against terrorism. This collaboration should extend across all three levels of government – federal, state and local – and cut across the public health-national security divide. The last two of these challenges – and the implied solutions are noteworthy in so far as they call into question the leadership roles of the Department of Defense and the intelligence agencies in the fight against terrorism and also assert a prominent role of the federal level within the public health sector. Shalala also pointed out that the HHS funding for anti-bioterrorism measures were expected to go up by \$ 72 million for fiscal year 2000 from the \$ 158 million approved for 1999. This indicates that her claim to leadership in the government’s bioterrorism efforts has to be seen in the context of securing an increased funding for her department in future years too. The Center for Civilian Biodefense has since been renamed to “Center for Biosecurity”, relocated to the University of Pittsburgh Medical Center⁷⁷ and has since 2003 also leading in the publication of a newly founded journal, entitled “Biosecurity

⁷⁶ Donna E. Shalala: Bioterrorism: How Prepared Are We?, in *Emerging Infectious Diseases*, Vol.5, No.4, 1999, pp.492-3; the symposium proceedings have been published as a special issue of EID

⁷⁷ For an overview of current activities see <http://www.upmc-biosecurity.org/>

and Bioterrorism: Biodefense Strategy, Practice, and Science”,⁷⁸ thereby providing a focal point and outlet for the discursive interventions of this newly formed epistemic community.

4. The Securitization of Public Health in the US

US counterterrorism policy from the late 1960s to the early 1990s focused on international terrorist incidents affecting American interests abroad. Domestic terrorist events were handled by domestic law-enforcement agencies⁷⁹ During the 1990s this changed. The treatment of terrorist acts as purely criminal and their corresponding dealing with by the appropriate government authorities was abandoned. Instead, terrorism and the expected terrorist acts involving weapons of mass destruction were increasingly seen in a national security context.

4.1. Phase I: Biodefense drafts first responders and the public health system

Already during the first Clinton administration the US Congress passed the Nunn-Lugar-Domenici Act (or Defense Against Weapons of Mass Destruction Act of 1996)⁸⁰, which established a framework for the fight against threats from NBC weapon in the hands of both states and terrorist groups. The Nunn-Lugar-Domenici Act authorized a mere \$ 6.6 million to the US public health service for fiscal year 1997 (in comparison to the \$ 36 million authorized for the DoD). It foresaw the training of first responders – fire, police, and emergency medical technicians – in 120 US cities and the cooperation of the public health sector with established actors in both the national security bureaucracy (DOD, DOE) and the Federal Emergency Management Agency. Although HHS was lagging behind the Defense Department in terms of the funding assigned for these activities, the designation of the first responder teams set up to

⁷⁸ See <http://www.biosecurityjournal.com/>

⁷⁹ Laura K. Donohue, In the Name of National Security: US Counterterrorist Measures, 1960-2000, in *Terrorism and Political Violence*, Vol.13, No.3, pp.15-60, quote from p.34.

⁸⁰ The full text of Public Law 104-201, which was enacted on 23 September 1996 can be accessed at <http://www.fas.org/spp/starwars/congress/1996/pl104-201-xiv.htm>

provide medical treatment and mass decontamination already showed a degree of securitization of parts of the public health system: the teams were called Metropolitan Medical Strike Teams (MMST), and consist of 129 members each.

“The MMSTs' focus is mass medical treatment and mass decontamination ability. They also facilitate coordination between area medical facilities to assure efficient use of available resources. ... The MMSTs have a diverse makeup, consisting of physicians, nurses, paramedics, EMTs, HAZMAT technicians, and law enforcement officers.”⁸¹

The above mentioned funds for public health bioterrorism preparedness were increased by the Public Health Threats and Emergencies Act of 2000.⁸² The act authorized \$ 540 million to federal and state biodefense and public health capacity building. It establishes inter alia federal interdepartmental working groups on bioterrorism preparedness, and provides funds for the definition and assessment of state and local capacities required to respond effectively to a public health threat, including a bioterrorist attack. The capacities to be defined and assessed include preparedness planning, disease surveillance and epidemiology, and laboratory capabilities.

4.2. Phase II: Securitization of Public Health Expanding into Biomedical Research

The anthrax attacks in the United States in the fall of 2001 marked a watershed in both the perception of the threat stemming from BW in the hands of terrorists and the willingness to allocate government funds to address the problem. For example, the Public Health Security and Bioterrorism Preparedness and Response Act of 2002⁸³ provided almost \$ 1 billion for the upgrading of state and local public health infrastructure.

⁸¹ “Nunn-Lugar-Domenici Domestic Preparedness and WMD Civil Support Teams”, available at <http://cns.miiis.edu/research/cbw/120city.htm>

⁸² The full text of Public Law 106-505, which was put into effect on 13 November 2000, can be accessed via http://www4.law.cornell.edu/usc-cgi/get_external.cgi?type=pubL&target=106-505

⁸³ The full text of Public Law 107-188, which took effect on 12 June 2002 can be accessed at <http://www.fda.gov/oc/bioterrorism/PL107-188.html>

The following table gives an overview of the dramatic increase of the federal government's civilian biodefense spending from 2001 to 2005.

TABLE 1. U.S. GOVERNMENT CIVILIAN BIODEFENSE FUNDING, FY2001–FY2005 (IN \$MILLIONS)

	FY2001	FY2002	FY2003	FY2004 (estimated)	FY2005 (budget)	Total
Department of Health and Human Services	271.0	2,940.0	3,986.0	3,500.0	4,005.0	14,702.0
Department of Homeland Security ^a	—	—	412.0	1,622.0	2,938.0	4,972.0
Department of Defense ^b	123.0	509.0	107.0	207.0	195.0	1,141.0
Department of Agriculture ^c	—	—	204.0	78.0	381.0	663.0
Environmental Protection Agency ^d	20.0	187.2	132.9	118.7	91.6	550.4
National Science Foundation	0.0	9.0	31.3	32.0	32.0	104.2
Department of State	0.0	0.0	0.0	1.2	0.0	1.2
Total USG Civilian Biodefense Funding	414.0	3,645.2	4,916.2	5,484.9	7,647.6	22,107.8
Spent through FY2004	14,460.2					
Spent through FY2004 1 FY2005 Budget	22,107.8					

Source: Ari Schuler, Billions for Biodefense: Federal Agency Biodefense Funding, FY2001-FY2005, in *Biosecurity and Bioterrorism*, Vol.2, No.2, 2004, p.87.

It is obvious from the figures that the Department of Health and Human Services and the newly created Department of Homeland Security are the main beneficiaries of the huge increase in federal government spending on biodefense and bioterrorism policies. Much of the research funding available to HHS is administered by the National Institute of Allergies and Infectious Diseases (NIAID),⁸⁴ which is part of the National Institutes of Health's. A comparative analysis of grants given for research on certain pathogens shows a significant shift in resource allocation from the period 1999-2001 to the triennium 2002-2004. According to a calculation done by the Sunshine Project, NIAID competitive awards for research on priority bacterial BW agents have increased by over 2300% and on priority viral BW agents by over 1900%.⁸⁵ At the same time research funding for HIV has decreased by 20% and for hepatitis by 58%. Also noteworthy is the fact that practically none of the principal investigators in grants for BW agent research funded by NIAID since 2001 had successfully

⁸⁴ For fact sheets, NIAID's mission statement, etc. see <http://www2.niaid.nih.gov/biodefense/>

⁸⁵ See "Protection or Proliferation? NIAID Grant Statistics" on the Sunshine Project webpage at <http://www.sunshine-project.org/>

submitted a grant application to NIAID before 2001.⁸⁶ This points to a considerable shift in biomedical research activities due to a changed threat perception and concomitant availability of research funding.

One of the policies enabled by increased funding for the Department of Health and Human Services has led to a programme of establishing eight Regional Centers of Excellence for Biodefense and Emerging Infectious Diseases Research (RCE). According to the HHS press release announcing the new programme in September 2003 “[t]his nationwide group of multidisciplinary centers is a key element in HHS’ strategic plan for biodefense research.”⁸⁷ This will further contribute to the above identified drastic expansion of research into the most dangerous pathogens that could be misused as biological warfare agents. Not only does this channel research capacities away from other areas of emerging diseases, it also seems that some of the institutions selected to become such centers of excellence do not have an unblemished record in terms of biosafety and transparency of their activities.⁸⁸

Another aspect of the securitization of public health, and the life sciences in general, concerns the ‘voluntary’ controls on the publication of research results that might be misused by bioterrorists to develop, produce or disseminate biological warfare agents. These controls are a response to a number of experiments which were published over the last few years. The contentious research in question involved:⁸⁹

- unintentionally potentiating the virulence of the mousepox virus through inserting an IL-4 gene into the mousepox genome;

⁸⁶ Some of the figures quoted on the Sunshine Project webpage are: 97.3% of principal investigators never before funded NIAID for work on anthrax, 94.4% for plague, and 98% for tularemia.

⁸⁷ See <http://www.hhs.gov/news/press/2003pres/20030904.html> for the press release.

⁸⁸ See ‘Sunshine Project Statement on NIAID Announcement of Regional Centers of Biodefense Excellence and analysis of implications for National Biocontainment Labs’, available at <http://www.sunshine-project.org/>

⁸⁹ See the concise summaries of the three cases in National Research Council of the National Academies, Committee on Research Standards and Practices to Prevent the Destructive Application of Biotechnology, *Biotechnology Research in an Age of Terrorism*, Washington, D.C.: The National Academies Press, 2004, pp.24-29.

- synthesis of the poliovirus genome from “chemically synthesized oligonucleotides that were linked together and then transfected into cells”, thereby creating an infectious virus from scratch;⁹⁰
- transfer of the virulence factor of *variola major* (which causes smallpox) into the *vaccinia* virus, which is of much lower virulence and usually used for vaccinations against smallpox.

Concerns expressed over these experiments in both media and the policy community led the National Academies of Science to establish a committee to investigate ways to prevent S&T advances from being misused for hostile purposes.⁹¹ The so-called Fink Committee issued a set of recommendations to address the new environment in which the life sciences are operating and to prevent scientific advances from being misused by states or terrorist groups in BW programmes, while at the same time “enabling legitimate research to be conducted.”⁹²

The Fink Committee’s seven recommendations are:

- “... that national and international professional societies create programs to educate scientists about the nature of the dual use dilemma in biotechnology and their responsibilities to mitigate its risks. ...
- ... that the Department of Health and Human Services (DHHS) augment the already established system for review of experiments involving recombinant DNA conducted by the National Institutes of Health to create a review system for seven classes of experiments (the Experiments of Concern) involving microbial agents that raise concerns about their potential for misuse. ...
- ... relying on self-governance by scientists and scientific journals to review publications for their potential national security risks. ...
- ... that the Department of Health and Human Services creates a National Science Advisory Board for Biodefense (NSABB) to provide advice, guidance, and leadership for the system of review and oversight we are proposing. ...

⁹⁰ NAS, *Biotechnology Research in an Age of Terrorism*, p.27.

⁹¹ Ibid.

⁹² Ibid, p.32.

- ... that the federal government rely on the implementation of current legislation and regulation, with periodic review by the NSABB, to provide protection of biological materials and supervision of personnel working with these materials. ...
- ... that the national security and law enforcement communities develop new channels of sustained communication with the life sciences community about how to mitigate the risks of bioterrorism. ...
- ... that the international policymaking and scientific communities create an International Forum on Biosecurity to develop and promote harmonized national, regional, and international measures that will provide a counterpart to the system we recommend for the United States.”⁹³

The NSABB has in the meantime been established in the office of the director of the National Institutes of Health.⁹⁴ The functions of the NSABB are to “advise the Secretary of HHS, the Director of NIH, and the heads of all federal departments and agencies that conduct or support life science research. The NSABB will advise on and recommend specific strategies for the efficient and effective oversight of federally conducted or supported dual-use biological research, taking into consideration both national security concerns and the needs of the research community.”⁹⁵ The NSABB will be composed of a maximum of 25 voting members whose areas of expertise will cover *inter alia* genomics, bacteriology, virology, laboratory biosafety and biosecurity, public health, pharmaceutical production, bioethics, national security, intelligence and law enforcement. In addition, more than a dozen government departments and agencies will be *ex officio* members of the board.⁹⁶

With a view to the second recommendation concerning restrictions in the publication of problematic research a number of journal editors had imposed restrictions on themselves already before the publication of the Fink committee’s report: in January 2003 a group of 32 journal editors agreed on guidelines related to “Scientific Publication and Security”. After

⁹³ Ibid., p.4-12.

⁹⁴ See the NSABB’s website at <http://www.biosecurityboard.gov/>.

⁹⁵ The Secretary of Health and Human Services, *Charter. National Science and Advisory Board for Biosecurity*, Washington, D.C., 4 March 2004, available at <http://www.biosecurityboard.gov/SIGNED%20NSABB%20Charter.pdf>.

⁹⁶ NSABB Charter, p.2.

first being published in *Science*, the statement also appeared in February in the *Proceedings of the National Academy of Sciences* and in *Nature*.⁹⁷ The authors of the statement

“recognize that the prospect of bioterrorism has raised legitimate concerns about the potential abuse of published research, but also recognize that research in the very same fields will be critical to society in meeting the challenges of defense. ... We recognize that on occasion an editor may conclude that the potential harm of publication outweighs the potential societal benefits. Under such circumstances, the paper should be modified, or not be published.”⁹⁸

5. Implications for US Public Health and the BW Prohibition Regime:

This paper set up to trace the securitization of public health in the US. As has been shown, the Sarin gas attack in Tokyo and the Oklahoma City bombing in 1995 triggered calls for an expansion of countermeasures to the perceived rise in the bioterrorist threat, with these measures increasingly focussing on the merger of public health and biodefense. One indicator for the successful securitization of parts of the US public health system can be found in the terminology employed for some of the legislative measures enacted or organisational structures set up in response to these calls: the Metropolitan Medical Strike Teams established under the 1996 Nunn-Lugar-Domenici Act are an early example in this process of utilizing a terminology traditionally reserved for military or security forces to describe a newly established public health unit. Likewise, following the change in language used to label legislative measures shows a development from acts of Congress primarily concerned with Weapons of Mass Destruction in general terms in the mid-1990s – in which public health preparedness plays a secondary role at best – to the primary concern about health and biosecurity expressed in titles like the 2002 Public Health Security and Bioterrorism Preparedness and Response Act. The changing discourse about public health and biodefense

⁹⁷ See Journal Editors and Authors Group, ‘Statement on Scientific Publication and Security’, in *Science*, Vol.299 (5610), p.1149, available at <http://www.sciencemag.org/cgi/reprint/299/5610/1149.pdf>

⁹⁸ Statement on Scientific Publication and Security, as reprinted in NAS, *Biotechnology Research in an Age of Terrorism*, pp.98-99.

has, as shown above, also led to a substantial increase in funding and shifting budgeting priorities. Thus, not only have a new threat – bioterrorism – and a new object to be secured – the public’s health – been identified, but also new countermeasures to address the new threat been enacted. To use the terminology of Waever, the threat-defense sequence of successful securitization has come full circle.

The securitization of public health in the United States is a fact of life and not likely to be reversed in the foreseeable future as it is a function of bioterrorism being perceived as the number one security threat to US security. Given the probable durability of the underlying threat perception the question arises what the potential implications will be for public health. For the increased federal funding for public health preparedness to result in a positive development of the public health infrastructure in general it would have to increase cooperation among the three levels of government (federal-state-local), address the basic needs of the public health system and not just focus on specialized anti-bioterrorism measures or equipment and provide the increased funding made available since 2002 on a continuous basis. However, it is questionable whether such a positive course of developments is likely to materialize.

As far as the cooperation between the federal, state, and local levels of government is concerned, recent studies have shown the problems to be overcome for the public health system to be effectively integrated in the anti-bioterrorism effort. One report focussing on the strategic national stockpile (SNS) for example concluded that there is a clear disconnect between the provision of the medicines and other supplies by the federal government on one hand, and the capacities to distribute these supplies on the state and local level.⁹⁹ However, the coordination problem does not seem to be limited to capabilities to logistically handle a public health emergency on the state and local levels. Rather, there still seems to be confusion

⁹⁹ Jim Turner, *Bioterrorism: America Still Unprepared*, Report by the Democratic Staff of the House Select Committee on Homeland Security, Washington, D.C., October 2004.

about the threat assessment underlying the anti-bioterrorism policies of the federal government. This complicates planning of the response to this threat across the three levels of government. In addition, as one recent survey has revealed, there is still a significant proportion of public health officials on the state and local levels which do not rank bioterrorism as one of the most important public health issues. They instead identify behavioral health, chronic diseases, and access to basic health care as their top priorities in the coming years.¹⁰⁰ Not surprisingly then, these members of the public health workforce – instead of preparing for an event of bioterrorism which might never materialize – see a greater utility in concentrating resources on public health’s long established core missions.

The US is one of the most important actors in the BW prohibition regime. Seen in a historical perspective, the US unilateral renunciation of BW was instrumental in paving the way for the 1972 BWC, and ever since successive US governments have placed a heavy emphasis during BWC review conferences on treaty compliant behavior of other BWC states parties. One of the normative guideposts for states to follow in order to be in compliance with their obligations under the BWC stems from the convention’s Article IV, which gives expression to the internalization norm.¹⁰¹ On first glance, it could seem that the expansion of public health related programs, the search for better BW countermeasures through the massive increase in biodefense related biomedical research activities is in line with the regime’s internalization norm. However, as the above quoted criticism by Leitenberg and others shows, some of these very activities are pushing the boundaries of what is permissible under the provisions of the BWC. To the extent that other states will follow the US lead in these activities, the meaning of another regime norm, that of BW non-acquisition, might become increasingly contested over time.

¹⁰⁰ Gursky, *Drafted to Fight Terror*, p.22.

¹⁰¹ See Kelle, *Securitization of International Public Health*, pp.12f., 38.

On a more positive note, one could argue that another regime norm, identified in the previous briefing paper as a potential beneficiary of the securitization of public health, i.e. the assistance norm, might be strengthened as a result of US policies at the intersection of public health and national security. One could argue that all these civilian biodefense efforts will ultimately lead to improved defensive capabilities to counter a BW attack. Under BWC Article VII this should put the US in a much better position to come to other states' assistance. Yet, there are two unknowns in this equation: first, it is unclear which additional countermeasures will have been developed by the time such assistance might be required. Second, the BWC does not contain an automatism for states parties to assist one another. Such a decision is always left to the individual member state. Thus, a state could decide that it might need all its available countermeasures for itself, should it be next to come under attack, or simply refuse to assist for political reasons. This clearly limits the potential benefits for the strengthening of the regime.

Although it has not been the major focus of this paper, it is clear that the US government does not pursue its policies in isolation, but cooperates with numerous states in either bilateral or multilateral frameworks, be it the World Health Organization, the Australia Group, the newly established Proliferation Security Initiative, or others. However, all these institutions – with the exception of the WHO – represent mechanisms which run parallel to the BW prohibition regime in their attempts to counter the threats from BW and thus risk to undermine its effectiveness in the long run. The more these alternative fora are regarded as the ones to provide the “real” solutions to the BW threats of the 21st century, the more will the BW prohibition regime be weakened.

In the first instance the US – or any other BWC state party embarking on a comparatively ambitious (and ambiguous) biodefense programme – should be held accountable for its actions and should have to demonstrate its treaty compliance, not be

allowed to just assert it. As to the impact of the securitization of public health on regime development, there is no direct causal relationship that this paper could establish. Yet, it should have become clear that the securitization of the public health and biomedical research infrastructure makes available a set of tools which will appear attractive to policy makers who are already disposed to view defenses against BW as a much more viable course of policy than reliance on multilaterally agreed upon norms of behavior. In this sense securitizing public health – especially in states which are key to future regime development – indirectly contributes to casting a shadow over the future robustness of the BW prohibition regime.