NATIONAL PREPAREDNESS LEADERSHIP INITIATIVE

# Meta-Leadership Lessons from The Ebola Crisis

*An NPLI Case History*

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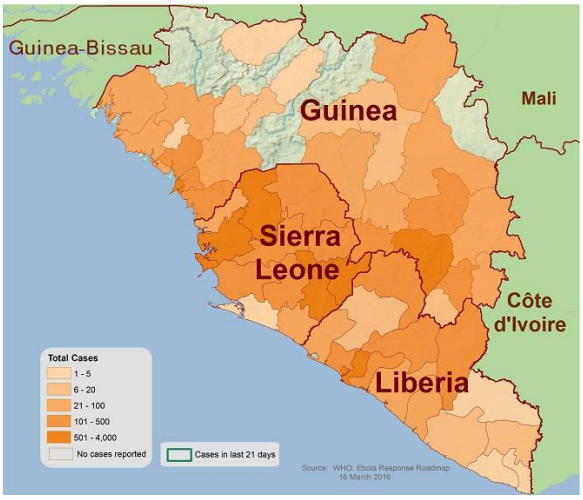
# Meta-Leadership: Ebola




*West African Outbreak Distribution Map (Credit: CDC [https://www.cdc.gov/vhf/ebola/resources/distribution-map-guinea-outbreak.html](https://www.cdc.gov/vhf/ebola/resources/distribution-map-guinea-outbreak.html))*

# Background

The 2014 Ebola outbreak was one of the most significant public health crises in recent history. On March 25, 2014, the Centers for Disease Control and Prevention (CDC) announced a reported outbreak of Ebola hemorrhagic fever in four southeastern districts of Guinea, West Africa, with additional suspected cases in neighboring Liberia and Sierra Leone. Beginning with 86 suspected cases, including 59 deaths, reported in March, the number of suspected cases rose to 3,069 by August 2014 across the countries of Guinea, Sierra Leone, Liberia, and Nigeria.

Beginning in September 2014, the outbreak began to spread beyond West Africa as those exposed or infected traveled to other countries and continents.[1] In October 2014, the first confirmed cases of Ebola in the United States were reported after an infected traveler was treated in Dallas, Texas and two nurses contracted the disease.[2]

**About the CDC and the Response**

Over the course of the 2014-2016 response, the CDC completed 3444 deployments throughout the U.S., the primary affected countries in West Africa, and non-affected border countries. When the response ended in 2016, more than 11,300 people had died, with over 27,000 cases confirmed, and millions more affected. The U.S. saw two imported cases, one death, and two healthcare workers infected locally.[3]

"[A]s the epidemic intensified, [the CDC] launched the largest response in its history," CDC Director Tom Frieden, M.D., M.P.H. said in 2016, noting that "[t]his outbreak highlighted how much more we have to learn about Ebola, and it demonstrated that all countries are connected…. An outbreak in 1 country is not just a national

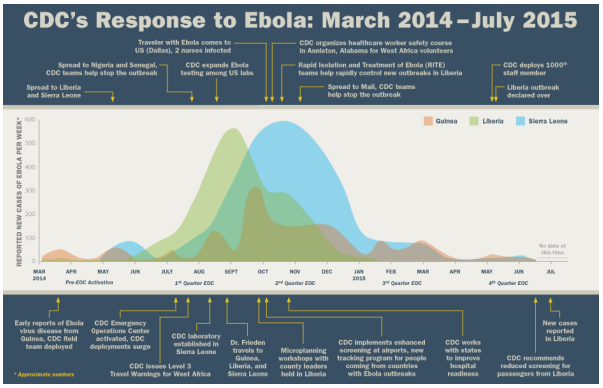
[1] Centers for Disease Control and Prevention. (2014). Outbreak updates, Ebola. Retrieved from https://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/previous-updates.html

[2] Centers for Disease Control and Prevention. (2015). CDC's Response to Ebola: March 2014-July 2015, timeline. Retrieved from https://www.cdc.gov/about/ebola/timeline.html#modalIdString_CDCImage_0

[3] Centers for Disease Control and Prevention. (2014). Ebola – CDC's role. Retrieved from https://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/what-cdc-is-doing.html; Centers for Disease Control and Prevention. (2015). The road to zero, the CDC's response to the West African Ebola epidemic. Retrieved from https://www.cdc.gov/about/pdf/ebola/ebola-photobook-070915.pdf

emergency, but a global one."[4] The CDC activated its Emergency Operations Center (EOC) to coordinate efforts in prevention, preparedness, disease control, case response and analysis, and health education. The CDC worked with other U.S. Government agencies to set up traveler screening for all entering the country from Ebola-affected regions, and to address the potential spread to healthcare workers from infected patients. Outside of the U.S., coordination with the World Health Organization (WHO), international ministries of health, non-profit organizations like Doctors Without Borders, and foreign governments was also crucial to managing the response effort.

Although the CDC did not officially end its response until March 2016, the most critical period stretched from March 2014 to July 2015.




*(Click on image for the enhanced CDC timeline).*

CDC teams were dispatched to Guinea shortly after the first reported cases in March 2014, with more teams following as the outbreak began to spread to neighboring countries.[5] The Emergency Operations Center was activated in July 2014, around which time research laboratories began increased testing in the U.S. and West Africa.[6] Following the first reported cases of Ebola in the U.S., the CDC implemented enhanced airport screening to contain the spread of disease from exposed or infected travelers and to improve tracking of those entering the U.S. from countries affected by the outbreak. More than 175,000 healthcare workers in the U.S. and Africa were trained on disease prevention, containment, and other critical infection control procedures.[7]

Despite these massive efforts to confront this unprecedented outbreak, numerous challenges arose, namely the resulting fear of a widespread outbreak in the U.S. There also arose a conflict between the public health community and political leaders regarding the benefits of instituting a travel ban for all West African countries. While CDC leaders focused on evidence-based decision making and held fast that a travel ban could heavily influence a more widespread, potentially catastrophic outbreak in Africa and Asia, other public leaders in the U.S. feared that allowing further travel to infected areas would cause additional cases to spring up at home. Blame was passed around for reportedly inadequate training of healthcare workers at the Dallas hospital that resulted in the two nurses becoming infected.

[4] News from the Centers for Disease Control and Prevention. (2016). CDC's historic response to Ebola, *JAMA.* 316(8):810. doi:10.1001/jama.2016.10955.

[5] CDC, Timeline.
[6] CDC, Timeline.
[7] CDC, The road to zero.

Also, as a result of the rapidly evolving situation abroad, many felt that public health experts in the U.S. could and should have been more honest with the public regarding the uncertain path of the outbreak and potential for greater spread locally.[8]

When viewing the response as a whole, an overarching disconnect between public health leaders, leaders in other sectors, and the public resulted in major differences in risk assessment. From the perspective of an agency like the CDC, established protocols exist to evaluate and address a variety of public health risks. With Ebola, the miscalculation of domestic risk by many outside of public health, including White House National Security Advisors and the public, ultimately led to conflicting views on the level of response required. Without a unified understanding of the situation, leaders in different sectors found themselves in reactive mode—changing messaging and adjusting course as each new case arose. NPLI learned during conversations with leaders in the field at the time that this lead to the public losing confidence in national and public health leadership, which caused wider spread panic and other potentially avoidable adverse outcomes.

# Meta-Leadership Lessons from the Ebola Response

## *Dimension 1:*
## *The Person of the Meta-Leader*

During the response, the United States public and elected officials were often in the basement and did not appear to understand how to get out. Americans are not used to dramatic, deadly infectious disease outbreaks with the perceived possibility of rapid spread among the general public. Thus, they were vulnerable to worst-case scenarios and media hype. Also, there was great inconsistency of messaging around the topic of quarantine of asymptomatic but exposed individuals. This led to a rising level of fear and contributed to leaders and the public going to the basement.[9]

*Recommendation:*

- *Leaders should engage credible translators, such as middle school science teachers to help shape, and perhaps deliver, messaging to the lay public.* Science teachers are used to communicating complex science in simple terms. This type of strategy can serve as a tool to help leaders climb out of the

[8]Sun, L.H., Bernstein, L., & Achenbach, J. (2014, October 16). CDC director's challenge: Deadly Ebola virus and outbreak of criticism. *Washington Post*. Retrieved from http://wapo.st/11xi1La?tid=ss_tw&utm_term=.eb02d34ff898

[9] *See* Sun, CDC director's challenge; Begley, S. (2014, October 17). CDC chief faulted over confusing Ebola messaging. *Huffington Post.* Retrieved from https://www.huffingtonpost.com/2014/10/18/cdc-thomas-frieden-ebola_n_6006002.html. NB: Observations regarding how leaders reacted to messaging and other issues that arose were also gleaned from conversations between NPLI faculty and leaders involved in the response to the outbreak.

basement and engage in productive response efforts. Conveying complex information in terms more easily understood, using familiar, accessible communicators may also help keep the public out of the basement.

Contributing to the aforementioned overarching disconnect between responding agencies, the CDC's initial action was silo-based and insular, with the agency beginning to tackle the emerging public health scare as it would a more routine domestic outbreak like a flu-borne illness. The CDC Director, an epidemiologist by background, viewed the initial response through a disease containment lens. Later, the CDC would adjust its course and focus on a more whole of government response that included collaboration with Doctors Without Borders, the WHO, and the U.S. Department of State (under whose authority the CDC operates), to address broader issues like the public reaction to the outbreak.[10]

## *Dimension 2: The Situation*

Consistent and careful messaging is incredibly important to understanding and communicating about an evolving situation. The CDC initially did a good job of proactively educating the public on how Ebola cases are handled, what to fear or not fear from the outbreak, symptoms to look for and what to do if infection is suspected. Unfortunately, the impressions could not withstand the hysteria once cases began to show up in the U.S.[11]


*USAID health care workers send a patient to a treatment center in 2015 (Credit: USAID via Flickr Commons)*

*Recommendations:*

- *Watch your jargon.* When officials assured the public that there would be no Ebola "outbreak" in the U.S., they had one mental definition of outbreak—something of a scope and scale beyond a case or two. To the public, a single case constituted an outbreak and thus the credibility of officials as undermined. *Beware the words "out of an abundance of caution."* When the science indicates there is no need for quarantine and officials still say, "…but out of an abundance of caution we are going to quarantine X people," they undermine the science. This is particularly harmful if your audience has a low level of scientific

[10] *See* Bernstein & Achenbach, CDC director's challenge; CDC, The road to zero.
[11] *See* Schute, N. (2014, October 23). What to do when the CDC orders you to check for Ebola symptoms. NPR. Retrieved from at https://www.npr.org/sections/health-shots/2014/10/23/358334755/what-to-do-when-the-cdc-orders-you-to-check-for-ebola-symptoms

literacy or does not understand how the science should impact their behavior.[12]

- *When dealing with an outbreak occurring elsewhere in the world, provide geographical context.* The affected area was referred to as West Africa—a region bigger than the entire U.S. In fact, the affected area was three countries *in* West Africa. As one business executive told the NPLI, "telling me not to go to West Africa is like telling me not to visit California when you've had an outbreak in Rhode Island."[13] Conveying this basic but important information can help people better grasp how the situation may or may not impact them and others around them. This kind of straightforward clarification may also help to ease the kind of panic that ensued during this response.

Also critically important to shaping and adapting successfully to changing events is appropriate framing of the situation and cultivating an understanding of how different audiences may utilize their own framing.

*Enhanced Ebola screening at Chicago O'Hare International Airport in 2014 (Credit: U.S. Department of Homeland Security via Flickr Commons)*

*Recommendations:*

- *Frame the situation appropriately.* Preparing every hospital in the U.S. to handle Ebola was unrealistic. White House-appointed Ebola Czar Ron Klain "turned the telescope around" to focus on tracking people arriving from the affected areas in Africa. The focus on a smaller number of people arriving predominately through a few airports made success possible.[14]
- *Know your analogies.* Research by Professor Robert Blendon of the Harvard Kennedy School of Government showed that many people used severe acute respiratory syndrome (SARS) as the

[12]A study by the National Academies of Science in 2016 appeared to demonstrate that Americans have comparable scientific literacy to other developed nations, though there is a weak correlation between that knowledge their behavior. Mervis, J. (2016, August 9). Americans may know more than you think about science. *Science Daily*. Retrieved from http://www.sciencemag.org/news/2016/08/americans-may-know-more-you-think-about-science. Scientific literacy can vary based on education level, age, gender, race and other demographics. Funk, C. & Kehaulani Gooa, S. (2015, September 10). A look at what the public knows and does not know about science. PEW Research Center. Retrieved from http://www.pewinternet.org/2015/09/10/what-the-public-knows-and-does-not-know-about-science/

[13] NPLI Research Council. (2014, October 31). Comment from participant on Ebola update conference call.

[14] Klain, R. (2015, April 29). The Ebola Response: Connectivity of Effort. NPLI Executive Education Program. Harvard University, Cambridge, MA.

reference point for understanding infectious disease.[15] Due to the availability bias from that reference, they assessed risk and response—such as the need for quarantines—based on the risk from SARS rather than from the present Ebola outbreak. With a respiratory illness, quarantine is effective because of the threat of airborne spread. With Ebola, the science did not support widespread quarantine, yet that did not seem to matter to officials or much of the public.[16]

## *Dimension 3: Connectivity*

A lack of strong relationship building from a leadership level contributed to a fragmented approach to the response. In this kind of multi-agency, international response, it is likely that people on the front line are building relationships across organizations and working together organically. The NPLI learned from former CDC leadership that front line workers reported on-the-ground connectivity of this kind, though there were missed opportunities to engage in broader collaboration at the organizational level among responding agencies.

Being connected doesn't always lead to connectivity of effort. For cross-sector collaboration to be productive, there must be set goals and guidelines for meaningful contribution. During the Ebola response, NPLI faculty observed and interviewed leaders who reported participating in many conference calls that registered a great deal of activity, but not much productivity. The calls consisted of participants sharing for the sake of sharing without clear direction or desired outcomes.

*Recommendation*:

- *A good framework for strategy/response calls:* have each participant report 1) their biggest challenge; 2) how others on the call can help; 3) what they learned that day that may be of use to others; and 4) one thing they accomplished that day. This focuses the work on what can be accomplished together and lets everyone (briefly) celebrate their own wins. Based on the number of participants and the type of call (broadcast or collaborative), there should be disciplined enforcement of time blocks for sharing.

To build true connectivity, each key party must have a clear role and responsibility with the knowledge, information, and tools to do the job. Without a framework to guide activity, the work was fragmented—the opposite of a whole of government response. As a result, panicked and disconnected decision-making took hold of the public health system. For example, the NPLI learned from former CDC leadership that the U.S. came close to executing a very expensive and

[15] Blendon, R. (2016, December 8). Public Opinion and Meta-Leadership. NPLI Executive Education Program. Harvard University, Cambridge, MA.

[16] *See* Fink, S. (2015, December 2). Ebola crisis passes but questions on quarantine persist. *New York Times.* Retrieved from https://www.nytimes.com/2015/12/03/health/ebola-crisis-passes-but-questions-on-quarantines-persist.html.

unnecessary plan to prepare hundreds of hospitals to accept Ebola patients.[17]

*Recommendation:*

- *Leaders should proactively think about connectivity in order to create strategic and tactical relationships and harmony for an effective response.* For more on this idea, see "Crisis Meta-Leadership Lessons from the Boston Marathon Bombings Response: The Ingenuity of Swarm Intelligence."

## Other Key Takeaways

- *Risk Communication:* Have a ready framework for all public communication. For example, during the 2009 H1N1 response, Dr. Rich Besser (then Acting Director of the CDC) recommended that risk communication become a basic lesson in leadership training.[18] His framework for all communication follows: use repetition; tell stakeholders what you know and what you don't know; explain what you are doing to close the knowledge gap; tell the public what they should do and give people responsibility during the event; foreshadow changes in recommendations; and allow for flexible, local decision making.
- *Evidence-based versus emotional decision making*: public health officials must be willing and able to work collaboratively with concerned and engaged political leaders and the public. Each group must not only recognize the agenda and priorities of the other, but also use this information to adapt individual approaches to foster a more collaborative effort. It is especially critical to follow expert, evidence-based policy and procedure (rather than fear-based) decision making. Developing a foundation of trusted relationships across agencies and sectors can be a major asset.
- *Build a body of work and a body of knowledge*: Stick with trusted resources and references to inform evidence-based decision-making and use each event as a learning experience to create a body of work that informs future response. Build on the life cycle of each outbreak or epidemic, using the different stages of response not only to inform the immediate upcoming phase, but also to inform future preparedness plans for the next event.

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[17] *See also* Herstein J.J., Biddinger P.D., Kraft C.S., Saiman L., Gibbs S.G., & Smith P.W., et al. (2016, February). Initial costs of Ebola treatment centers in the United States. *Emerging Infectious Diseases.* Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4734525/.

[18] *See* Marcus L.J., Dorn, B.C., Henderson, J., McNulty, E., & Flynn, L.B. (2015). Meta-leadership lessons from the 2009 H1N1 outbreak. Retrieved from https://cdn2.sph.harvard.edu/wp-content/uploads/sites/88/2017/03/NPLI-Case-History_H1N1_Dist-2017.pdf; Robert Wood Johnson Foundation. (2013, March 19). Getting heard in disaster: Q&A with Richard Besser. Retrieved from https://www.rwjf.org/en/blog/2013/03/getting_heard_inad.html.

## *About the National Preparedness Leadership Initiative*

The NPLI, a joint program of the Harvard T.H. Chan School of Public Health and the Harvard Kennedy School of Government, was established in 2003 at the request of the federal government. The program conducts research on homeland security, emergency preparedness, public health, and public safety leaders in times of crisis and change, turning lessons learned into an executive education curriculum, case studies, and scholarship that highlight best practices.

## *About Meta-Leadership*

The Meta-leadership framework and practice method is core to the NPLI's curriculum. The methodology has been developed and tested through years of field research, academic inquiry, and real-time feedback from practitioners. It continues to evolve. "Graduates of the NPLI executive education program report that this framework has made a significant difference when applied in their real-world problem solving and crisis response," said NPLI Founding Co-director Leonard Marcus. "They reach out to one another and coordinate their actions more pro-actively than they otherwise would have. This sort of Meta-leadership in a crisis or other major event has important public health impact, insofar as agencies are better able to serve the population and reduce the loss of life."

The Meta-leadership framework has three dimensions to teach leadership skills:

1) The Person of the Meta-Leader: self-knowledge, awareness, and discipline;
2) The Situation: discerning the context for leadership, what is happening, and what to do about it;
3) Connectivity: fostering positive, productive relationships. Connectivity includes four key directions:
    a) leading down the formal chain of command to subordinates — within one's chain of command — creating a cohesive, high-performance team with a unified mission;
    b) leading up to superiors, inspiring confidence, and delivering on expectations; enabling and supporting good decisions and priority setting;
    c) leading across to peers and intra-organizational units to foster collaboration and coordination within the same chain of command, which includes other departments, offices, or professional groups within the same organization.
    d) leading beyond to engage external entities, including affected agencies, the general public, and the media to create unity of purpose and effort in large-scale response to complex events.

The Meta-leadership framework and vocabulary are commonly used across many homeland security, preparedness, and response organizations. Faculty have conducted hundreds of training sessions, including executive education programs at Harvard, as well as on site programs at the White House, Departments of Homeland Security, Health and Human Services, Defense, Veterans Affairs, the Centers for Disease Control and Prevention, Secret Service, FEMA Transportation Security Administration, and numerous private sector organizations.