



## **Guide for Viewers and Facilitators**

*Atlantic Storm* was created and presented by the Center for Biosecurity of the University of Pittsburgh Medical Center (UPMC), the Center for Transatlantic Relations of the Johns Hopkins University, and the Transatlantic Biosecurity Network. The exercise was funded by the Alfred P. Sloan Foundation, the German Marshall Fund of the United States, and the Nuclear Threat Initiative.

[www.atlantic-storm.org](http://www.atlantic-storm.org)

## PURPOSE OF THIS GUIDE

This guide outlines the fundamental challenges posed by global biosecurity crises and frames questions to help facilitators or viewers of *Atlantic Storm Interactive* focus on the major issues raised throughout the *Atlantic Storm* exercise. The guide contains the following sections:

- A brief description of the structure of both the *Atlantic Storm* exercise and this interactive presentation
- An outline of the key international biosecurity challenges highlighted by *Atlantic Storm*
- A timeline summarizing major events that occurred during the exercise
- Suggested questions for discussion at each time point
- High-level lessons of the exercise

## INTRODUCTION TO ATLANTIC STORM

*Atlantic Storm* was a bioterrorism table-top exercise convened in Washington, DC, on January 14, 2005 ([www.atlantic-storm.org](http://www.atlantic-storm.org)). The *Atlantic Storm* exercise was held in real-time, with the world's geopolitical context at that time as a backdrop. The exercise was based on a fictitious scenario that portrayed a summit of transatlantic leaders forced to respond to a bioterrorist attack.

The participants were presented with reports of smallpox cases in Germany, the Netherlands, Sweden, Turkey, and, ultimately, other countries of the EU and North America. During the 6-hour summit meeting, they wrestled with the enormity and rapid pace of the emerging epidemic, the tension between domestic politics and international relations, the challenge of controlling the spread of disease across borders, and an international shortage of critical resources such as vaccine. The exercise highlighted a series of international biosecurity challenges that will attend serious international epidemics, whether the result of a natural outbreak or a bioterrorist attack.

*Atlantic Storm Interactive* is a web-based, multimedia presentation that takes the briefings, updates, simulated newscasts, and other materials that were prepared for the exercise and integrates them with excerpts from the actual discussions of the exercise participants. This presentation has been designed to allow viewers to place themselves in the role of one of the decision-making participants or in the role of one of the event's observers. This *Guide for Viewers and Facilitators* suggests ways to use this presentation and poses questions to help guide discussion of biosecurity challenges that were highlighted by the exercise.

As the presentation unfolds, please keep in mind that, while the exercise scenario was based on the events that might follow a bioterrorist attack with smallpox, *Atlantic Storm* was not about smallpox *per se*. Rather, the exercise was designed to highlight the numerous complicated global challenges that would arise in the event of any large-scale epidemic of infectious disease, whether caused by a bioterrorist attack or a naturally occurring outbreak. Excerpts from the participants' discussions have been chosen specifically to convey the central themes that emerged in response to those challenges.

A scenario based on a smallpox outbreak is not a worst case scenario, given that most countries have smallpox response plans and that there is an existing global stockpile of more than 700 million doses of an effective vaccine. Other biosecurity threats, such as a naturally occurring influenza pandemic, could have even more devastating consequences.

Therefore, as you use *Atlantic Storm Interactive*, we encourage you to consider the ways in which the lessons and conclusions to be derived from *Atlantic Storm* should also inform plans for responding to all large-scale epidemics, regardless of pathogen or cause.

This re-telling of *Atlantic Storm* is particularly instructive now, as the U.S. and other countries work to prepare for a possible human influenza pandemic.

## EXERCISE STRUCTURE

The exercise comprised several sessions of unscripted discussions among the summit participants and a mock press conference and concluded with an out-of-character moderated discussion in which the participants reflected on the day's events. The summit participants received information about the unfolding crisis via fictional *Global News Network* broadcasts, memos from national aides, and briefings from summit staff. Exercise observers included more than 100 government officials and nongovernmental experts from both sides of the Atlantic. None of the exercise participants received compensation, apart from travel expenses.

## SMALLPOX FACTS

Smallpox, a disease caused by the virus *Variola Major*, kills 30% of those infected. It spreads between people who are in close contact, creating a self-propagating epidemic. There is no effective treatment, but there is a vaccine. If administered before a person is infected, the vaccine will prevent infection. If administered within 4 days after exposure, the vaccine can reduce the severity of the disease.

Smallpox was declared eradicated from the world in 1980, at which point vaccination was discontinued. Many of the people who were vaccinated before 1980 no longer have immunity; as a result, it is estimated that 75% of the world's population would be susceptible to infection with smallpox.

## HOW THE ATLANTIC STORM INTERACTIVE PRESENTATION WORKS

The interactive presentation is organized into points on a timeline representing the real-time progression of the *Atlantic Storm* exercise. The presentation is not a video documentary of the exercise, which lasted a full day. Instead, a narrator tells the story of the day, describing the major developments that occurred at each time point and the progression of the participants' deliberations. Excerpts of the participants' discussion are also presented. This guide follows the timeline and provides questions for discussion that are directly related to five fundamental international biosecurity challenges described on page 3. The interactive presentation is flexible. Viewers may choose to move through the entire presentation from start to finish, or they may pause at specific time points to discuss issues raised by events.

We hope that the questions in this guide will serve as a jumping off point for rich and lively discussions of the specific events and developments of *Atlantic Storm*. Even more, we hope that discussion will then turn to steps that can and should be taken internationally, nationally, and locally to prepare for and respond to a biosecurity crisis.

### Who Might Benefit from this Guide

- Students, Teachers, Researchers, and Practitioners of:
  - Public Health, Medicine, International Relations, Political Science, National Security, etc.
- Government Officials in Europe, North America, and Globally with responsibility for:
  - Foreign Affairs, Health, Defense, Interior/Homeland Security, etc.
- Executives from Private Sector Businesses with Interests in:
  - Pharmaceuticals, Financial Services, Airlines, International Logistics, Manufacturing, etc.

## SUMMARY OF INTERNATIONAL BIOSECURITY CHALLENGES

Detailed below are five strategic challenges that will arise and perhaps dominate efforts to respond to any international biosecurity crisis involving a widespread outbreak of an infectious disease, regardless of source or pathogen. Whereas the *Atlantic Storm* exercise was based on one plausible scenario, an attack with smallpox, which shifted the emphasis of discussion and negotiation to issues surrounding vaccine, a different type of outbreak might shift the focus of world leaders to a different challenge. Nevertheless, the fundamental demands on the international community will be the same, whether faced with pandemic flu, an outbreak of a newly emerged pathogen such as SARS, or a bioterrorist attack with one of many possible bioagents.

While issues related to national sovereignty and how countries interact on the global stage are at the core of the *Atlantic Storm* exercise, it is also true that many of these same challenges would be relevant to how states or provinces within a country might interact when faced with a public health emergency. Such issues are particularly relevant in the U.S. today, given that the U.S. Secretary of Health and Human Services has repeatedly and emphatically warned American states, cities, and towns that they cannot rely on the federal government to assist them if a flu pandemic were to occur.<sup>1</sup>

- 1. Managing shortages of medicines and vaccines:** Given today's medical, public health, and drug development systems, shortages are inevitable and will severely limit options available to leaders for controlling the spread of disease.
  - There will be "haves" and "have nots" with respect to medicines, vaccines, and other medical resources. What is the best approach to addressing the needs of both groups?
- 2. Controlling the spread of disease:** A contagious disease outbreak must be slowed or stopped before it causes not only illness and death but also social, political, and economic destabilization.
  - What pressures will leaders face as they work to control the spread of disease within their borders, and how will those actions affect other countries?
  - If medicines, vaccines, or other medical resources are limited or even nonexistent, what options will leaders have to stop the spread of disease, and what are the potential consequences of those actions?
- 3. Balancing national and international responsibilities:** While acknowledging their role in the larger global community, national leaders will view their primary responsibility to be the protection of their own citizens first.
  - How will leaders balance these responsibilities, given that epidemics do not recognize borders?
  - Do NATO allies or EU Member States have special responsibilities to each other in this type of crisis?
- 4. Determining the role of international organizations in biosecurity:** Most pre-existing international organizations (e.g., NATO, UN) were designed to cope with traditional threats to international security, which generally did not include threats to biosecurity.
  - What is the appropriate role of these international organizations during a biosecurity crisis?
  - The World Health Organization (WHO) is the primary candidate to serve as an international coordinator and "honest broker" during a biosecurity crisis, but – given current funding levels and organization – is the WHO capable of filling this role?
- 5. Earning and maintaining public confidence and involvement:** In the midst of a biosecurity crisis, the public can be a significant asset to authorities.
  - How will leaders earn, and then maintain, the public's confidence and cooperation in the face of uncertainty and fear?

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<sup>1</sup> "Any community that fails to prepare with the expectation that the federal government will come to the rescue will be tragically wrong," Secretary Leavitt told an audience at the Maryland Pandemic Influenza Summit in March 2006. In: Rivera R., "Prepare for Pandemic, Localities Are Warned," *Washington Post*, March 25, 2006.

**BIOSECURITY CHALLENGES HIGHLIGHTED IN ATLANTIC STORM:  
A TIMELINE WITH DISCUSSION QUESTIONS**

Timeline corresponds with timepoints in the Flash presentation.

**9:05 a.m.**

The U.S. President underscores the collective international implications of a large-scale epidemic of infectious disease and cautions her colleagues not to act hastily as early information in such a crisis is often incorrect and/or incomplete. Concerns about maintaining public confidence, balancing national and international responsibilities, and controlling the spread of disease arise immediately.

**Suggested discussion questions (refer to challenges 2, 3, and 5)**

1. Given all of the critical issues that will have to be addressed in the face of an international epidemic of infectious disease, regardless of source, how should world leaders prioritize the challenges they must address?
2. In the event of a human flu pandemic, would all challenges be equally pressing? What would leaders have to grapple with first?

**9:25 a.m.**

The summit leaders are concerned about how to maintain public confidence, which they believe will be crucial to controlling the spread of disease. However, given the revelation that the bioterrorists are a splinter group of Islamic extremists, stigmatization of Muslims and related civil unrest could erode public confidence and cohesion. The leaders must find a balance between precautionary actions that will truly help and inappropriate actions that may undermine the public's confidence and trust.

**Suggested discussion questions (refer to challenges 2 and 5)**

1. Given the limited and sometimes incorrect information available during a crisis, how can international leaders maintain the confidence of their citizens at home while also coordinating messages with their neighbors and allies?
2. In the event of a bioterrorist attack or a natural epidemic, it is possible that particular ethnic, regional, or economic groups could be inappropriately identified as the "source" of the disease and stigmatized as a result. For example, this happened to Chinese people around the world during the 2003 SARS epidemic. In what ways would such stigmatization impede response to the crisis? What could be done to prevent this from happening?
3. The specific epidemiologic information (e.g., numbers and locations of reported cases of smallpox) provided during this exercise was probably far more precise than any that would be available during a real-world outbreak. How will a lack of clear or certain data, or gaps in data, effect leaders' decision making, public communications, and other response activities?

**9:40 a.m.**

The limited global supply of smallpox vaccine and the inability to quickly manufacture more has become clear, highlighting the fact that there are "have" and "have not" countries with respect to biosecurity preparedness. The Director General of the WHO confirms the shortage of vaccine, noting that while countries have discussed sharing vaccine prior to this crisis, none have made concrete commitments. Also noted is the fact that while the decision to use vaccine is a national decision, such an action will have significant international repercussions, because the more vaccine one country uses, the less will be available to share with the world. Finally, Turkey, which has minimal vaccine, has requested aid from its NATO allies. However, this *health crisis* is not the traditional type of security emergency that NATO was designed to address.

**Suggested discussion questions (refer to challenges 1, 2, 3, and 4)**

1. How should limited stocks of essential medical resources (e.g., medicines, vaccines) be distributed throughout the international community during a biosecurity crisis? Given their responsibilities to their own citizens, how should the national leaders who control these limited supplies respond to requests to share them? How should requests be prioritized? Who should participate in the decision making?
2. Most of the international institutions that exist today (e.g., UN, NATO, EU, WHO) were shaped by traditional security concerns and the threats of the Cold War. What institutions will policymakers use to address a biosecurity crisis? What roles can existing international institutions play in preventing and responding to 21st century biosecurity threats and catastrophic terrorism?
3. Could a health crisis trigger the collective security obligations of the NATO *military* alliance (under the North Atlantic Treaty's Article 5)? Can and should security arrangements be used for terrorist strikes involving health and biosecurity?

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**10:30, 10:45 a.m.** Countries from around the world that have not yet been affected by the outbreak, but fear they could be next, have begun to request vaccine from countries that have significant stocks of vaccines. As pressures to share scarce vaccine increase, smallpox cases are discovered in the U.S., which has the largest stockpile of vaccine. Calls for the U.S. to protect its citizens before sharing any vaccine abroad begin to surface in the media and in the Congress.

**Suggested discussion questions (refer to challenges 1 and 3)**

1. How should leaders balance their responsibility to their own countries with their obligations to the global community during a biosecurity crisis? What factors must be taken into consideration in achieving that balance? In addition to global responsibilities, are there special regional responsibilities as well (e.g., within EU, U.S.-Canada)?
2. Should members of the international community work together to develop new tools, technologies, and systems that could radically accelerate development of new medicines and vaccines? If so, how? What obligation do the international scientific community and the global pharmaceutical industry have to any such endeavor?
3. During a bioterrorist attack or an influenza pandemic, even the modern, well-equipped hospitals of wealthy countries will be stressed and stretched beyond their capacity, while at the same time there will be calls to share life-saving equipment, supplies, and trained staff with less developed countries. What obligation do wealthy countries have to resource-poor countries with regard to sharing of crucial medical resources? How can wealthy countries best assist resource-poor countries with medical issues?

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**11:00, 11:40 a.m.** As pressures to control the spread of disease mount, and it is reported that private sector organizations and local governments are taking unilateral actions to protect themselves and their assets, the leaders at the summit focus on their limited options and the political and economic ramifications of actions that may include:

- Sharing and/or diluting vaccine
- Closing borders or otherwise restricting the movement of people
- Enlisting the WHO as the independent broker to manage allocation of scarce medical resources

**Suggested discussion questions (refer to challenges 1, 2, and 4)**

1. In the face of a global infectious disease outbreak, what can the international community reasonably do to slow or halt the spread of disease that will not have significant negative economic, social, and/or political consequences? What if there are only small amounts of or no medicine or vaccines? (This would be the case with pandemic flu; a vaccine tailored to the virus would not be available for 6 to 12 months after the pandemic begins.)
2. How should national leaders determine the risks and/or benefits of various disease control measures such as border closure or quarantine? Under what conditions would the significant economic, political, and social consequences of such actions might be outweighed by the potential benefits? If actions are taken to restrict the movement of people, for how long would restrictions have to be maintained, how would they be coordinated internationally, and how would the decision be made to lift them?
3. As international leaders work to halt the spread of disease, how would the actions of multiple countries and private sector actors (e.g., ports, airlines, trade unions, financial and manufacturing sectors) be coordinated? Are there critical commercial or infrastructure nodes that should be safeguarded first (e.g., ports, vaccine manufacturing plants), and who makes this decision?
4. In *Atlantic Storm*, experts had differing opinions as to whether diluted smallpox vaccine would be effective. Similar scientific questions are likely to arise during any pandemic or bioterrorist attack. What guidelines or processes should be adopted to resolve these differences in advance of a crisis and to assist international leaders who will have to make urgent decisions in spite of scientific and medical disagreement?

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**1:40, 2:45 p.m.** As the leaders prepare to meet with the international press and deliver a message to their citizens, the U.S. President underscores that her first duty is to her own citizens, even as she struggles to find a way to assist the international community. Accordingly, the leaders work to develop a statement to the press and the public that will inspire confidence while refraining from making promises that cannot be kept.

**Suggested discussion questions (refer to challenges 3 and 5)**

1. How can national leaders effectively engage with their citizens both prior to and in the midst of a biosecurity crisis? What should they ask their citizens to do to contribute to response efforts?
2. How can the leaders of the international community work across international borders to coordinate messages and communicate effectively with the global public during any biosecurity crisis? What might happen if there is a lack of international coordination of public communications?

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**4:00 p.m.** The scenario concludes and participants step out of their roles to discuss the day's events. To a great degree, discussion focuses on the role of international institutions, specifically the WHO, in managing an international biosecurity crisis. Significantly, Gro Harlem Brundtland, former Director General of the WHO, reminds everyone that, "the budget of the WHO has very considerable limitations. It's like a middle-sized hospital in England in total resources."

**Suggested discussion questions (refer to challenge 4)**

1. Both Sir Nigel Broomfield and Jan Eliasson note that globalization brings new threats and challenges, with threats to biosecurity foremost among them. Are existing international institutions such as NATO and the EU structured and positioned to cope with such new challenges of globalization? How well can such institutions cope with challenges that span the mission and/or responsibilities of more than one such organization (e.g., NATO-EU, EU-UN)?

2. The participants agree that the WHO is the only international organization that could possibly serve as a trusted, honest broker during an international biosecurity crisis such as that posed during the *Atlantic Storm* exercise. Is this appropriate? Does an alternative candidate to the WHO exist? Should or could a new one be created?
3. In spite of the hard work and dedication of the WHO staff, the budgetary, political, and organizational limitations placed on the WHO by its member states will likely prevent the WHO from being as effective as it could be during a biosecurity crisis. How can the international community effectively build the capacity of the WHO to meet these challenges? In addition to increased funding, are there other aspects of the WHO's authority and organization that could be bolstered or improved?

## CONCLUSIONS & LESSONS LEARNED

The lessons and conclusions derived from the *Atlantic Storm* exercise are broadly relevant to any international outbreak of infectious disease, regardless of the pathogen and whether the outbreak is natural or the result of bioterrorism.

**Preparation will matter:** Countries must begin working together now to prepare systems that will support a collaborative international response to destabilizing epidemics, whether of natural cause or the result of bioterrorism. National leaders will not be able to create such systems in the midst of a crisis. Furthermore, diplomatic and political preparation, while critical, will not matter if appropriate medicines, vaccines, and medical and public health capacity are lacking, so systems must be comprehensive in scope.

**Increased knowledge and awareness are essential:** National leaders must become as knowledgeable of the unique challenges posed by destabilizing epidemics as they are of “traditional” terrorism and national security threats. As they do for all other security threats, leaders should have on hand a “checklist” of immediate actions they must take in response to an epidemic – especially one caused by a bioterrorist attack.

**“Homeland” security must look abroad:** Homeland security cannot be achieved without attention to the abilities of neighboring states and allies to prevent and respond to large epidemics. Uncontrolled epidemics will spread across borders, threatening illness, death, societal disruption, and economic and political destabilization. Biosecurity will be achieved only through a holistic approach to homeland security — one that looks beyond each country’s geographic boundaries.

**The World Health Organization’s authority must be aligned with expectations:** World leaders should provide the WHO with resources and authority commensurate with the broad and serious expectations they have of the organization’s role in responding to international epidemics of infectious diseases. Today, in spite of all expectations, the WHO has concrete and serious budgetary, political, and organizational limits that will be overcome only through concerted action by the WHO’s member states.

**Effective communication between countries and with the public is critical:** National leaders must be able to establish effective and accurate lines of communication with other world leaders and with the public. Otherwise, time, which is always critical in responding to an epidemic, may be wasted, and leaders may lose the public’s acceptance and trust when they need it most. Communication plans that seek to engage citizens constructively in emergency response should be established and tested well in advance.

**Adequate medical countermeasures must be developed:** World leaders should work together to make significant investments in biomedical research and development of medicines and vaccines, as well as to under gird and strengthen hospitals and public health systems, all of which are essential to biosecurity. The current lack of medical countermeasures to infectious diseases and the inability to quickly increase global production of those that do exist may force leaders to employ disease control options, such as border closures, that could be socially, politically, and economically destabilizing and serve to turn a crisis into a catastrophe.

**Biosecurity is one of the great global security challenges of the 21st century:** One of the great challenges of our century is preventing the deliberate use of disease as a weapon for killing millions, destabilizing economies, and disrupting societies. One of our great *opportunities* is to take steps that will make us both strong and resilient in the face of destabilizing epidemics — be they natural or intentional. Our biosecurity measures must always be more potent than any bioweapon used against us or any novel infectious diseases that emerge to threaten our health and well-being.

## RESOURCES AND SUGGESTED READING

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- Center for Biosecurity of UPMC – Archive of pandemic flu resources. <http://www.upmc-biosecurity.org/avianflu/archive/index.html>
- Center for Transatlantic Relations of JHU Website: <http://transatlantic.sais-jhu.edu/>
- Common Ground: A pandemic influenza exercise for the European Union – Final Report: [http://ec.europa.eu/health/ph\\_threats/com/common.pdf](http://ec.europa.eu/health/ph_threats/com/common.pdf)
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