

After-Action Report



- Southern Caucasus Workshop-

*Public Health, Security, and Law Enforcement Partnership in
Bio-Incident Pre-Planning and Response*

and

Bioterrorism Tabletop Exercise

Southern Caucasus BioShield 2010



Strength is in unity



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EXECUTIVE SUMMARY

The Southern Caucasus Workshop on *Public Health, Security, and Law Enforcement Partnership in Bio-Incident Pre-Planning and Response* was held in Tbilisi, Georgia, 11-12 May 2010, pursuant to Georgia's request to the US Government for assistance on assessing the national (inter-sectoral), regional, and international unity of effort in response to potential biological incidents, and to prepare for the 2010 Biological Weapons Convention (BWC) meetings (which will address and promote common understanding and effective action on the provision of assistance and coordination with relevant organizations upon request by any State Party in the case of alleged use of biological weapons).

Specific workshop goals:

- To foster improved understanding of the respective procedures and requirements of public health, security and law enforcement in response to a biological incident, and to enhance their joint effectiveness in pre-planning and response at the national and regional/international level;
- To enhance understanding of intergovernmental organizations' role and their interaction in the process of sharing information and coordinating response;
- To emphasize the concept that information exchange in the early stages of a biological incident is critical to effectively apprehending the potential perpetrators and containing the outbreak;
- To review the existing legal and regulatory infrastructure of national measures consistent with the obligations under the BWC, UN Security Council; Resolution 1540 (UNSCR 1540), and WHO International Health Regulations (IHRs) to deter, prevent, or respond to biological incidents or threats.

The workshop was funded by the US Department of Defense, Defense Threat Reduction Agency (DOD/DTRA). Its coordination and execution were a joint effort of DOD/DTRA; US Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response (HHS/ASPR); and Georgia's Ministry of Labour, Health, and Social Affairs, National Center for Disease Control and Public Health (MoLHSA/NCDC).

About 80 participants were in attendance, from inter-governmental organizations (WHO, INTERPOL, NATO), US Government [DOD/DTRA, HHS (ASPR and Centers for Disease Control and Prevention, CDC), Department of Energy (Sandia National Laboratories), Department of State [US Embassy in Georgia and the Bureau of Verification, Implementation, and Compliance (VCI), Office of Biological Weapons Affairs (BW)], and the Department of Justice (Federal Bureau of Investigation (FBI)], and from public health, security, and law enforcement organizations from Georgia, Azerbaijan, Armenia, Kazakhstan, Moldova, and Romania. Invitations have been sent to Ukraine and Kyrgyzstan as well but their participation could not be secured in time. Non-governmental organizations (NGOs) such as VERTIC (Verification Research, Training and Information Centre), Bechtel, and Global Green USA were also represented at the workshop.

The workshop and associated tabletop exercise Southern Caucasus *BioShield 2010* were highly praised by those in attendance and stimulated additional requests for follow-on training events and inter-organizational engagement to improve inter-sectoral and international cooperation, coordination, and partnership to prepare for, and respond to biological threats.

**OVERVIEW OF
SOUTHERN CAUCASUS WORKSHOP ON
PUBLIC HEALTH, SECURITY, AND LAW ENFORCEMENT
PARTNERSHIP IN
BIO-INCIDENT PRE-PLANNING AND RESPONSE**

The Southern Caucasus, comprising Georgia, Armenia, and Azerbaijan, is a region at the gateway between Asia and Europe that has seen in recent past inter-state and ethnic conflicts some of them escalating to full-scale conventional warfare. The countries in this region had to deal with the legacy of the Soviet biological weapons program and had to institute biosecurity measures to prevent the theft, diversion, or misuse of biological materials, equipment, and expertise, while in the same time, working to strengthen their public health systems in order to deal with the burden of endemic infectious diseases.

Southern Caucasus countries acknowledge that implementation of the consistent policies, operating procedures, and the operational and technical capacity required by the WHO International Health Regulations (IHRs) will help ensure early warning and efficient international management of a biological incident, whether naturally occurring or deliberate in nature. In addition, these countries support national activities toward meeting their obligations under the Biological Weapons Convention (BWC) and UN Security Council Resolution 1540 (UNSCR 1540) such as the adoption of appropriate legislative or administrative measures, including criminal law provisions; enhancing effective implementation and enforcement of these measures; and improving coordination and networking among relevant national stakeholders, in order to build strong barriers to BW proliferation and deny access to non-State actors.

Georgia' request for assistance with the workshop organization was directly related to the 2010 BWC Meeting of Experts and Meeting of States Parties which will discuss and promote common understanding and effective action on the provision of assistance and coordination with relevant organizations upon request by any BWC State Party in the case of alleged use of biological or toxin weapons, including improving national capabilities for disease surveillance, detection and diagnosis and public health systems.

Workshop was also intended to familiarize participants with:

- WHO's revised International Health Regulations (2005) and Global Outbreak Alert and Response Network (GOARN);

- The UN Secretary-General's Mechanism for Investigation of Alleged Use of Chemical and Biological Weapons and its key elements [trigger procedures under the BWC, the roster of experts and laboratories provided by BWC Member States, and the guidelines and procedures for the conduct of investigations as updated by the UN Office of Disarmament Affairs (UNODA)];
- NATO's resources for assistance to Partner countries, its Defence Against Terrorism Initiative, and NATO's recent (2009) Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMDs) and Defending against CBRN Threats;
- SECI-GUAM (Southeast European Cooperative Initiative Virtual Law Enforcement Center against Trans-border Crime of Georgia, Ukraine, Uzbekistan, Armenia and Moldova) and SECI Regional Center for Combating Trans-Border Crime-Bucharest, as regional resources for combating organized crime and also trafficking in WMD materials;
- Interpol's Bioterrorism Prevention Programme and its resources for assistance to member countries.

The workshop was also intended to highlight the respective National Response Plans, the HHS/CDC activities in the region [which are aimed at strengthening the national response capabilities to infectious disease outbreaks through training of the public health workforce, enhancing public health leadership, and implementing laboratory quality management systems via the *Southern Caucasus Field Epidemiology and Laboratory Training Program (SCFELTP)*], and the *Biological Threat Reduction Program (BTRP)* supported by DOD/DTRA which, in addition to developing technical competencies, also builds and improves the required laboratory infrastructure.

The workshop was organized as a series of plenary presentations ("academics") followed by a tabletop exercise focused on bioterrorism prevention, deterrence, and response. Simultaneous interpretation services were provided to/from English-Georgian and English-Russian languages.

Participants received at registration a welcome package containing the workshop agenda, list of participants, table top exercise scenario, and reference materials (on relevant resources, programs, and initiatives of WHO, BWC, UNSCR 1540, Interpol, and NATO). Disks containing electronic versions of these materials (plus presentations, speakers' bios, and lists of relevant legislation in Georgia, Armenia, and Azerbaijan) were also distributed to attendees.

At the workshop/TTX conclusion, participants received nominal Certificates of Appreciation with the following message:

"In recognition to your participation to the Southern Caucasus Workshop and Tabletop Exercise on Public Health, Security, and Law Enforcement Partnership in Bio-Incident Pre-Planning and Response conducted in Tbilisi, Georgia, 11-12 May 2010. Your efforts greatly contributed to a very successful training event and to the continued commitment to improve regional and global partnerships in preparedness and response to biological incidents, whether natural, accidental, or deliberate in nature".

WORKSHOP ACADEMICS

The first day of the Southern Caucasus Workshop on *Public Health, Security, and Law Enforcement Partnership in Bio-Incident Pre-Planning and Response* commenced with introductory remarks by high-level keynote speakers such as Professor Nikoloz Pruidze, Deputy Minister of Labour, Health and Social Affairs (MoLHSA), Georgia; Mr. Kent Logsdon, Deputy Chief of Mission, US Embassy, Georgia; and Dr. Amiran Gamkrelidze – Director, WHO-Georgia Office. The keynote speakers were introduced by Dr. Dana Perkins, Senior Science Advisor, US Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response.

The plenary session featured two sessions on Public Health Security (international and national perspective, respectively), followed by presentations highlighting the whole-of government concept of the US National Response Framework and the HHS role as a lead Federal agency for ESF#8; Southern Caucasus-relevant programs of CDC and DTRA (SCFELTP and BTRP, respectively); and joint public health-law enforcement investigations.

Unfortunately, the plume of Icelandic volcanic ash led to the significant travel delay and eventual cancelled participation of the UN keynote speakers, Mr. Franz Kolar from the Office of Disarmament Affairs (UNODA) and Ms. Ngoc Phuong Huynh from the BWC Implementation Support Unit (ISU), who were bound for Tbilisi. In addition, the organizers' invitation to the 1540 Committee Expert Group was not accepted and the SECI-GUUAM & Regional Center-Bucharest were unresponsive. The combined effect of these nature- and man-made events led nevertheless to a collaborative effort and an opportunity of on-site speakers to cover the UNODA, BWC ISU, and UNSCR 1540 topics.

Training Objectives

The first session offered an international perspective on *Public Health Security - A Multi-Layered System of Defense*, and it focused on the role of international organizations in, *inter alia*, information sharing on public health events of international concern, early disease detection and notification, BW nonproliferation, UN Secretary General's investigative mechanism for alleged use of BW, and coordination of assistance for consequence management of biological incidents.

Dr. Roberta Andraghetti from WHO-EURO provided an overview of the implementation of the International Health Regulations (2005) [IHR], the WHO event management structures and process. The current IHR – the international agreement designed to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade - entered into force on 15 June 2007. The current IHRs define obligations to assess and manage public health risks and events that have the potential to spread beyond national borders and provide guidance to WHO Member States for meeting those obligations.

Under the current IHR, countries must report to WHO any cases within their borders of specific diseases: smallpox, polio caused by a wild-type poliovirus, human influenza caused by a new subtype, and SARS. In addition, countries must notify WHO in a timely way of any public health event - whether of infectious, chemical, biological, or radiological nature - that might have international public health implications according to the criteria detailed in Annex 2 of the Regulations. Once relevant national authorities detect an event, the risk assessment should be conducted and, within 48 hours from the assessment, an event with potential international public health implications should be reported to WHO. Additional information to refine the risk assessment should be provided to WHO according to the timeframe stipulated in the relevant provisions.

Dr. Roberta Andraghetti also discussed the challenges associated with differentiating between a natural outbreak of disease and a deliberate biological event (DE). Dr. Andraghetti mentioned that “*Although primary responsibility for risk management of DEs rests with national governments, WHO is well placed to coordinate DE-specific global public health preparedness, early warning threat detection and global surveillance, and to support Member States in collaboration with international law enforcement and security agencies (UNSG’s mechanism for the investigation of the alleged use of biological weapons (GA/44/561), and/or Interpol)*”.

INTERPOL's Manager of the Bioterrorism Prevention Program, Mr. Joris De Baerdemaeker, described the Interpol's Bioterrorism Prevention Unit, the program's initiatives on building national and international capacity to counter the threat of bioterrorism (i.e. via threat awareness raising, law

enforcement training programs, providing support to strengthening/developing national legislation, and developing tools for law enforcement investigations), and the role of Interpol and its resources in assisting members states in response to deliberate biological incidents, criminal or terrorist in nature. One of such resource, the Interpol's 2007 *Bioterrorism Incident Pre-Planning & Response Guide*, was included as a reference material on the disks handed to the workshop attendees.

Mr. Axel Angely, Co-Director of the Centre of Weapons of Mass Destruction at NATO, discussed NATO organizational structures, the role of UNSCR 1540 in facilitating NATO's efforts on combating WMD proliferation, and NATO's *Comprehensive, Strategic-Level Policy for Preventing the Proliferation of WMDs and Defending against CBRN Threats*. Key points with regard to the said policy referred to strengthening intelligence and information sharing and CBRN reachback; the role of public diplomacy and strategic communications; its focus on prevention and strengthening international nonproliferation mechanisms (i.e. BWC, UNSCR 1540, Proliferation Security Initiative, etc); and increased information exchange, engagement, cooperation, and joint training with partners, international and regional organizations, and civilian entities.

VERTIC (Verification Research, Training and Information Centre) is an independent, not-for-profit, non-governmental organization which promotes effective verification and implementation measures for arms control and disarmament agreements (such as BWC, UNSCR 1540, etc) (website: <http://www.vertic.org>). VERTIC's Mr. Scott Spence, JD, provided an overview of BWC and BW-related requirements of UNSCR 1540 as well as ways of effective implementation at the national level.

The national perspective on *Public Health Security - A Multi-Layered System of Defense*, was provided by keynote speakers from Georgia, Armenia, and Azerbaijan. The speakers were introduced by Dr. Lela Bakanidze, Deputy Head, Department of Especially Dangerous Pathogens, National Center for Disease Control and Public Health (NCDC), Ministry of Labour, Health and Social Affairs (MoLHSA), Georgia.

This session was intended to address the national response frameworks in Georgia, Armenia, and Azerbaijan. Issues to be addressed included, *inter alia*: national plans and responsible authorities for bio incident consequence management, exercises/training in support of national plans, whole-of-government and regional collaboration approaches and/or plans for national/international information sharing and notification, epidemiological/law enforcement investigations, consequence management, and coordination of assistance.



Dr. Paata Innadze, Director, National Center of Disease Control, Georgia, provided an overview of the communicable disease surveillance (notifiable and reportable disease groups) in Georgia, examples of outbreak investigations and containment (e.g. tularemia 2006-2007), H1N1 influenza pandemic preparedness and response, and the role of the Department of Emergency Management of the Ministry of Internal Affairs in coordinating the Government of Georgia response to natural or deliberate incidents in accordance to the Georgian National Response Plan. His organization, the Georgian NCDC, conducts surveillance on communicable and non-communicable diseases; disease control and prevention; health promotion activities; collection and processing of medical statistical data; and biomedical research. In addition, NCDC houses the Georgian national collection of especially dangerous pathogens. The NCDC network comprises 11 regional and 66 district (rayon) Centers for Public Health (CPH).

Dr. Innadze also described the genotypic characterization of the pathogens in the NCDC repository collection using advanced molecular biology techniques (Pulse Field Gel Electrophoresis, Insertion Sequence Element Fingerprinting, Multiple-Locus Variable Number Tandem Repeat Analysis, and Restriction Fragment Length Polymorphism analysis); such molecular biology technologies could be used in microbial forensic applications (to complement ancillary evidence) provided that adequate sample collection and Quality Assurance/Quality Control practices are in place.



Dr. Levon Sahakyan, Head of Zooparasitological Laboratory, Center of Prevention of Special Dangerous Infectious Diseases, Ministry of Health, Armenia, presented an overview of the endemic/emerging diseases and their vectors distribution in Armenia and the region [e.g. Crimean-Congo Hemorrhagic Fever (CCHF) virus and the *Hyalomma marginatum* tick distribution]. Vector-borne diseases in Armenia include CCHF, boutonuse fever, leishmania, malaria, Tahyna virus, plague, cholera, tularemia, and West Nile virus. The information generated on disease endemicity and vector distribution could be used to strengthen the capacity for generating and sharing specific disease intelligence and to mount emergency preparedness planning against the eventuality of a respective disease being introduced into the region. Dr. Sahakyan also informed the participants on the Emergency Public Health Information Surveillance System and the Armenian ministries involved in emergency response, in particular the Ministry of Emergency Situations and its subordinate components.



Azerbaijan also has a large number of endemic (or potentially endemic) infectious diseases. Dr. Shair Gurbanov, Deputy Director of the Republic Anti-Plague Station in Baku, Azerbaijan, talked about the challenges

associated with the frequent cholera outbreaks in Azerbaijan, most of them imported by international travelers (in particular travelers from neighboring countries experiencing cholera outbreaks). Of note, *Vibrio cholerae* El Tor was detected in open water sources from April to November, with a maximum concentration in the summer months (80%), in particular July (33.5%). The human outbreaks occurred primarily in August-September. In Azerbaijan, cholera is primarily transmitted by contaminated water and food. Dr. Gurbanov provided an overview of a 1985 food-borne cholera outbreak triggered by consumption of contaminated pilaf at the wake of a woman who, ironically, died of food poisoning (*Vibrio cholerae* El Tor was isolated from her gallbladder after death). Dr. Gurbanov also described the planned, future work on *V. cholerae* (molecular and epidemiological characterization of various environmental isolates) to be carried out at the Anti-Plague Station in Baku and also the needed modernization of laboratory capabilities available on site.

[Of historical interest, the Anti-Plague (AP) System in Azerbaijan was created as a follow up to the 1932 plague outbreak which occurred in central Azerbaijan and killed 35 people in 43 days; about seven Anti-Plague outposts have been established in the following years post-outbreak at the border with Iran for cross-border disease surveillance. A Railway AP Station (RAPS) was established in 1951 in response to another plague outbreak which occurred on the territory controlled by the Azeri railway system. After the fall of the Soviet Union, the Azeri AP System consisted of the Republic AP Station, 6 field AP stations, and two seasonal laboratories. Even now, the Azeri scientists estimate that plague is endemic in about one third of the Azeri territory; the natural host reservoir is believed to be the red-tailed gerbil. The Republic AP Station has increased its role in the Azerbaijan's public health system over the years, by taking on epidemiological control responsibilities and increasing its laboratory capabilities. Implementing prophylactic measures against cholera became part of the AP System's mission a few years after the Uzbek cholera outbreak of 1965. The Republic AP Station is also actively engaged currently in educational outreach and training activities including hosting courses on especially dangerous infectious diseases.]

The afternoon session on *Epidemiological Surveillance and Investigation* focused on the capacities and competencies needed to rapidly conduct efficient epidemiological investigations. It included references to deliberate and naturally occurring exposure and disease detection, implementation of active surveillance, maintenance of ongoing surveillance activities, epidemiological investigation, analysis, information sharing, and whole-of-government response. Emphasis was placed on the relevance of competencies acquired via the *Southern Caucasus Field Epidemiology and Laboratory Training Program (SCFELTP)* and capacity building under the *Biological Threat Reduction Program's Threat Agent Detection and Response (TADR)* component, as well as on public health and law enforcement cooperation to identify the biological threats, prevent the spread of the disease, prevent public panic, and apprehend those responsible.

The SCFETP overview was presented by Dr. Edmond Maes, Chief, US CDC - Georgia Country Office. The program is modeled after the CDC

Epidemiological Intelligence Service and consists of 25% class activities and 75 % field work. While in class, trainees take courses in epidemiology, communications, economics, and management. They also learn about quantitative- and behavior-based strategies. In the field, trainees conduct epidemiologic investigations and field surveys, evaluate surveillance systems, perform disease control and prevention measures, report their findings to decision-makers and policy-makers, and train other health workers. The Field Epidemiology and Laboratory Training Program (FELTP) offers an added laboratory component to the basic FETP aiming to build and strengthen the bridging between laboratory services and epidemiology and thus improve surveillance and outbreak response. The Southern Caucasus program commenced in 2009 and continued in 2010 (with participants from the Ministry of Health and Ministry of Agriculture from Georgia, Armenia, and Azerbaijan). For more information on FE(L)TP please visit: <http://www.cdc.gov/globalhealth/fetp>

Mr. Cassel J. Nutter, Chief, DTRA-Georgia Country Office, briefed the participants on DTRA's *Biological Threat Reduction Program (BTRP)* and its components [BW Infrastructure Elimination; Biosafety & Biosecurity; Cooperative Biological Research; and Threat Agent Detection and Response (TADR)]. The BTRP surveillance and response capabilities in Georgia rely on a network of sentinel medical facilities throughout the country, a Central Reference Laboratory (CRL) and national response teams that will identify, investigate, and respond to natural or deliberate biological outbreaks or incidents. Under BTRP/TADR, Georgia will have one CRL, seven Epidemiological Monitoring Modules, and two Mobile Outbreak Response Units to provide enhanced reporting, detection, and response capability for human and veterinary especially dangerous pathogens.

No single community can prepare fully nor respond completely, to a large-scale biological incident, and whole-of-government and community partnership are necessary for timely and effective preparedness and response at the national level. These were the main messages of Dr. Dana Perkins, Senior Science Advisor, HHS/ASPR, when presenting the *Whole-of-Government Approach to Consequence Management of Biological Incidents and Hazards*, summarizing the US National Response Framework (NRF), the role and responsibility of HHS as the lead Federal agency for providing public health and medical services under the Emergency Support Function # 8 (ESF#8), and the roles of other agencies as described in the Biological Incident Annex of the NRF (e.g. the issue of public health reporting to the FBI instances of disease that raise the "*index of suspicion*" of terrorist or criminal activities provided a segue to the next topic of the day).

The joint CDC/FBI presentation on *Pursuing a Joint Strategy: Public Health-Law Enforcement* was a team effort of Dr. Konrad Hayashi, Chief, Epidemiology, Surveillance and Response Branch, Division of Bioterrorism Preparedness and Response, CDC, and Supervisory Special Agent Kristine Beardsley, FBI, WMD Directorate. They defined the goals of public health and law enforcement during an event, discussed the key elements for planning, prevention and response, and described approaches for information sharing

during an event. The speakers highlighted the benefits of working in partnership and the critical elements for achieving common goals (i.e. protecting the public, preventing/stopping the disease, identifying those responsible for the threat/attack, protecting own personnel during response/investigation), securing dangerous pathogens, establishing information sharing protocols and procedures (related to threat assessment, investigations, and interviews), and conducting joint training. *The Joint Public Health-Law Enforcement Investigations: Model Memorandum of Understanding (MOU)* was distributed to workshop participants as reference material. The sample MOU was developed in 2008 by the Public Health and Law Enforcement Emergency Preparedness Workgroup (a partnership between CDC's Public Health Law Program and the Bureau of Justice Assistance of the US Department of Justice).

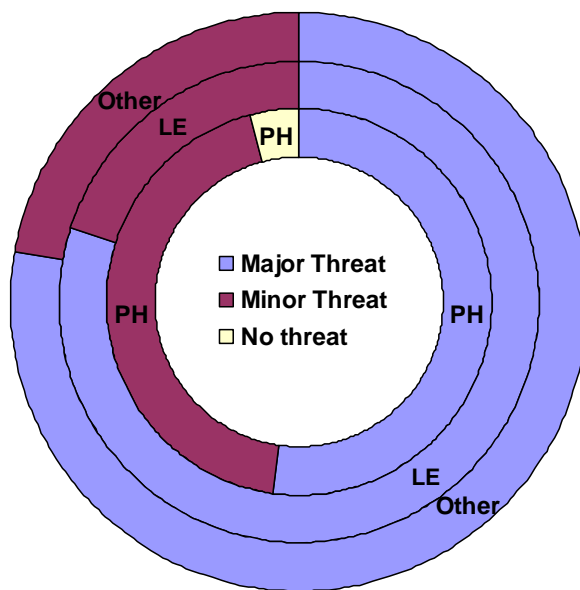
Workshop Participant Feedback

The following feedback was provided by participants on survey forms (template is shown in Annex C). Data below provide some empirical information on the workshop audience and their perceptions.

40 participants (24 public health, 5 law enforcement, and 11-other categories) returned their workshop survey forms. 100 % agreed that *“there is benefit in fostering and improving the dialogue and common training between public health and law enforcement”* and 100% of those who answered, agreed that *“there is benefit in fostering a relationship, improving communication, and building trust between the security and scientific communities”*.

However, the biological threat perception differed among each community. Biological weapons were considered a lower threat by the public health community (PH) when compared with the assessment of law enforcement (LE) or that of other stakeholders of mixed expertise (Other)- as illustrated in the chart below.

BW Threat Perception



The public health community was also more reluctant to agree with instituting new regulations (on genetic engineering) compared to the law enforcement (79.2% versus 100%) or other stakeholders (79.2% versus 90%). However, there were no negative responses from either community when asked whether *“individuals engaged in the life sciences and related fields (e.g., microbiology, biochemistry) should adopt a professional code that highlights the dual-purpose use of scientific knowledge, condemns biological warfare, and specifically encourages or requires ethical conduct to prevent the deliberate malevolent use of highly infectious pathogens”*.

With regard to prior training on the topics addressed by the workshop, 23.1% of survey responders stated they had no prior training in these topics while 17.9 % said they need more training. The majority 59% said they had “*sufficient training to help them do a good job at work*”.

	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A
1. The workshop was well organized.	67.5%	27.5			5%
2. The exercises was well facilitated	70%	27.5	2.5%		
3. The reference materials were very useful	62.5%	30%			7.5
4. The exercise met the stated objectives.	47.5%	50%			2.5
5. The workshop and exercise were relevant to my job and my role in an emergency.	45%	45%			10%
6. The exercise helped me to integrate and practice the skills and knowledge I learned in prior trainings.	47.5%	47.5 %			5%
7. Participating in the workshop & exercise increased my understanding of preparedness and response to bioterrorism	60%	35%			5%
8. I would like to participate in more training events of this kind	57.5%	35%			7.5 %

71% of respondents considered that the length of the workshop was “*about right*” with the other 29% considering that it was too short.

In terms of training usefulness to the individual and the organization they represent, 36% answered “*excellent*”, 51% answered “*very good*”, and 13% answered “*good*”.

Additional comments from participants (on survey forms):

- Add one more day of training (or more time for TTX)
- Include more law enforcement participants
- Balance audience with the right mix of participants with similar expertise
- Provide periodic/refresher training
- Share best practices, lessons learned, and procedures for real-world cases
- Exercise 2 different scenarios and compare the responses
- Scenario to be provided (in English and Russian) much sooner than at the workshop’s start to give time to participants to prepare

Lessons Learned and Recommendations

From the organizers' point of view, while the first day of the workshop proceeded without technical or human glitches, there were a few lessons learned that should be taken into consideration when planning similar events:

Planning:

- Planning for the training event should start optimally at least 6 months in advance to allow for coordination of travel logistics and organizational details, speakers confirmation, and alternative courses of action (IMPROVE);
- While having no control over the forces of nature (e.g. the Icelandic volcanic ash plume), an extended timeline (at least 2 days for the academics portion of the workshop) to cover the proposed topics would have helped with coping with travel delays (by adjusting the agenda) and ensuring more time for Questions & Answers sessions (IMPROVE)

Content:

- The workshop had the right mix of strategic (policy-level, inter-governmental), tactical, and operational briefings to engage a very diverse audience (SUSTAIN);
- The operational briefings should be complemented with capabilities demonstration (e.g. specialized, multi-disciplinary response units displaying equipment and tools, and available for questions on techniques, tactics, and procedures) (IMPROVE);
 - Note: This issue was raised by Georgia representatives and suggested for a follow-on workshop/training event in 2011 in Georgia (contingent on funding availability and finding event sponsors)
- Include more details about the terminology and procedures specific to law enforcement and public health (IMPROVE)
- Include in future events military speakers (from Ministries of Defense) to address the issue of defense support to civilian authorities and civilian-military unity of effort in response to deliberate biological incidents and coordination of counter-terrorism activities (IMPROVE)
- Invite the Organization for Security and Co-operation in Europe (OSCE)'s Anti-Terrorism Unit at future events to address the coordination of OSCE's counterterrorism activities, member capability development, and information sharing (IMPROVE)
- The overlapping biosafety/biosecurity requirements (or similar paths to meet these requirements) under WHO IHR, BWC, and UNSCR 1540, should be further explored and highlighted to international audiences (IMPROVE).
 - Effective national approaches on ensuring biosafety and biosecurity will contribute to: (a) preventing the BW development, acquisition or use; BWC implementation; and (c) fulfilling other international obligations and agreements, such as the revised International Health Regulations (IHRs) of the World Health Organization and the provisions of United Nations Security Council resolution (UNSCR) 1540 (2004).
 - Provide additional time on the agenda to address ways and means for achieving these aims via: (a) development of national biosafety and

biosecurity frameworks; (b) defining the role of different national agencies and bodies; (c) building national, regional and international networks of relevant stakeholders; (d) taking better advantage of assistance means already available; (e) improving bilateral, regional and international cooperation; (f) cooperation and assistance to build relevant capacity.

- The interest raised by the joint CDC/FBI presentation prompted discussions about the inclusion of a short module on *Joint Public Health-Law Enforcement Investigations* in the standard SCFETP curriculum (FOLLOW UP ISSUE).
 - Note: this is an issue for follow up discussions with CDC - Georgia Country Office, CDC- Atlanta, and FBI

Execution:

- One day of academics is too short a time for in-depth discussions, especially if additional topics (e.g. civilian-military integration) and resources (e.g. capabilities demonstration, industry exhibits, etc) are to be added (IMPROVE)

SOUTHERN CAUCASUS BIOSHIELD 2010 TABLETOP EXERCISE



The SOUTHERN CAUCASUS BIOSHIELD 2010 Tabletop Exercise (TTX) was conducted on the second day of the workshop and consisted of facilitated, informal discussions about general policies, procedures, and courses of action driven by a fictional bioterrorism scenario to encourage and enhance information sharing, as well as prepare for, and coordinate the response to an international bioterrorism incident originating in Southern Caucasus. Workshop participants were provided with the Exercise Situation Manual (EXSIM) as a guide and reference manual for the exercise.

The name of the TTX and the custom-designed logo (a shield displaying the national flags of Georgia, Armenia, and Azerbaijan, and a faded biohazard sign) were conceived to illustrate the benefits of regional and international partnership in “*shielding*” countries against biological threats.

The events described in the *SOUTHERN CAUCASUS BIOSHIELD 2010* scenario were entirely fictional and were not based on any organization’s views or opinions that such a bioterrorism event was likely to occur; in addition, the scenario was not intended to debate the technical feasibility of splicing bacterial toxin genes into viruses. The initial scenario and associated moves were drafted by Dr. Dana Perkins, HHS/ASPR, and they were revised based on input received from the members of the TTX Planning Team listed below. The choice of biological agent, locations of clandestine facilities and bioterrorist attacks, and any other references to real-world geographical locations or events, were arbitrary and only intended to stimulate the engagement of as many as possible workshop participants regardless of their particular expertise or nationality.

The exercise discussions promoted *inter allia*, common knowledge about various organizations’ roles and responsibilities, challenges associated with bioterrorism, and the benefits of inter-sectoral and international cooperation in mitigating the consequences of a biological event, whether natural or deliberate. Participants were informed that the decisions made during exercise discussions and/or their expressed opinions were not for attribution or intended to set any precedents and may not reflect an organization’s or nation’s official position on a given issue.

Training Objectives

TTX Goals and Objectives

- Strengthen national, regional, and international cooperation and coordination in preparing for, detecting, and responding to a deliberate biological incident
- Foster improved understanding of investigative procedures and requirements of public health and law enforcement communities in responding to a deliberate biological incident; enhancing their joint effectiveness in pre-planning and response at the national and regional level.
- Emphasize the concept that information exchange (inter-sectoral and international) in the early stages of a biological incident is critical to effectively apprehend the perpetrators and contain the outbreak.
- Review existing legal and regulatory infrastructure of national measures consistent with the obligations under the WHO IHRs, BWC, and UNSCR 1540 to deter, prevent, and respond to deliberate biological incidents or threats.

General Mission Areas For Participants' Consideration

- Prevention/Deterrence
- Emergency Assessment/Diagnosis
- Emergency Management/ Response
- Hazard Mitigation
- Evacuation/Shelter/Movement Restrictions
- Victim Care
- Public Health Investigation/Law Enforcement Apprehension
- Recovery/Remediation
 - Environmental Decontamination/Cleanup
 - Personal Decontamination
 - Site Restoration
- Implications
 - Secondary Hazards/Events
 - Fatalities/Injuries
 - Property Damage
 - Service Disruption
 - Economic Impact
 - Long-term Health Issues

Exercise Format

Participants (from Georgia, Armenia, Azerbaijan, Kazakhstan, Moldova, Romania, and US, as well as IGOs and NGOs representatives) were divided into four break-out groups and encouraged to share their views with their group and the workshop audience at large. Two TTX Facilitators were assigned per each break-out group.

The scenario was presented in the plenary session in three phases (or “moves”) by one of the TTX Coordinators. After each move, the TTX Coordinator posed the discussion topics and the TTX Facilitators jumpstarted and coordinated the small group discussions and interactions and also encouraged a speaker from each group to share with the general audience possible courses of action based on the group’s conclusions and also on his/her national experience, and the role and responsibility of the organization they represented. The TTX Facilitators also joined the volunteer speaker from their group to add, when necessary, more details about the group’s debates and decisions.

1. TTX Planning Team Contact Information

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2. TTX Coordinators

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Carlos Salazar	USA	DOE/Sandia	casalaz@sandia.gov	+1 505 844 6062
Roberta Andraghetti	Denmark	WHO-EURO	RAN@euro.who.int	+45 30947745

Scenario Overview

The idea of this particular TTX scenario stems from concerns expressed by international security analysts and media that the criminal (e.g. drug or human trafficking) and terrorist networks may converge at the operational level regardless of the presence or absence of a common ideology between the respective groups. Therefore, sharing the terrorists' motivational ideology or having sympathy for a "terrorist cause" are not pre-requisites for this potential association since a smuggler from a conflict zone or a non-governed area may only concern himself with responding to a specific demand (seen as a money-making opportunity) without the need to check the morality of his decisions. This "money-making opportunity" may involve using the same illicit drug-trafficking networks to also move WMD materials across borders.

While persistent conflict and poverty may undermine community values and allow a "smuggler" to associate himself with a terrorist cause for monetary profit, will a young scientist fall prey to the same temptation or his "moral compass" will trigger his disengagement from such activities? And what will be the roles of the educational system and those of the community in affecting such an individual decision? What about the roles of government's policies and actions in facilitating the roles of the educational system and community in providing guideposts for ethical behavior? *The Southern Caucasus Bioshield 2010* scenario was intended to explore primarily the response actions but also raise questions on prevention and deterrence of terrorist acts. The necessity and/or usefulness of a code of conduct for scientists and the role of community engagement were not explored in depth but questions were raised as "*food for thought*". In order to stimulate critical thinking, the scenario was also non-specific on purpose with regard to whether the fictional scientist contributed willingly or unwillingly to the terrorist act (or what were the legal implications in either case); the source of biological agents mentioned in the scenario (i.e. discussion of biosecurity measures in prevention/deterrence); and the source of equipment and reagents (and whether such purchases would trigger a law enforcement initiative).

[As a side note, on the subject of regulations and prevention measures, one of the workshop participants noted in his/her survey form that "*as long as human beings continue on this universe, they will always come up with evil things to do to each other...*"]

Enter the young PhD graduate with scientific background working in a clandestine lab in Fergana Valley (shared by Uzbekistan, Kyrgyzstan and Tajikistan), producing fake, counterfeit "Botox" in an operation financed by the fictional terrorist group Al-Waba operating across Southern Caucasus. He presents his desire to prove a scientific theory (that the botulinum toxin was subject to horizontal transfer from a virus in the *Clostridium botulinum* bacterium's evolutionary past) as a way to optimize the manufacturing process, and obtains the go-ahead of Al-Waba. The resulting genetically-engineered adenovirus expressing botulinum toxin will become the biological weapon of choice of Al-Waba terrorists upon animal testing and mass production in a clandestine facility located in Pankisi Gorge.



The TTX MOVE 1 was arbitrarily considered D Day (set on 01 February 2010) when the public health system starts receiving patients with adenovirus respiratory symptoms (not uncommon in the winter season) and/or disparate cases of botulism (which occur frequently in the Southern Caucasus area due to improper preservation and preparation of food). These cases occur in the target locations but also in other cities in the region and across the Atlantic due to international travel. In parallel, the chatter on terrorist social websites increases and threatening messages are posted online and carried by major news agencies.

The TTX MOVE 2 occurred at D+4 days (05 February 2010) when hundreds of victims and dozens of fatalities in more than 10 countries baffle the epidemiologists trying to understand how botulism turned contagious. The media and public anxiety were also brought into discussions at this point. Apart from the disease spread, the law enforcement acting on a tip, discovers the clandestine biological facilities and a wealth of on-site evidence to be further collected and analyzed. The roles of WHO,

Interpol, and NATO in responding to international assistance requests were explored and discussed.

The TTX MOVE 3 at D +14 (15 February 2010) describes hundreds of fatalities around the world in more than 20 countries and multiple requests to international organizations for assistance, national considerations on closing borders and quarantine measures, WHO coordination of international public health response, NATO's resources for emergency assistance, and Interpol's tools for dissemination of information and assistance to law enforcement activities. Additional topics for discussion were related to sharing the genomic data of the genetically-engineered adenovirus (in the TTX scenario that data were first obtained by CDC); a potential request for consultation with BWC Member States under Article V of the Convention; and the UN Secretary General's Mechanism for Investigation of Alleged Use of CBTW. On a positive note, the therapeutic combination of anti-virals and anti-toxin seemed successful in containing the epidemic and saving lives worldwide.

The questions on each of the three TTX moves addressed public health, law enforcement, and intelligence courses of action as well as the availability of resources at the national level (i.e. medical countermeasures and personnel surge, personnel protective equipment for sensitive site exploitation, laboratory capabilities, analyzing biological crime scene evidence, etc.). The TTX explored the national perspectives of seven countries (Georgia, Armenia, Azerbaijan, Kazakhstan, Moldova, Romania, and US).

After the TTX wrap-up and plenary discussions (on lessons learned, comments, key points, and recommendations from participants and TTX facilitators and coordinators), the plenary session continued with three presentations as follows.

Dr. Adrian Baciu, Police Chief Commissioner and Chief, Department of Order and Public Safety, Romanian Ministry of Interior and Administration, provided a "boots on the ground" perspective on the law enforcement, reactive and proactive, scalable responses to biological threats, the incident command structure, and Romanian specialized first-response units. In Romania, the governmental institutions which comprise the *National System for Preventing and Combating Terrorism* (established in 2004) have memoranda of agreement in place to delineate their responsibilities and the framework of collective action. A *Biological Emergency Support Team* (BEST) was established in 2008; it consists of technical experts from the participating governmental agencies and its role is to offer, upon request, scientific advice and guidance on consequence management operations to the Incident Commander as well as facilitating the information exchange between agencies involved in response.

Professor Dr. Marian Neagu from the Cantacuzino Institute, Romanian Ministry of Health, raised several "food for thought" issues with regard to the balance required to be maintained between Article III and Article X of the BWC in order to secure the role and relevance of the BWC as a nonproliferation regime. Of note, Article III imposes an obligation on each BWC Member State not "*in any way*" to assist any country in pursuing BW activities prohibited by the Convention. Article X however, mandates that "*the provisions of the Convention should not be used to impose restrictions and/or limitations*" on transfers for peaceful purposes. Certain radical countries are criticizing other countries' national export control systems (established

to restrict transfers to proliferant countries or terrorist groups) and call them discriminatory and contrary to the BWC legal obligations under Article X to “*facilitate...the fullest possible exchange*” of biological equipment, materials, and technology.

Mr. Scott Spence, JD, concluded the proceedings with an overview of services provided by VERTIC, free of charge and at the request of national authorities, on reviewing the requesting country’s existing legislation for implementation of BWC and UNSCR 1540, as well as assistance services on drafting legislation on biosafety and biosecurity and additional obligations arising from BWC and UNSCR 1540.

TTX LESSONS LEARNED

Decision Making:

- While the participants addressed the issues at hand, some were missing the challenges associated with placing the scenario in a context (e.g. additional cases of patients with respiratory symptoms in the “flu season” may likely not trigger an immediate concern)
- Public health will notify the Ministry of Internal Affairs or the Ministry of Emergency Situations (notifications up the chain to the respective National Security Councils were discussed) when suspicions of a deliberate incident arose
- Media pressure will play a role in the decision-making process
- Dr. Sahakyan stressed the importance of isolation/quarantine of potentially infectious patients as the means of protecting the community at large
- Additional discussions are needed as well as more focus on various legal and cultural approaches to quarantine and possible effects of such national differences on international health security
- Sharing public health data which are connected to an ongoing criminal investigation is a challenge (e.g. CDC considered consultations with the FBI on risk/benefit before decision-making)
- Sharing public health data (in the scenario TTX case, sharing the genomic sequence of the genetically engineered virus) with vaccine and diagnostics manufacturers and researchers (civilian and/or military) is also a challenging issue when the data are connected to an ongoing criminal investigation
- The gaps in sharing information between public health and law enforcement will most likely affect the decision-making process of each community; since real-world experience in practicing such decision-making does not come often, there is a strong need for more joint training (also including other relevant national authorities involved in consequence management)
- The effect of a military casualty on the US military actions was not explored in depth (since the relevant DOD expertise was not available at the TTX); however, since the Soldier in question was comatose, the participants agreed that since an interview could not be conducted, the potential source of exposure could not be determined
- Dr. Aikimbayev raised the issue of continued vigilance and investigation after the discovery of the clandestine facilities since terrorists may have additional locations for biological agent production
 - This is an interesting issue that could be covered in other exercises: the decision-making process on “declaring victory” and stand-down as well as the ability of national systems to cope with what the former US Navy Secretary Richard Danzig called “*the reload phenomenon*” (this refers to the terrorists’ ability to reload and perpetrate additional attacks while the national capabilities on dealing with the consequences may be already exhausted).

National Response Plans:

- Activation of respective National Response Plans was agreed upon but the timing of such activation based on the scenario events was not an unanimous agreement among participants
- Countries have strategic stockpiles of medical countermeasures but the consensus was that they may not be sufficient in a mass casualty event
- Mental health issues or long term consequences of bioterrorism were not specifically spelled out in the National Response Plans
- Kazakhstan – the only country reporting active outreach on mental health in disasters (a workshop for teachers was organized in the past to familiarize them with this issue; mental health specialists were involved in the national H1N1 response)
- Law enforcement activities (and those of other relevant organizations) may continue even after the public health emergency has been mitigated

Risk/Intelligence Communication:

- Communications within the public health system at the national level (i.e. posting general health alerts and notices) were well established
- Country representatives pointed out that most likely their respective National Emergency Committees would be releasing certain public messages through media (i.e. press releases or addresses on national television).
- Communicating with the public or other organizations involved in response about the uncertainties associated with a biological incident in progress requires additional training
- The partnership between the scientific community and law enforcement is not common but possible and highly desirable at the national and international level when assessing biological threats
- The issue of whether joint public health-law enforcement communications to media, public, etc. were required (or if another national authority is in charge of such communications)- was discussed; most participants placed the responsibility of quelling public panic and addressing the media with national public health authorities
- One country representative stated that it will consider roundtable discussions with media on current events (the sanitary epidemic station will be in charge of organizing such discussions)
- Media may be a source of medical- or law enforcement-relevant information; participants noted that in the current “information age” events may be more difficult to conceal than in the past and internet postings may reveal information not formally released by national authorities
- Some information may not be shared internationally due to limitations in national laws or national security/other concerns
- The role of the Ministry of Foreign Affairs (MFA) in international communications and requests for international assistance should be clarified in future exercises (optimally by involving MFA representatives in the TTXs)
- There is no mandatory requirement for the national law enforcement to pass on information to Interpol in case of potential terrorist events even though such events may potentially be of international concern
 - “*Food for thought*” issue: could the law enforcement apply the example of revised WHO IHRs notifications? That is, pass information to Interpol on “*law enforcement events of potential international*

concern”(LEIC) and let Interpol decide their relevance to the international community? In a positive determination, the information would be shared with all member states; if Interpol deems that the information has no international relevance, it would then file it in a database with no other action required

- NATO’s capabilities include a Terrorist Threat Intelligence Unit reporting daily to the Secretary General; however, NATO may be limited by political constraints when it comes to sharing intelligence/threat information with Partner countries.
- IHR notifications were well understood and considered during the TTX
- The H1N1 pandemic taught very good lessons in emergency preparedness and response
- While national authorities may decide unilaterally to implement population movement controls including quarantine and border/airport closing, participants were reminded that the WHO Director General’s determination of a “*public health event of international concern*” (PHEIC) will also come with recommendations on mitigation strategies

Assets:

- Not all countries have specialized law enforcement units for collecting, transporting, and testing biological crime scene samples (most likely they will rely on public health system assets)
- The capabilities offered by DTRA/TADR were discussed as being relevant in providing the required capability for forensic biological sample collection, transportation, and testing
- Symptomatology will figure prominently in medical diagnosis; it was unclear whether national lab testing capabilities (which in the case of botulinum toxin may be limited, challenging, and time consuming) will affect the flow of IHR notifications and sharing information with WHO, or they will constitute the impetus for requiring technical assistance from WHO. Even the adenovirus detection (virus culture) may take longer than the course of disease as described in the TTX scenario
- Interpol’s biocrimes database and the UN’s Biological Incident Database (mandated by the UN Counter-Terrorism Strategy and envisioned to complement Interpol’s database) were discussed but the exact usefulness and applicability of these resources were not clear.
- Issues related to first-responders (i.e. their capabilities in terms of equipment, training, etc) and the provisions of national systems in ensuring the first responders were protected, were of interest to participants for further exploration.

International Coordination

- There is no formal MOU or detailed agreement on sharing information between WHO and Interpol.
- There seemed to be gaps in integration and “connecting the dots” at the international level between the law enforcement and public health data

- Since WHO cannot process or receive formal law enforcement information, the task of “connecting the dots” falls onto Interpol and depends on the procedures/agreements in place for sharing information with WHO.
- The process of updating the Secretary-General’s Mechanism (SGM) for Investigation of Alleged Use of Chemical, Biological or Toxin Weapons (which requires interaction among various international organizations) may be impeded if a formal MOU is not in place for information exchange between WHO and Interpol
- Countries may prefer to first seek assistance from neighboring countries before contacting IGOs in that regard
- NATO has agreements in place with Partner countries to offer disaster assistance via the Euro-Atlantic Disaster Response Coordination Center (EADRCC)
- Interpol is a resource for assistance to national law enforcement (database check, threat information sharing/notices, internet monitoring, etc)
- Import/export regulations may have to be reviewed in the context of receiving/offering international assistance in public health emergencies

Anti-terrorism Legislation:

- While a thorough review of each participant country’s legislation was not undertaken, it was assumed that all countries represented in the TTX pursued the implementation of UNSCR 1540 which requires all UN member states to enact national legislation to prevent and criminalize activities of non-state actors who seek to acquire and proliferate WMDs.
 - In passing UNSCR 1540, the UN Security Council recognized that the primary responsibility for fighting WMD proliferation and potential terrorist use of WMD rests with UN member states themselves. However, the states should also realize the domestic consequences associated with a weak and porous nonproliferation framework.
 - Note: the TTX References provided in electronic version to participants also included the legislation references as reported by the Southern Caucasus countries to the 1540 Committee.

CONCLUSION AND FOLLOW-UP ACTIONS

The Southern Caucasus Workshop on *Public Health, Security, and Law Enforcement Partnership in Bio-Incident Pre-Planning and Response*, and associated *Southern Caucasus BioShield 2010* TTX were held in Tbilisi, Georgia, 11-12 May 2010, pursuant to Georgia's request to the US Government for assistance on assessing the national (inter-sectoral), regional, and international unity of effort in response to potential biological incidents, and to prepare for the 2010 Biological Weapons Convention (BWC) meetings (which will address and promote common understanding and effective action on the provision of assistance and coordination with relevant organizations upon request by any State Party in the case of alleged use of biological weapons).

The workshop was funded by the US Department of Defense (DOD), Defense Threat Reduction Agency (DTRA). Its coordination and execution were a joint effort of DOD/DTRA; US Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response (HHS/ASPR); and Georgia's Ministry of Labour, Health, and Social Affairs, National Center for Disease Control and Public Health (MoLHSA/NCDC).

About 80 participants were in attendance, from inter-governmental organizations (WHO, INTERPOL, NATO), US Government [DOD/DTRA, HHS (ASPR and CDC), Department of Energy (Sandia National Laboratories), Department of State [US Embassy in Georgia and the Bureau of Verification, Implementation, and Compliance (VCI), Office of Biological Weapons Affairs (BW)], and the Department of Justice/FBI], and from public health, security, and law enforcement organizations from Georgia, Azerbaijan, Armenia, Kazakhstan, Moldova, and Romania. NGOs such as VERTIC, Bechtel, and Global Green USA were also represented at the workshop.

The workshop achieved its main goals of:

- Fostering improved understanding of the respective procedures and requirements of public health, security, and law enforcement communities in response to a biological incident; emphasizing the concept that information exchange in the early stages of a biological incident is critical to effectively apprehending the potential perpetrators and containing the outbreak; and enhancing the inter-sectoral effectiveness in pre-planning and response at the national and regional/international level (as a direct result of the quality and exceptional delivery of informational briefings by experts in the field and the dynamic engagement of all participants in the TTX);
- Enhancing understanding of intergovernmental organizations' role and their interaction in the process of sharing information and coordinating response (due to the outstanding support received from the representatives of WHO-EURO, Interpol, and NATO WMD Center);
- Reviewing existing legal and regulatory infrastructure of national measures consistent with the obligations under the BWC, UNSCR 1540, and WHO IHRs to deter, prevent, or respond to biological incidents or threats (due to the extraordinary collegial spirit and generosity of the representatives of WHO,

Interpol, NATO, VERTIC, and Romanian Police who have been asked to fill in for the UNODA and BWC ISU experts who had to cancel their travel mid-way due to the Icelandic volcano eruption).

A joint Georgia-US presentation of the workshop concept and lessons learned will be presented at the BWC Meeting of Experts, 23-27 August 2010, in Geneva, Switzerland. This After-Action Report will be distributed to the BWC community at the August meeting upon clearance for public release by workshop participants.



Additional discussions will be pursued with regard to the requests from Georgia (for a follow-up workshop in 2011 to also cover operational issues and specialized assets required for response to biological incidents), and similar training events to be organized in Kazakhstan and Moldova (contingent on funding sources).

This workshop was a true example of international partnership and commitment of various stakeholder communities to improve regional and global partnerships in preparedness and response to biological incidents, whether natural, accidental, or deliberate in nature.

Last but not least, the workshop embodied the spirit of science diplomacy and transnational unity of mission against biological threats regardless of regional disagreements or policy differences on other issues. The shared interests in protecting global health security created a foundation of trust and collegial working relationship across diverse fields of expertise in our quest to find solutions to mitigating common threats.

APPENDIX A – WORKSHOP AGENDA

- Southern Caucasus Workshop -
*Public Health, Security, and Law Enforcement Partnership
in Bio-Incident Pre-Planning and Response*
Sheraton Metechi Palace Hotel, Tbilisi, Georgia, 11-12 May, 2010



**CO-SPONSORED BY THE
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Strength is in unity

TUESDAY, 11 MAY 2010

8:00 am

Registration

9:00 am

Welcome and Opening Remarks

(speakers' introduction: Dana Perkins, US Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response)

- Nikoloz Pruidze, Deputy Minister of Labour, Health and Social Affairs (MoLHSA), Georgia (10 min)

- Kent Logsdon, Deputy Chief of Mission, US Embassy, Georgia (10min)
- Amiran Gamkrelidze – Director, WHO-Georgia Office (10 min)
- ~~Franz Kolar – UN Office of Disarmament Affairs (UNODA) – (10 min)~~ [cancelled due to Icelandic volcano eruption and travel delays]

9:30 am

Public Health Security: A Multi-Layered System of Defense (International)

This session will focus on the role of international organizations in, *inter alia*, information sharing on public health events of international concern, early detection and notification, BW nonproliferation, UN Secretary General’s Investigative Mechanism for alleged use of CBW, coordination of assistance for consequence management.

- WHO - Roberta Andraghetti - *Implementation of the International Health Regulations (IHR) in the WHO European Region (15 min)*
- INTERPOL – Joris De Baerdemaeker – *Bioterrorism Prevention Programme & INTERPOL’s tools and resources in case of a bioincident (15 min)*
- NATO WMD Center - Axel Angely – *NATO’s Non-Proliferation Efforts (15 min)*
- ~~BWC Implementation Support Unit – Ngoc Phuong Huynh (15 min)~~ [cancelled due to Icelandic volcano eruption and travel delays]
- VERTIC - Scott Spence - *Assistance with BWC/UNSCR 1540 implementation (15 min)*

Q & A: 11:00 - 11:15 am

11:15 am

BREAK

11:30 am

Public Health Security: A Multi-Layered System of Defense (Southern Caucasus)

This session will address the national response frameworks in Georgia, Armenia, and Azerbaijan. Issues to be addressed include, *inter alia*: national plans and

responsible authorities for bio incident consequence management, exercises/training in support of national plans, whole-of-government and regional collaboration approaches and/or plans for national/international information sharing and notification, epidemiological/law enforcement investigations, consequence management, and coordination of assistance.

(speakers' introduction by: Lela Bakanidze, Georgia Ministry of Health, National Center for Disease Control and Public Health)

- *Surveillance and Response on Communicable Diseases in Georgia* - Paata Imnadze (30 min)
- *Legal Basis, Structural, Sector and Inter – Sector Possibilities of Control, Regulation and Adequate Response on Biological Threat in the Republic of Armenia Today*- Levon Sahakyan (30 min)
- *Some Aspects of Cholera in Azerbaijan*- Shair Gurbanov (30 min)

Q & A: 13:00- 13:15

13:15

LUNCH

14:30

Epidemiological Surveillance and Investigation

This session will focus on the capacities and competencies needed to rapidly conduct epidemiological investigations. It includes deliberate and naturally occurring exposure and disease detection, rapid implementation of active surveillance, maintenance of ongoing surveillance activities, epidemiological investigation, analysis, and information sharing. Emphasis will be placed on the relevance of competencies acquired via the *Southern Caucasus Field Epidemiology and Laboratory Training Program (SCFELTP)* and capacity built under the *Biological Threat Reduction Program's Threat Agent Detection and Response (TADR)*, as well as on public health and law enforcement cooperation to identify the biological agent, prevent the spread of the disease, prevent public panic, and apprehend those responsible.

- CDC (*SCFELTP*)- Ed Maes (HHS/CDC) (30 min)
- DTRA (*TADR*) – Casel J. Nutter (DTRA) (30 min)

Break: 15:30-15:45

- HHS/ASPR (*Whole-of-Government Approach to Consequence Management of*

Biological Incidents and Hazards) – Dana Perkins (15 min)

- CDC/FBI (*Pursuing a Joint Strategy: Public Health-Law Enforcement*) – Konrad Hayashi (HHS/CDC) and Kristine Beardsley (FBI) (60 min)

Q & A: 17:00- 17:30

17:30

TTX Logistics

Brief overview of TTX scenario and planned execution, break-out groups, identification of TTX facilitators and background materials.

- TTX Coordinators: Dana Perkins (US HHS/ASPR) and Lela Bakanidze (Georgia MoLHSA/NCDC)
- TTX Facilitators: Konrad Hayashi (HHS/CDC), Ed Maes (HHS/CDC), Kristine Beardsley (FBI), Roberta Andraghetti (WHO), Joris De Baerdemaeker (INTERPOL), Adrian Baciú (Romania MAI/Police), Carl Prober (State Department, VCI/BW), Carlos Salazar (DOE/Sandia)

Adjournment: 18:00

19.30

Hosted Reception – Sheraton Metechi Palace Hotel

WEDNESDAY, 12 MAY 2010

9:00 am

Biological Incident - Case Study / TTX

Public health, security, and law enforcement officials will work jointly through a Southern Caucasus-based bio incident scenario.

Break: 11:15-11:30

13:00

LUNCH

14:00

Biological Incident - Case Study / TTX (cont'd)

Wrap-up and plenary discussions (lessons learned, comments/recommendations from participants and observers).

- Romania/MAI – Adrian Baciú – *Tactical and Strategic Response in Biological Cases* (15 min)
- Romania/MOH- Marian Neguț - *Scientific and technical exchanges-potential impact on non proliferation regimes* (15 min)
- VERTIC - Scott Spence- *National Implementing Measures Programme* (10 min)

Break: 16:40-17:00

17:00

TTX and Workshop Conclusion

Summarize key points and describe path forward (i.e. timeline for drafting and seeking comments on the workshop summary document, workshop overview / presentation at the Biological Weapons Convention Meeting of Experts, 23-27 August 2010, Geneva, Switzerland).

Adjournment: 18:00

APPENDIX B – LIST OF PARTICIPANTS

- Southern Caucasus Workshop -



*Public Health, Security, and Law Enforcement Partners
in Bio-Incident Pre-Planning and Response*



Sheraton Metechi Palace Hotel, Tbilisi, Georgia, 11-12 May, 2010

LIST OF PARTICIPANTS

Inter-Governmental Organizations

ORGANIZATION	REPRESENTATIVE(S)
UNODA	Franz Kolar (canceled)
WHO-EURO	Roberta Andraghetti
WHO-Georgia	Giorgi Kurtsikashvili Amiran Gamkrelidze Rusudan Klimiashvili
BWC ISU	Ngoc Phuong Huynh (canceled)
INTERPOL	Joris De Baerdemaeker Ahmed Al Sabri
NATO WMDC	Axel Angely

Georgia

ORGANIZATION	REPRESENTATIVE(S)
MoLHSA	Koka Pruidze, DEPUTY MINISTER Mzia Jokhidze Zurab Utiashvili Eka Paatashvili
Sanitary Control	Zurab Kikalia, Head
Parliament of Georgia, Health Committee	Otar Toidze
MFA	Vasil Rubashvili
GRDF	Nikoloz Burdiashvili
National Security Council	Mikheil Kekenadze
MOD	Elza Metopishvili
MoAg, Lab	Tinatin Onashvili
Lab Coordination Council	Anna Zhvania
Academy of Science	Giorgi Kvesitadze
Office of State Minister for Euro-Atlantic Integration	Nino Ebralidze
MoLHSA/Institute of Physiology	Revaz Solomonias
MoLHSA/NCDC	Paata Imnadze, Director Lela Bakanidze Shota Tsanova

	<p>Nino Trapaidze</p> <p>Kote Gvetadze</p> <p>Nikoloz Tsertsvadze</p> <p>Khatuna Zakhashvili</p> <p>Gela Mgeladze</p> <p>Temur Tevzadze</p> <p>Neli Chakvetadze</p> <p>Medea Eloshvili</p> <p>Anna Kasradze</p> <p>Sopho Datukishvili</p> <p>Mariam Natsvlishvili</p> <p>Keti Napireli</p> <p>Nia Giuashvili</p>
Eliava Institute of Bacteriophage	Revaz Adamia
MoIA	<p>Archil Pavlenishvili</p> <p>Malkhaz Lagurashvili</p> <p>Lasha Vashakhmadze</p> <p>Nugzar Gugeshashvili</p>
MEnvironP	<p>Jumber Mamasakhlisi</p> <p>Lia Chelidze</p> <p>Giorgi Nabakhtiani</p>

National Service, FSVPPNS, MOA	Maia Metreveli Koba Dzamashvili
MEduSci	Tamar Urushadze Tinatin Sadunishvili Rima Beriashvili
Armenia	
ORGANIZATION	REPRESENTATIVE(S)
MOH	Levon Sahakyan Artur Manukyan Manvel Manrikyan
MEmergencySit	Armen Movsisyan
Azerbaijan	
ORGANIZATION	REPRESENTATIVE(S)
Republic Anti- Plague Station	Shair Gurbanov
MoTransportation	Ramiz Babaev
Kazakhstan	
ORGANIZATION	REPRESENTATIVE(S)
MoH/Anti-Plague	Alim Aikimbayev

Moldova

ORGANIZATION	REPRESENTATIVE(S)
MoH	Stela Gheorghiuță

Romania

ORGANIZATION	REPRESENTATIVE(S)
MoH/ Cantacuzino Institute	Marian Neaguț
MAI/Police	Adrian Baci

USA

ORGANIZATION	REPRESENTATIVE(S)
US Embassy, Tbilisi	Kent Logsdon, DCM
DOS/VCI/BW	Carl Prober
DOE/Sandia	Carlos Salazar
HHS/ASPR	Dana Perkins
HHS/CDC	Konrad Hayashi Edmond Maes Thomas Rush Marika Geleishvili Diane Gross

FBI/WMDD	Kris Beardsley Kevin Theede
DTRA-Tbilisi	Cassel Nutter Paata Enukidze Jonathan Sachar
DTRA/TRSC	Jen Braswell Douglas Osbourne Nino Kharashvili Mari Lursmanashvili
Representatives of Non-Governmental Organizations	
ORGANIZATION	REPRESENTATIVE(S)
VERTIC	Scott Spence
GLOBAL GREEN USA	Marina Voronova
BECHTEL	Tamuna Zardiashvili Magda Metreveli
Interpreters	
Maia Zaridze_Eng ↔ Geo	
Tamriko Bakuradze_Eng ↔ Ru	
Tamuna Neparidze_Eng ↔ Geo	
Marina Useinashvili_Eng ↔ Ru	
Secretariat	
Levan Zandukeli	
Maka Tsomaia	
Natia Devdariani	

APPENDIX C – WORKSHOP SURVEY

- Southern Caucasus Workshop -



Public Health, Security, and Law Enforcement Partnership
in Bio-Incident Pre-Planning and Response



Sheraton Metechi Palace Hotel, Tbilisi, Georgia, 11-12 May, 2010

WORKSHOP PARTICIPANT SURVEY

Thank you for completing the following survey. This evaluation is designed to collect your feedback about the Southern Caucasus workshop and the *BioShield 2010* exercise and how they contributed to your understanding of the emergency preparedness plan.

Confidentiality Statement

Your responses are confidential and will be analyzed collectively with other participants' responses. Aggregate data are used to provide the workshop/exercise organizers with feedback regarding the quality of this training event and the benefits to the participants.

Directions

Please mark only one answer for each question unless otherwise indicated.

1. What type of organization or agency do you work for?

- Government health institution (PH)
- National law enforcement (LE)
- Military (Mil)
- Private (non-governmental) industry or business (NGO)
- Community-based or nonprofit organization
- Educational Institution
- Inter-governmental organization (IGO)
- Other, please specify:

2. Do you think that biological weapons present a ___major, ___minor, or ___no threat to your country?

3. Do you think there is benefit in fostering and improving the dialogue and common

training between public health and law enforcement?

YES _____

NO _____

NO OPINION _____

4. Do you think there is benefit in fostering a relationship, improving communication and building trust between the security and scientific communities ?

5. How do you evaluate your current training in preventing and/or responding to a bioterrorism incident?

I didn't have any training on this subject before _____

Sufficient to help me do a good job at work _____

Not sufficient, I need more training _____

6. Should individual governments require facilities to institute oversight of experiments that involve genetic engineering of highly infectious pathogens?

YES _____

NO _____

NO OPINION _____

7. Should individuals engaged in the life sciences and related fields (e.g., microbiology, biochemistry) adopt a professional code that highlights the dual-purpose use of scientific knowledge, condemns biological warfare, and specifically encourages or requires ethical conduct to prevent the deliberate malevolent use of highly infectious pathogens?

YES _____

NO _____

NO OPINION _____

8. The following questions relate to the workshop overall. Please check the box that best represents your level of agreement with the statement.

	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A
1. The workshop was well organized.					
2. The exercises was well facilitated					
3. The reference materials were very useful					
4. The exercise met the stated objectives.					
5. The workshop and exercise were relevant to my job and my role in an emergency.					
6. The exercise helped me to integrate and practice the skills and knowledge I learned in prior trainings.					
7. Participating in the workshop & exercise increased my understanding of preparedness and response to bioterrorism					
8. I would like to participate in more training events of this kind					

9. The length of the workshop (including the exercise) was:

Too short _____

About right _____

Too long _____

10. Please rate this training in terms of its overall usefulness to you and your agency.

Excellent _____

Very Good _____

Good _____

Fair _____

Poor _____

11. How could the workshop and/or exercise have been improved?



2010



Strength is in unity