

An Analysis of Risk Communication Failures in the Domestic U.S. Ebola Response

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Although the West African Ebola outbreak began claiming lives as early as March 2014 (World Health Organization, 2014), American media gave the epidemic little attention until it breached U.S. borders several months later. Within days, however, a simple diagnosis of a traveller from Liberia, one of the worst-affected countries, ballooned into a risk communication fiasco. Thomas Eric Duncan, a Liberian native, succumbed to Ebola at Texas Presbyterian Hospital after his symptoms were misdiagnosed as flu on his original visit five days before his admission to the hospital (Berman & Bernstein, 2014). Two nurses involved in his care, Nina Pham and Amber Vinson, subsequently tested positive for the virus; health professionals were unsure exactly how they had contracted the virus (Boghani & Molloy, 2014). To make matters worse, a CDC operator cleared Vinson to her hometown in Ohio despite her recent involvement in Duncan's care (Fernandez & Healy, 2014). Public confusion and media attention to the incidents prompted both politicians and policymakers to demand investigation into both Texas Presbyterian's procedures and U.S. travel regulations (Berman & Bernstein, 2014). This situation developed from a number of failures to attend to risk communication theories and models at the message, sender, channel and receiver levels. Both an organizational inattentiveness to source credibility and message consistency, as well as the sheer extent of media coverage regarding the U.S. cases fed into high perceived risk on the public's behalf (Washington Post-ABC News, 2014), despite repeated assurances from medical professionals that individual risk for Ebola remained very low.

In general, risk communication seeks to strike a balance between the public's need to know about potential threats and the public's need for clear information. Historically, theorists have recommended that experts err on the side of over-informing the public in the early stages of

a crisis (Powell & Leiss, 1997). Such a strategy corrects for the inevitable trickle of information revealed to the public through less reliable sources, particularly in an age of new media. Field experts are still adjusting to a small window of opportunity for providing comprehensive primary information ahead of news media coverage. In some cases, the trickle can become severe enough that expert reassurances ring hollow in the wake of a groundswell of worst-case scenario speculation. During the 1986 National Conference on Risk Communication, Lee Thomas, then-administrator of the Environmental Protection Agency, said, “There is ample information available about risks, most of it accessible to the non-expert. It may not be correct, but it is available. This has tended to diminish expert knowledge in the public eye” (qtd. in Davies, Covello & Allen, p.20). Such was the case during October’s set of stateside Ebola cases, in part because of the very newness of online media outlets, which struggle to balance accurate reporting and a demand for up-to-the-minute novel content. Tom Vacor, a Los Angeles TV reporter, agreed: “We are required to be instant experts, but we rarely investigate further the story of the day. There are big incidents, but there is very little follow-up” (qtd. in Davies, Covello & Allen, 1987, p.29). This posture toward breaking news persists in the present day, and complicated organizational fumbles regarding clear communication of how Ebola was spreading within country borders and what had been planned to contain it.

Compounding issues with over-responsive media, the political climate surrounding Ebola’s arrival in the U.S. was a particularly poor environment for effective risk communication. Though just 50 House races were competitive in the midterm elections, which occurred three weeks after the congressional hearings, all of the House seats were up for reelection (*CNN*, 2014). It therefore became advantageous for politicians, particularly federal representatives, to react in a partisan manner to action proposals, thereby appearing more attractive to swing voters.

The governmental response to the crisis—conducting congressional hearings—only fed this impulse. The first hearing conducted by the House Energy and Commerce committee occurred roughly three weeks before the elections, was meant to shed light on organizational oversights, but instead connected a delicate risk situation to an untrustworthy source. As Thomas (1987) says, “the public no longer trusts government as much as it once did. In disputes about risk, agents of the government may be seen by the public as pursuing institutional or political interests of their own” (qtd. in Davies, Covello & Allen, p.20). Since his statement, this sentiment has proven even truer. Political divisiveness on the Hill has run rampant for several election cycles, eroding shaky public trust in the government. Ebola, as we will see, primarily became an opportunity for election sound bites from federal politicians underqualified to suggest solutions to the incidence of Ebola.

In general, both agents involved in disseminating information about Ebola displayed inattentiveness to communication model-based risk communication pitfalls, which transformed a newsworthy event into a national fiasco. Because of pervasive uncertainty about the trustworthiness of official information sources, combined with contradictory message elements and less than ideal primary channels, the American public severely overreacted to the risk presented to them. This paper will build off Covello, Slovic and von Winterfeldt’s social and behavioral analysis of the specific issues present in these four elements of governmental risk communication in order to troubleshoot the specific missteps in communication about U.S. Ebola (Davies, Covello & Allen, 1987). Their research provided a theoretical basis for the 1986 National Conference on Risk Communication, which was a defining moment in the study of the risk communication process. J. Clarence Davies, executive vice president of The Conservation Foundation and one of the conference organizers, declared two purposes for the proceedings: to

identify successes and failures in existing risk communication methods, and to suggest improvements to those messages (Davies, Covello & Allen, 1987, p. viii). The framework provided by their research serves as a useful structure for examining points of error in dissemination of information regarding Ebola.

Problems, according to Covello et. al., may arise with either the message, source, channel, or receiver in risk communication (Davies, Covello & Allen, 1987). Official crisis communication about Ebola, however—and particularly the House hearing process—failed in all four of these areas, though as mentioned, source and channel problems were most severe. First, officials and authorities presented a flawed message lacking in causal narrative, and failed to do so before Ebola became an item of American media interest, a phenomenon known as an information vacuum (Powell & Leiss, 1997). Second, the country's political climate, especially considering the upcoming elections, was not conducive to trust in governmental officials, who took over communication after health professionals failed to present a cohesive overview of the situation. Third, while media is inherently a problematic source of scientific data, the real-time nature of new online news and social media was a particularly flawed primary channel through which to filter most Ebola information. Finally, in large part due to the above issues, public attitudes toward Ebola, the senders of messages regarding it, and the channels through which those messages are communicated made any calm reaction about the risks presented inherently difficult to achieve.

Effect of Contradictory Message Elements

In the case of U.S. Ebola, the original risk communication message presented few issues. According to Covello et. al., messages generally encounter two major pitfalls: deficiencies in scientific understanding, and excessively technical analysis (Davies, Covello & Allen, 1987).

When Ebola reached epidemic status in West Africa, there was little confusion in medical communication about how the disease was spread. Centers for Disease Control and Prevention infographics outlined the soothing reality that Ebola is not an airborne virus and can only be spread through contact with the bodily fluids of a person displaying symptoms (Centers for Disease Control and Prevention, 2014). Prior to Duncan's arrival, two American doctors were brought home from West Africa for further treatment; at this time, the scientific community presented contagion information clearly and consistently (Botelho, Brumfield, & Carter, 2014). Even Duncan's case was consistent with existing communication about how the disease was spread, although his ability to enter the country carrying Ebola sparked considerable political debate about travel restrictions.

The risk message itself only truly encountered trouble when Pham and Vinson fell ill without clearly violating medical procedure, yet as a result of caring for Duncan. This occurred despite numerous public reassurances that Ebola transmission was understood and preventable. During the first congressional hearing, Rep. Jan Schakowsky (D-IL.) said:

I still don't feel like we have a good answer of why nurse one and nurse two contracted Ebola. Is it because there was a problem with not following the protocols or is there something wrong with the protocols? And how are we going to ensure that even if we have the best protocols in the world that everybody knows how to use them? (Examining the U.S. Public Health Response, 2014, p.110)

While an explanation consistent with scientific evidence surely existed, CDC director Dr. Thomas Frieden and Texas Health Resources director Dr. Daniel Vargas were both widely quoted as saying they did not know how the nurses had contracted the disease (Berman & Bernstein, 2014; Fernandez & Healy, 2014; CBS Local Media, 2014). This primary

communication was compounded by Duncan's initial misdiagnosis; all three instances suggested a healthcare system woefully unprepared for the challenges ahead, despite all they had said to indicate otherwise. Other relevant factors, such as the fact that both U.S. patients were healthcare workers, a high-risk group, or that Ebola protocol had not been followed on Duncan's original hospital visit, was not emphasized (Fernandez & Healy, 2014; Berman & Bernstein, 2014). This perpetuated a perceived data discrepancy in the message: Ebola, though deadly, was supposedly hard to catch, but two people caught it in quick succession. It is understandable, therefore, how the public developed some suspicion as to the explanation about Ebola they had initially been presented with.

Source Trustworthiness

Slight message discrepancies cannot shoulder all of the blame for the failures in communicating Ebola risk. Much more significant was the reliance on untrustworthy and uninformed sources to communicate the message—a common trouble point identified by Covello et. al. (Davies, Covello & Allen, 1987). Prior to the congressional hearings, the primary informational source was spokespersons for major medical organization involved in the care of Ebola patients. Unfortunately, though, American confidence in medical organizations hovers at a modest 34% as of June 2014 (Gallup). Compounding a lukewarm level of trust in these organizations were their well-publicized mistakes in containing the spread of the disease. Initially, Texas Presbyterian Hospital diagnosed Duncan with flu on his first emergency room visit, sending him home (Berman & Bernstein, 2014). Not only did this result in the unchecked and fatal progression of his symptoms, but it also created a contamination nightmare for residents of his apartment complex (Sack & Fernandez, 2014). Medical professionals' failure to distinguish between flu and Ebola, and failure to follow protocol upon learning that Duncan had

recently traveled from Liberia, seemed outrageous missteps from trusted experts. Public trust in Texas Presbyterian hospital was especially damaged—during the following month, emergency room visits at the hospital declined by 50% and revenue by 25% (Jacobson, 2014).

To compound Texas Presbyterian's woes, it transpired that Vinson had called the CDC prior to her flight to Ohio and received permission to make the trip. Though Dr. Frieden confirmed that she had not shared any known symptoms with the CDC operator (Berman & Bernstein, 2014), many Americans felt she should not have been cleared for commercial flight so soon after caring for Duncan. The subsequent contamination scares on Frontier Airlines and in Ohio undermined the CDC's insistence that existing travel regulations would sufficiently contain any domestic spread of Ebola (Fernandez & Healy, 2014). As these two healthcare groups were most involved in managing Ebola cases at the time of the congressional hearings, their officials were widely quoted in media coverage of the crisis. However, their well-publicized treatment missteps discouraged the public from accepting either organization's further reassurances about a low risk of infection. An NBC/Wall Street Journal poll found that just under half of Americans had a positive opinion of the CDC during the outbreak (Dann, 2014).

The shortcomings of the organizational medical response led to the October House hearings, which were intended as a formal investigation of what had gone wrong in Ebola containment procedures. Meant to shed light on the inner workings of both organizations, these testimonials and question-answer sessions allowed for testimony from Dr. Frieden, Dr. Vargas and other health professionals as well as cross-examination by House representatives. Unfortunately, there could hardly have been a less trustworthy organization heading up this investigation, as far as citizens were concerned. Public confidence in Congress' ability to handle its job at the time of the hearings had sunk to just 14%, 5 points higher than the all-time low of

9% the previous November (Gallup, 2014). Congressional hearings, however, are designed to collect information about a particular event in order to inform future policymaking—they do not automatically create policy (Schemeckebier & Eastin, 1969). Because the hearings were inherently designed to uncover a chain of errors, rather than generate potential solutions, they fit most naturally into media coverage that highlighted negative aspects of the Ebola cases. From a successful risk communication perspective, this made the hearings a detrimental addition to public information about Ebola: they drew unneeded attention to aspects of Ebola containment that were not the most important to predicting successful control of the virus.

Partisanship and Congressional Credibility

In the absence of publicly trustworthy information from the CDC or another public health institution, Congress became a starting point for public health solutions. During the congressional hearings, the clearest governmental response suggestion arose from Republican quarters. Conservative representatives such as subcommittee chairman Tim Murphy (R-Penn.) almost unilaterally pushed for a travel ban on air passengers from West African countries affected by Ebola, citing the government's responsibility to do "whatever it can to keep the public safe" (Examining the U.S. Public Health Response, 2014, p.18). Though this solution was rhetorically clear, it was near-universally unsupported by medical professionals. According to their reasoning, a travel ban would complicate travel screening conducted at airports, which was due to expand in the coming days by obscuring the true travel origins of inbound passengers (Berman & Bernstein, 2014). Further, Dr. Frieden and others felt that sealing borders between America and the affected countries would hamper relief efforts by slowing transmission of medical supplies (Examining the U.S. Public Health Response, 2014), though media outlets seized on their moments of uncertainty by declaring they "did not rule out" such a ban (Berman

& Bernstein, 2014). Conversely, Tim Murphy (R-Tenn.), subcommittee chairman of the first hearing, argued that “screening and self-reporting [had] been a demonstrated failure” in reference to Duncan’s uncontested entry into the country, and that in light of this, the current policies did not “make sense ... especially if priority one is to contain the spread of Ebola” (Examining the U.S. Public Health Response, 2014, pp. 7-8). Michael Burgess (R-Tex.) superseded medical authority in the context of the hearing by arguing that “people are asking us to [have a vote on travel restrictions], and I think they are exactly correct to make that request” (Examining the U.S. Public Health Response, 2014, p. 104). It is certainly true that an appeal for the passage of a clear preventive measure looked strong and assertive, and might have been a savvy political move with elections so near in the future. Burgess’ comment in particular appealed to ideas of democracy and personal say in governmental proceedings. However, the people-centric rhetoric used by these representatives encouraged a sort of “put your own oxygen mask on first” attitude, and thereby created the illusion of a much more dire national crisis. To compare, in similar disease risk scenarios generated from the swine flu or SARS outbreaks overseas, no such travel bans were implemented (Lipsey, 2014). Nevertheless, the resulting perception of expert disagreement between medical professionals and government representatives had a negative effect on the success of risk communication efforts (Davies, Covello & Allen, 1987).

Despite the clear weaknesses of the Republican response suggestions, they were not alone in perpetuating an unsatisfactory governmental response. Partisan rhetoric dominated remarks from both sides of the aisle. While Democratic representatives did not directly contradict expert advice about a potential response, they opted to pass over the muddy details of the mishandled U.S. cases in favor of denouncing Republican travel ban suggestions and

suggesting that the Ebola situation had deteriorated due to previous Republican budget policy. Democrat Katherine Castor of Florida referred to the crisis as a “wake-up call” and remarked that she had “offered an amendment to the Republican budget to restore the cuts to NIH ... and repair the damage of the government shutdown” but that the bill had failed to pass “on a party line vote” (Examining the U.S. Public Health Response, 2014, p. 118). Similarly, Henry Waxman of California highlighted a 40% cut to the Public Health Emergency Preparedness cooperative agreement that had resulted from the sequester, saying “those who allowed that sequestration to happen by closing the government have to answer to the American people as well” (Examining the U.S. Public Health Response, 2014, p. 25). By highlighting party disagreements within the federal government, Democrats actually drew further attention to perceived dysfunction on the Hill. Although they may have taken this tack in an effort to make their election opponents look less favorable, it proved to be a waste of time strategically, as it prevented them from communicating any clear policy alternatives, a necessity identified by Covello et. al., to the Republican travel ban suggestion (Davies, Covello & Allen, 1987). By emphasizing comparison to the broader political context over troubleshooting public health missteps, Democratic testifiers missed a chance to act in an informed and decisive manner where other authorities had not, and thereby reinforced distrust in congressional competency.

Not only did congressional partisanship during the hearings fail to generate a discussion of risk assessment limitations; it also perpetuated a continuing failure to address specific individual fears, interests, and priorities concerning Ebola (Davies, Covello & Allen, 1987). Republican representatives did speak to a concern for safety and an interest in being involved in government, but did so through over-the-top policy suggestions that exaggerated the risk of infection. Conversely, Democratic rhetoric failed to address specific fears, interests, or priorities,

as it relied mostly on general pleas for calm instead of particular details that would reassure the public of the comprehensive nature of the existing response. These representatives were particularly inattentive to growing public fear toward Ebola, as they generally mirrored health representatives' rhetoric, despite public suspicion of those representatives' ability to contain the situation. As Alvin Alm of Thermo Analytical Corporation once pointed out, "the institutional setting for decisions on risks is one established not for national communications, but for highlighting dramatic differences" (qtd. in Davies, Covello & Allen, 1987, p.53). Once the Ebola response had reached the congressional hearing phase, Congress itself became the institutional decision maker. Though Congress initially appears to be a desirable setting for "national communications," it harbors several inherent shortcomings that, in the case of Ebola, complicated coherent risk communication. Renn and Levine (1991) observe that "institutions and social actors involved in managing risk have to cope with the problem of legitimating their decisions and policies in a political arena" (p. 175). This need for legitimacy is further complicated during an election cycle, when a politician's very place in the political circuit rests on distinguishing him or herself from an opponent. For Republican candidates, this manifested as an insistence on the bold, albeit unnecessary and counterproductive, introduction of travel bans. In response, Democratic candidates generally refused to entertain the idea of a ban, and brought up historical examples of harmful Republican policies. Both responses reflect the fact that the 113th Congress responsible for conducting the oversight hearings was widely considered one of the most divided and least productive in the nation's history (Cillizza, 2014). It is certainly true that a sharp partisan divide between House and Senate had repeatedly tended to highlight dramatic differences rather than create bipartisan solutions. As Alm rightly observed, a setting fraught with historic levels of partisanship and election campaigning does not lend itself to

reasoned and responsive risk communication. Such vocal disagreement about how to manage a new risk to public health, however, did not contribute to a countrywide sense of individual safety.

News and New Media as Risk Communication Channels

It is impossible to discuss poor public perception of the government, or even medical experts, without discussing the impact of the primary channel through which the public interacts with these authorities. Congressional hearings themselves have an arguably minor immediate audience, but news and media outlets that reported on those hearings communicate with a much wider section of the populace. An in-depth diagnosis of the weaknesses of allowing new media to become a channel for Ebola risk communication is therefore essential to understanding how the message got so out of hand. New media realities are a particular challenge when it comes to accurate contemporary crisis reporting. The conundrum is well described by Powell and Leiss's concept of the risk information vacuum, where assessments of "high-profile risks" are not specially communicated to the public in a regular and effective manner (Powell & Leiss, 1997, p.31). Powell and Leiss argue that, "instead, partial scientific information dribbles out here and there and is interpreted in apparently conflicting ways, mixed with people's fears" (1997, p. 31). We see this clearly happening in the development of the domestic Ebola situation. Interestingly, the CDC had already communicated comprehensive risk assessment over the summer (Centers for Disease Control and Prevention, 2014), though as mentioned, the epidemic had not received much public attention. Despite this wealth of existing, well-understood information about Ebola, the originally sound message discussed earlier in this paper, "apparently conflicting" interpretations arose, which arguably had much to do with the realities of today's new media. Internet-based news, video content, and social media provide a constant stream of current events

coverage, but this coverage is of variable quality and is just as accessible as regular media sources (Kim, Sin, & Yoo-Lee, 2014). It is prone to premature presentation of scientific findings and oversimplification of technical details, both channel problems identified by Covello et. al. (Davies, Covello & Allen, 1986). The public may have perceived a higher risk despite the CDC's earlier efforts due to inundation with less credible information about Ebola once Duncan's case hit the press.

Even reputable news sources, which ideally strive for unbiased factual reporting, fell prey to a number of channel weaknesses identified by Covello et. al (Davies, Covello & Allen, 1987). First, it is important to remember that media is its own stakeholder (Demko, 1998). Just as print media depends on ad revenue and high circulation, online media subsists on site visits. Essentially, it pays to be the first news outlet to provide information, and to provide that information in the most intriguing, often sensational, manner (Davies, Covello & Allen, 1987). In a number of ways, news media has struggled with this for centuries, in part because of the gap between reporting professionals and issue experts. Vacor, an LA television reporter, said that in his experience as a local reporter, it was necessary to become an "instant expert" on a number of technical subjects under deadline (qtd. in Davies, Covello & Allen, 1987, p. 29). The danger with this structure of reporting is that it increases the likelihood of incomplete or, at worst, inaccurate coverage of crises. Media benefits from framing current events in the most exciting manner possible; as Edelman (1977) says, "people who benefit from a crisis are easily able to explain it to themselves and to the mass public in terms that mask or minimize their own contributions and incentives, while highlighting outside threats and unexpected occurrences" (p.46). Because the public already consumes a large amount of media, it is important that risk events are communicated comprehensively through such channels to encourage informed citizenship.

However, media is often ill equipped to create accurate risk assessments at the outset of a crisis situation due to its own stakeholder interests, as evidenced during the domestic Ebola scare.

In terms of internet news reporting, the expert-making process occurs at a much faster rate, which further exacerbates the temptation to oversimplify issues and employ alarmist vocabulary in headlines (Davies, Covello & Allen, 1987). This tendency is particularly obvious in headlines for stories that covered the first House hearing about Ebola. PBS declared, “Representatives Push for Travel Ban at Ebola Hearing” (Boghani & Molloy, 2014), and the *Washington Post*’s “Congress presses for Ebola travel ban” headline mirrored this (Berman & Bernstein, 2014); NBC announced “Dem Senate Candidate ‘Greatly Concerned’ by U.S. Ebola Response” (2014); CBS trumpeted the “Political Blame Game over Ebola Funding” (The Associated Press, 2014). Political posturing rose to the forefront of what media consumers read about the crisis. Since elections were imminent, this is understandable, but was detrimental to public understanding of the crisis, as already discussed. Furthermore, news media tends to gravitate toward quoting public figureheads, in part because it is newsworthy to portray them as “asleep at the switch” where applicable in crisis situations (Davies, Covello & Allen, 1986, p. 29). This may account for how widely Dr. Frieden, director of the CDC, was quoted in media outlets. Although he did not field Vinson’s call to CDC headquarters, was not privy to information about Texas Presbyterian’s procedures and record-keeping, and did not have much knowledge of other countries’ travel restrictions regarding Ebola, he was repeatedly asked to comment on these issues during the congressional hearing (Examining the U.S. Public Health Response, 2014). His repeated assertions that he could not comment on particular procedures or speak for certain organizations made him look alarmingly uninformed, and, by extension, made the CDC look unprepared to handle the crisis. If news consumers were not engaged enough to

digest entire articles, they would be very likely to take away an impression of widespread incompetency, danger, and dire response circumstances.

A final weakness of media as a risk communication channel is its “primarily reactive” informational posture (Davies, Covello & Allen, 1987, p. 29). News media, whether print, online, or visual, is not automatically affiliated with organizational experts and therefore is not involved in the initial preparation of risk information. Vacor sums up the result of this detachment as follows:

We tend to come in after an incident involving risk. We look primarily for victims: victims make good television, good print...we like critics because they can look at some event and say that if something had happened or had not happened, there would clearly have been a different outcome. (Davies, Covello & Allen, 1987, p. 29)

Victims and critics abounded in media coverage of the U.S. Ebola cases. During the hearings, Pham was being moved from Texas Presbyterian to NIH facilities in Bethesda, MD; up-to-the-minute coverage of her flight plan and travel path filled local news channels alongside quotes from the hearing itself (Berman & Bernstein, 2014). Initial reporting speculated as to whether her condition had deteriorated, although it later turned out that this was not the case (CBS Local Media, 2014). Earlier, multiple news sources documented stories of parents who had pulled their children out of Ohio schools for fear of contact with those who had flown with Vinson (Fernandez & Healy, 2014). Layered with these testimonies were repeated critical inquiries into mistakes made by the Texas hospital, and even airport authorities. Essentially, the media communicated what it is designed to communicate: details and analysis of what had already happened. Most analysis covered the reasons why previous measures had failed, leaving little room to focus on new risk reduction proposals. While analysis of risk communication and policy

mistakes is an important part of improving crisis response, it does not encourage accurate analysis of personal risk.

The Public as Risk Message Receivers

A particular danger of media-heavy crisis reporting is the public's tendency to respond according to the heuristic availability procedure (Morgan, Henrion, & Small, 1990). This falls into Covello's final category of risk communication problems, that is, receiver issues. Heuristic availability posits that "probability judgment is driven by the ease with which [an audience] can think of previous occurrences of the event, or the ease with which they can imagine the event occurring" (Morgan, Henrion, & Small, 1990, p. 103). In other words, individuals will determine their personal risk level according to how easily they remember or can imagine the danger happening to someone else. It is easy to see how this procedure created an impression of high personal risk of Ebola contraction last October. Mainstream American media vastly underreported several months of infrastructure-devastating death tolls in Liberia, Sierra Leone, and Guinea, the countries worst-affected by the epidemic (World Health Organization, 2014). However, once Ebola spread within country borders, a media firestorm was unleashed. Not only were the victims persons who had more in common with the audience, but their care also was more widely publicized, as analyzed above. This made the U.S. cases readily accessible to the average news viewer, especially in comparison to the situation in West Africa, and caused the American public to develop a wildly inaccurate perception of their personal risk levels.

A critical element of the American public's response to domestic Ebola was the information they had already absorbed regarding the disease. Prior to its advent within the country, Ebola had been publicized as a vicious and deadly virus. At the time of the congressional hearings, the West African death toll was reported at approximately 70% of

victims, although this figure was later revised down (BBC News Africa, 2014; World Health Organization, 2014). Symptoms included diarrhea, vomiting, and hemorrhaging (World Health Organization, 2014). This information was certainly dire, and naturally terrifying; with these details foremost in public perception of the disease, the general reaction is somewhat understandable. However, Ebola within the U.S. bore little resemblance to Ebola in West Africa, due to wildly different healthcare contexts. Critically, West Africa's healthcare system was meager before Ebola caught hold, and did not have the supplies or facilities necessary to properly contain and treat the virus (World Health Organization, 2014). In contrast, U.S. health systems, which are among the world's most well funded and researched (Davis, Stremikis, Squires, & Schoen, 2014), were aware of the epidemic before Duncan entered the country. While there is no vaccine for Ebola, health professionals say that simple medical care such as rehydration can make a remarkable difference in patient recovery (World Health Organization, 2014). However, these details generally did not rise to the forefront of news coverage at any point during the crisis, making the steep death toll seem applicable to any cases within the U.S. It is plain to see how the public's reaction stems from the knowledge they had accrued before the crisis began. Unwilling to understand the complexities of global virus containment, or simply unable to access balanced information, the public reacted in accordance with the severity of the risk they perceived.

On the other side of the Ebola scare, it has become clear that the heuristic availability procedure remains true: individuals will perceive their level of risk according to how easily they can remember it happening around them. Without further U.S. cases of the disease, Ebola has faded out of sight and mind. While this makes for a disheartening national portrait of humanitarian interest, it does serve as a light at the end of the tunnel for modern-day risk

communication. The media machine that generated the Ebola frenzy has, inevitably, moved on to fresh scandals. Election season has passed, and without further domestic cases, politicians have ceased incorporating Ebola into their series of talking points. A few positive outcomes did result from the level of alarm raised: Congress approved a \$5.48 billion grant for efforts to fight Ebola (Wayne, 2014), and the infection rate in Liberia and Sierra Leone has leveled off as of this writing (Westcott, 2015). Scientists, meanwhile, have taken advantage of newly increased funding to test two potential vaccines (World Health Organization, 2014).

Implications

While the U.S. and much of the world have moved on from Ebola, the incident retains significant long-term theoretical and organizational impact. Ebola did not fade from the public consciousness due to successful communication on behalf of healthcare organizations or government officials. It is highly unlikely that significant reconciliation of trust has occurred with Texas Health Services, the Centers for Disease Control, or Congress. Mistakes inevitably happen in all areas of risk alleviation; therefore, health professionals must develop more detailed record-keeping systems to combat uncertainty. If information had existed as to how Pham and Vinson contracted Ebola from Duncan, this may have alleviated some of the public concern. Regardless, more explicit communication from professionals as to why Ebola was not as concerning within the United States as it is in West Africa, might also have calmed some of the furor surrounding domestic cases. Health professionals were also in a good position to recommend support of medical charities working in West Africa. Lave and Romer (1983) have suggested that extreme public reactions to perceived risk often stem from perceived loss of individual control. Directing public anxiety into a more productive channel such as donation to aid efforts may have allowed Americans to feel as though they were taking part in their own

safety, and calmed their fears about an unchecked spread of the disease. As for governmental trust, public opinions of Congress in particular still hovered at a low 16% at the end of 2014 (Gallup, 2014). Unfortunately, in this case, risk communication intersected with a longstanding issue of federal partisanship, which has hampered trustworthy risk communication on a number of recent contemporary issues. It goes nearly without saying that a less polarized legislative atmosphere would have a reparative effect on relations between constituents and their representatives in future.

In terms of risk communication channels moving forward, it is clear that the concept of a risk information vacuum has become increasingly appropriate to modern media frontiers. Because new media generates near-instantaneous information, field experts now also face the dilemma of balancing accuracy with the need to quickly stanch rumor mills before they permanently influence the public psyche. It will remain essential to actively avoid sensational language during early crisis reporting. With the ability to break news instantaneously comes the responsibility to vocally respect the tentative nature of “just-in” facts. Catchy headlines can result from the barest of information, but true understanding of a risk only develops with time. Media reporting should not sensationalize breaking news to such a degree that the public is encouraged to overlook subsequent analysis. The aftermath of the Ebola crisis suggests that it may be possible to overcome fear mongering through repeated presentation of accurate, factual messages. During the crisis, news outlets also provided analysis of the “facts” and “fictions” of the situation (Hobson, 2014). Many of these articles surfaced while cases were still presenting within U.S. borders, but later incidences, such as the New York City doctor who fell ill one week later, received less press than Pham and Vinson’s care did. (Schram, Cohen, Rosario, & Fears,

2014). That said, it is hard to determine whether the furor would truly have died out if there had been further domestic cases.

In sum, due to missteps at all four points of Covello's risk communication problems analysis, the 2014 U.S. Ebola cases became an embarrassing testament to poor risk communication. Despite the advantage of solid scientific knowledge about how Ebola was transmitted, early procedural mistakes by well-respected Texas Health Services and the Centers for Disease Control eroded public trust in those organizations. Moving the investigation of these mistakes into a congressional forum only exacerbated source trust issues by allowing widely distrusted politicians a voice in the proceedings shortly before a hotly contested election. Further, the extensive use of up-to-the-minute new media as a primary public communication mediator created a dependency on oversimplified, sensational content that became hopelessly intertwined with frightening information about Ebola that was already general knowledge. As a result, the receivers of the risk communication messages—the American public—reacted excessively in an attempt to protect themselves from a high perceived risk. In reality, Ebola did not present a significant threat to public health in the United States, despite a few isolated cases of the virus. Sadly, though, the extreme furor was unnecessary to securing American safety, did not make significant contributions to West African healthcare initiatives, and further stalled a restoration of trust in government and medical expertise.

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