Pandemic: A Unique Crisis Communication Category

Robert C. Chandler, Ph.D.

everbridge

Introduction

A *pandemic* is an epidemic of infectious disease that has spread through human populations over multiple continents or worldwide. Such a disease may be the result of a new or previously unrecognized virus, a contamination of water supply, or a zoonotic infection transmitted to humans. It may also be a new manifestation of a previously controlled infectious disease, or be caused by a type of infection that has become drug-resistant due to antibiotic overuse or misuse in humans or animals. The World Health Organization (WHO) classifies into several distinct stages the process by which a new strain of influenza virus, for example, moves from the first infections in humans into becoming a true pandemic. A virus may first infect animals, with a few cases in which animals infect people. In the next stage, the virus may begin to spread directly between people. When infections from the new virus have spread worldwide, it is considered a pandemic. HIV, AIDS, plague, typhoid fever, cholera, and various influenza-type viruses are examples of pandemics that have affected populations globally. A pandemic can arise suddenly and affect significantly large numbers of people simultaneously throughout the world. It is therefore a type of disaster that threatens not only global public health and safety, but also every business operation whose workforce it impacts, with implications for local, national, and international economies, and national security as well.

As in any disaster, crisis communication during a pandemic outbreak must be immediate and effective and based on reliable collection and sharing of accurate data. There will be several categories of unfolding information and instruction, which must take into account the logistical, social, economic, and psychological complexities of the crisis at hand. With a pandemic, the threat is invasive and can be sudden, yet at first it will also seem insidious and difficult for many to comprehend. Responses at each stage of the outbreak must connect the right people at the right time, be useful in gathering and contributing feedback to important resources, and must be efficient and accurate. Sensitive planning and communication are required to help avoid, reduce, and mitigate the likelihood of panic and confusion, rumor and misinformation—factors that can contribute to an unnecessary increase in the spread of the disease and impede its containment and management.

Given the breadth and critical importance of various communication tasks at each stage of a pandemic, from initial outbreak through to eventual community recovery, advanced and in-depth communication planning guided by clear and deliberate communication strategy is essential for several different entities. Public health authorities will have one set of messages, audiences, and communication methods for which to prepare, while businesses, schools, utilities, and nonprofits will, likewise, each have their own particular, relevant planning needs.

It is, of course, the primary goal of strategic public health crisis communication to limit the number of victims. However, in the *pandemic* stage of a virulent infectious disease crisis (the stage at which the infection is spreading easily from person to person), the victims of the crisis are also its vectors—the carriers of the pathogen threat itself. This scenario presents unique, ongoing, and extremely complex logistical, scientific, medical and communication-related challenges that can be stunningly difficult to comprehend or anticipate at the outset. There will be factors and issues that require extensive, frequent, interactive, and collaborative communication between and among a complex matrix of concerned resources and constituents, all of which will be tied not only statewide and nationally, but internationally, as well. It is critical for those involved in planning, leadership and outreach to understand, accept, and anticipate this complexity, so that they can effectively administer advice and aid to those who are struggling with the impact of the pandemic disaster.

There will be particular communication management challenges and thresholds to monitor, and varying information needs and communication objectives to be met. There will also be different emergency and crisis management audiences, including the general population at risk and the government and public service sectors. Among these are medical practitioners, specialists, and other health workers, who will not only be needed more than ever for their services, expertise, and communication-access roles with patients and families, but who will also need advanced-priority communication training and disease-specific knowledge about caring for their own well-being, as they will be placed directly in harm’s way via exposure to infected patients during an outbreak.

The H1N1 Influenza Story, 2009 to Present

To anyone who may be new to the task of crisis communication preparedness for pandemic response, the Centers for Disease Control and Prevention (CDC)'s historical timeline and outline of events and developments from 2009 to present regarding the novel H1N1 "swine" flu pandemic presents a great case study overview of public health response. Many of the key entities in scientific and public-health response, its processes, functions, and turning points that potentially compose a global, national, and local framework for pandemic response are listed and detailed here, as pertained specifically to this unique outbreak in our recent history. It is posted on the CDC website[1].

The section, "CDC Communication Activities During the 2009 H1N1 Pandemic" on this page gives a summary of the massive amount of collaborative communication that took place, at some points during a continuous 24-hour cycle, and with a definitive overall communication strategy in place.

Although millions were affected by this outbreak, it is fortunate that a vaccine was developed and made available in response. H1N1 is now a common influenza strain that can be contracted from human-to-human. In 2009, this pandemic did not result in the number of fatalities that were anticipated at its outset. But, like seasonal influenza, it continues to pose a real threat for certain at-risk populations, and the number of cases reported in the 2014 season is of concern. It is advised to keep up-to-date on recommended educational and preparedness programs that are available on CDC's website, and to be aware of all novel influenza strains which emerge. "What You Should Know for the 2014-2015 Influenza Season[2]" is a recently updated page on the site.

Ebola Virus Disease in West Africa

As of July 17, 2014, the Ebola virus disease outbreak has infected more than 1,048 people, claiming 632 lives, within three countries in West Africa (Guinea, Liberia, and Sierra Leone). According to a recent statement distributed by the World Health Organization (WHO), the current outbreak is classified as the deadliest epidemic of this disease on record. It is one of the most virulent diseases in the world and is lethal in 90 percent of cases. There is no vaccine.

[1] http://www.cdc.gov/h1n1flu/cdcresponse.htm#CDC_Communication_Activities
[2] http://www.cdc.gov/flu/about/season/flu-season-2014-2015.htm

The World Health Organization (WHO) is providing detailed information and important links and updates at its Epidemic and Pandemic Alert and Response site[3].

In the daily news are stark accounts of the current challenges there, and urgent calls for world leaders to assist. In both local and world response to this crisis, strategic communication, and outreach are critical components in the struggle to contain the spread of this devastating infectious disease. On July 18, 2014, a Washington Post news story featured an erroneous but very real quote as its headline: "There is no such thing as Ebola[4]," describing some of the communication and psychological challenges faced in areas now stricken with this terrifying disease.

MERs and SARS

"…because we live in an interconnected world, diseases, like MERS, can make their way…even when they begin a half a world away."
– Centers for Disease Control and Prevention (CDC)

In May 2014, the CDC confirmed two unlinked cases of Middle East Respiratory Syndrome (MERS) in the U.S., in two states. Both of the infected patients were healthcare workers who had worked in Saudi Arabia. The CDC updates "MERS in the U.S.[5]" information on its site. Other similar pages exist on the World Health Organization's site, for other sub-issues and types of outbreaks being tracked.

Some have speculated that MERS might eventually become the next SARS (Severe Acute Respiratory Syndrome)—a pandemic that was first identified in 2003. The first severe and readily transmissible new disease to emerge in the 21st century, SARS infected more than 8,000 people worldwide, causing more than 700 deaths. It highlighted the speed with which infectious diseases can now cross international boundaries. The U.S. National Library of Medicine at the National Institutes of Health recently published "Planning for Pandemics: Lessons from the Past Decade[6]":

This fascinating paper published on July 8, 2014, written by Belinda Bennett and Terry Carney, outlines major worldwide developments that followed the SARS outbreak, with particular insights as to international law, mandates for information sharing, and security concerns within countries affected by a pandemic.

---

[3] http://www.who.int/csr/disease/ebola/en/
4 http://www.washingtonpost.com/news/morning-mix/wp/2014/07/18/there-is-no-such-thing-as-ebola/
5 http://www.cdc.gov/coronavirus/MERS
6 http://www.ncbi.nlm.nih.gov/pubmed/25000924

Pandemic Influenza

Although *seasonal* influenza outbreaks can cause a very high cumulative number of deaths in total in a given year, a different *pandemic* variety of the influenza virus is a matter of grave concern as well. The devastating 1918 flu pandemic claimed an estimated 40 to 50 million deaths worldwide.

Like its predecessors, the next pandemic flu will be all of the following, combined:

1. A disease outbreak affecting multiple continents, and (usually) large numbers of individuals
2. A completely new, emerging influenza virus
3. An infection against which people have little or no immunity at all
4. A variety of influenza virus for which there is no existing vaccine.

A specific modern challenge for crisis communication during an influenza pandemic will be that there will be ongoing confusion attributed to people's experience and understanding of "the flu." There are important and frequently confused differences between the seasonal flu, avian flu, and what will be that future (as yet unknown) pandemic flu strain. Assumptions will be made regarding symptoms, diagnosis, treatment, communicability, and mortality rates of the flu virus variety being experienced, and these assumptions may be based, incorrectly, on information pertaining to other flu viruses. In a crisis of this kind, it is typical that most people will not begin to try to learn the correct details until and unless the disease "hits close to home," and becomes relevant to their own circumstance. Meanwhile, those being exposed to any virulent infection may not know they are exposed until they or someone close to them becomes ill. As a result, it will be recommended in crisis communication during flu pandemic to educate communities and constituents to these differences frequently and regularly throughout all affected communities and on a repeated basis.

According to the CDC, the following comparison information about flu types should be expected to be a continual challenge for communication. The agency advises, “Make distinctions clear in all messaging. Work with media who have large reach to ensure distinctions are made.”

The Flu: Seasonal? Avian? Pandemic?	
Seasonal flu	*Seasonal flu is the common flu. It’s respiratory and spreads from person to person. Most individuals have some immunity to it. A vaccine is available.*
Avian flu	*Avian flu (also called bird flu) is caused by certain related influenza viruses. These viruses are natural among wild birds. The H5N1 variant of avian flu kills domestic fowl. It can be spread from birds to humans. Humans have no immunity. No vaccine is presently available.*
Pandemic flu	*Pandemic flu is a form of the influenza virus with the defining feature of spreading so extremely easily that it becomes worldwide.*

A pandemic influenza infection is often new to humans. People may have little to no latent immunity to the strain. At the onset of a pandemic outbreak, until scientific detail emerges about the novel strain, there may be little, if any, effective stockpiled vaccine supply, antiviral agents, or other curative medicine available. As sufficient information becomes available and shared through medical and scientific networks tasked with collecting data on the disease, medicines may eventually be created based on currently evolving pathology, but this may require at least a minimal passage of time for that information to become discovered. In fact, there could be several months’ wait for vaccine availability. Additionally, if the pandemic is sudden, severe, and spreading quickly, there will be surges in demand for emergency and hospital care, emergency supplies such as protective respirators, and medicines such as antibiotics for secondary infection. As such, the first waves of victims, their families, and other contacts will need specifically administered educational advice, recommendations, care, and treatment. Grief counseling and outreach will entail additional considerations for stricken communities of survivors who may be facing not only recent loss, but ongoing future loss and the threat of falling gravely ill, themselves.

An excellent source for training on this topic is available free of charge on the Centers for Disease Control website. It is called Crisis & Emergency Risk Communication (CERC) Pandemic Influenza Training[7]. This 75-page training module web page is maintained by the Office of Public Health Preparedness and Response (OPHPR), and provides a great overview of the vital role of communication during a pandemic.

Other Currently Known Pandemic Risks

In addition to the particular epidemics and pandemics described above, other concerning risk phenomena are being currently tracked. As recently as July 22, 2014, a news article appeared on USA Today with the headline, "Antibiotic resistance could be 'next pandemic,' CDC says[8]." This article describes the problem of antibiotic resistance in modern populations, and addresses recent significant safety lapses in research laboratories that have prompted an international petition by concerned scientists.

A Future Pandemic is Inevitable, Yet Will Be Largely Unpredictable

How to Prepare

Modern science has made tremendous strides in the creation of vaccines and curative drugs to fight infectious disease, and the past decade has shown an advance of new globally connected cooperatives in health and safety responsiveness. But, just as we are potentially better prepared than ever to respond to a pandemic should it occur, we are also possibly much more at risk of pandemic occurrence than we have been in the past. Modern transportation options have resulted in the reality that great distances (continents, oceans, mountain ranges) no longer serve as effective barriers to the geographic spread of an epidemic via human-to-human contact. And, it has been noted that deforestation and human encroachment into areas previously inhabited only by animals continues to create new exposures to viruses to which humans have little or no existing immunity.

To even accurately *anticipate* that a virulent infectious disease may be imminent or already present in one's locale or among one's community of constituents requires a maintained connection to sources of accurate information and knowledge-sharing.

[7] http://emergency.cdc.gov/cerc/training/panflu
[8] http://www.usatoday.com/story/news/nation/2014/07/22/antibiotic-resistance-bacteria-drugs-cdc-lab-safety-mers-anthrax/13005415/

A disease with the potential to become pandemic in nature may be unprecedented and unpredictable when it breaks. As such, to be optimally prepared for pandemic crisis communication requires pre-existing connections to (and relationships with) accurate and reliable expert resources that continuously monitor new and ongoing potential pandemic threats, both locally and throughout the world. For public health and public service sector resources, this entails information resources that:

- Understand and regularly monitor how new disease or epidemic threat(s) may pose the potential to become pandemic. They can confirm that the disease:
  - Is of an infectious nature, and has spread from person-to-person
  - Is easily and quickly spread
  - Does not have ample existing vaccine or other curative treatment
  - Has appeared in multiple populations throughout the world.

- Understand how the disease is (or is not) being effectively contained within affected countries

- Understand pertinent disease factors, such as different populations' and individuals' immunity (and lack of immunity), as well as their likely exposure to disease agents and disease carriers or vectors.

Communication and WHO Pandemic Phases

WHO pandemic phases (WHO 2009), specifically related to influenza pandemic, are outlined here, as an example, from the European Centres for Disease Control (ECDC)[9].

During WHO Phases 1, 2 and 3
√ Complete communication planning, and initiate communication activities which relay the real and potential risks.
During WHO Phase 4
√ Promote and communicate recommended interventions to prevent and reduce population and individual risk.
During WHO Phase 5
√ Continue providing updates to the general public and all stakeholders on the state of pandemic and measures to mitigate risk.
During WHO Post Peak Period
√ Regularly update the public and other stakeholders on any changes to the status of the pandemic.
During WHO Post-Pandemic Period
√ Publicly acknowledge contributions of all communities and sectors and communicate the lessons learned; incorporate lessons learned into communication activities and planning for the next major public health crisis.

Managing a Worldwide Crisis Phenomenon Entails Multicultural Knowledge, Connection

As education, health, service, government, and regulatory systems around the world differ, so, too, does the type of response and information-sharing that is critical to responding to and containing pandemic outbreak. Cultural aspects of communication continue to unfold in global understanding, and they require ongoing research and outreach as to not only multiple language needs, but also translation issues, sensitivity to varying cultural beliefs and customs, and, of course, viable access to needed health services. Pandemic outbreak does not selectively occur. It will reach not only areas where science, technology and advanced crisis communication can aggressively and adequately respond, but also areas where economies and educational standards are

9 http://www.ecdc.europa.eu/en/healthtopics/pandemic_preparedness/basic_facts/pages/who_pandemic_phases.aspx

suffering – and where populations are nonetheless exposed to and are themselves vectors of dangerous infectious disease.

The Demands on Healthcare

Crisis communication preparedness for disaster in the healthcare setting is a field that, in the U.S. and worldwide, is under much-needed overview due to not only such widespread events as Hurricane Sandy in the U.S., but also with regard to pandemic preparedness in light of the 2009 H1N1 pandemic and other concerns. A pandemic outbreak can overwhelm medical facilities wherever it occurs, possibly resulting in sudden and potentially significant shortage of personnel to provide essential community service. Infrastructure and support systems may be slowed down or break down for long periods. Critical supply chains and product distribution chains may also be disrupted.

Healthcare workers in particular face the challenge of responding to many facets of pandemic preparedness and education in their employment capacity, and need to be highly trained and prepared well in advance in order to protect not only their patients and clients, but themselves and their own families. OSHA published in 2009, "The Pandemic Influenza Preparedness and Response Guide for Healthcare Workers and Healthcare Employers[10]," a 103-page resource available on the OSHA site.

Other Significant Factors

It is important to anticipate that during a pandemic outbreak, public health is not the only sector affected. Every sector is affected. Potential impacts include transportation and public place closures, significant travel and trade disruptions, border closings, disruptions in transportation, shipping, deliveries, travel, and more. There may also be disruptions to commodities and international markets. As such, preparation for pandemic outbreak can be considered to encompass preparation for every type of crisis communication demand, combined.

As outlined, communication during a pandemic outbreak will be contingent upon large amounts of new and unfolding information that is specific to matters of public health. However*, it will not be health information alone* that will need to be communicated before, during, and after the crisis. A pandemic will disrupt business routines, work schedules, deliveries, production, sales, business travel, and a wide variety of other operational processes. As employees become ill, or are providing care for sick children, spouses and parents, increasing numbers of them will be unable to report for work during longer and longer periods during the outbreak. As it is estimated that 40% of any workforce will be absent once a pandemic is occurring, all facets of every type of an organization's functioning will be impacted, along with variables that depend upon

[10] https://www.osha.gov/Publications/OSHA_pandemic_health.pdf

outside organizations' services which will also have been impacted. As children and teachers become ill or absent, it may be necessary for schools to close, resulting in employees preoccupied with child care rather than reporting for work. This same absenteeism scenario will most likely result in disruptions and delays at the airport, trains, and municipal transportation. A loss of 20%, 30% or 40% of truck drivers due to a pandemic could result in massive delays and disruptions in many sectors. In a severe outbreak, there may be periods during which shops, markets, and basic essentials are unavailable. All of this suggests that it will be more critical than ever to sustain effective two-way communication with employees, customers, suppliers, distributors, vendors, communities, schools, students, and those responsible for maintaining critical infrastructure.

Every organization (whether a business, school, agency or not-for-profit), must plan and prepare for communication during the chaos and confusion that will typify the peak periods of a pandemic. These plans should cover a wide range of operational information needs. For example, what policies should be communicated about compensation for absent employees, due to their illness versus that of a family member? What are the contingency plans when necessary supplies from a vendor whose operation has shut down are not available? How will information be shared if higher-level management is impacted and not reachable at the outset of the crisis? For business, there are decisions that will need to be communicated about employee travel, liability insurance, health/ medical insurance issues, and more. Educational institutions will need to communicate with students/families about closures, attendance, and other expectations. The list continues. Every organization will need a plan, as well as access to clear, coordinated crisis communication, including strategically written, effective messages, and message-delivery options that have been prioritized and arranged for well in advance. This will provide options and capabilities for viably carrying out vital, strategic management of the impacted organization's functions through the pandemic crisis from beginning to end.

Conclusion

Public health threats and risks may seem like science fiction, but due diligence demands that we plan for all public health contingencies, including epidemics and pandemic outbreaks. Such events present dramatic consequences for health and safety, as well as business continuity and post-event recovery. This includes carefully planning for coordination, communication and sustained contact with key constituents and audiences before, during, and after major public health disruptions. Such planning must include strategically prepared and managed crisis communication messaging options not only about health-related matters, but also pertaining to every major aspects of business and organizational functioning that will impacted.

About Robert C. Chandler, Ph.D.

Robert C. Chandler, Ph.D. is an internationally recognized author and communication expert specializing in the area of crisis and risk communication, including leadership and logistical communication issues related to disaster crises. Dr. Chandler's research in this field is internationally recognized, and his expertise has been tapped by government, health and community agencies and major world enterprises alike, from the American Red Cross and the United Way, to the Department of Defense, Verizon and American Airlines. As professor of communication and director of the Nicholson School of Communication at the University of Central Florida (UCF), Dr. Chandler notably created the annual International Crisis and Risk Communication Conference (ICRC). Hosted by the Nicholson School and UCF, the 2014 ICRC event highlighted "The Human Factor" of crisis. More than 150 crisis management professionals met to share knowledge related to the significant need for strategic collaboration in mitigating and managing the challenges and obstacles that converge when a major crisis unfolds. The 2015 ICRC, slated for Mar. 2-4, will center on "Accountability, Metrics and Critique." (Visit www.icrcconference.com for the most up-to-date details.)

Dr. Chandler is an award-winning author of nine books, including Emergency Notification (2010); Pandemic: Business Continuity Planning Priorities for the Coming Outbreak (2005); Surviving the Pandemic: A Communication Management Guide for Business (2009). His conference speaking engagements have included the Disaster Recovery Journal's spring and fall world conferences on disaster recovery, the International Security Conference, the Government Technology Conference and the National Student's Safety and Security Conference, as well as numerous state-specific events. Through these events and numerous others, he has addressed attentive audiences around the globe ranging from Warsaw to Sydney and Seoul to St. Petersburg.

Dr. Chandler earned his Ph.D. at the University of Kansas, his M.A. at Wake Forest University and his B. A. at Harding College.

Robert C. Chandler, Ph.D., Director

Nicholson School of Communication | University of Central Florida

P. O. Box 161344 | Orlando, FL 32816

Telephone 407.823.2683 | Fax 407.823.6360

Email: rcchandl@mail.ucf.edu

www.everbridge.com

About Everbridge

Everbridge provides a unified critical communication suite that helps clients be better prepared, make better decisions, and respond quickly and confidently during disruptive events. When an incident happens, whether it's a natural disaster or an IT service outage, we automate communications to ensure that the right messages get to the right people at the right time.

Widely recognized by analysts as the market leader, Everbridge solutions are trusted by clients in all major industries and government sectors to connect with over 50 million people around the world.

THE ONLY END-TO-END PLATFORM

- **Planning**: Everbridge is easy to set up, maintain, and organize, meaning that you're always ready for a quick, coordinated response. Everbridge ensures that the right messages get to the right people - with the most advanced opt-in portal on the market, streamlined integration with internal and external data sources, and simple group and contact management.

- **Assessment**: When trouble strikes, you need rich insight, presented simply - so you can quickly assess potential impact and make an informed decision to avoid loss. Everbridge offers the only solution on the market that meets these demanding requirements, with the most advanced interactive dashboard in the industry.

- **Response**: In critical situations, ease-of-use can mean the difference between an effective response and a mistake that carries serious consequences. Everbridge is engineered to be simple to use under pressure, with a user interface that accelerates time-to-message and reduces the likelihood of errors.

- **Delivery**: Even during large-scale disruptions, Everbridge stays on. The most advanced platform in the industry ensures that you reach your contacts - every time. And with worldwide coverage and capabilities, including globally local calling infrastructure and data storage, we're ready to support you wherever your people are in the world.

Visit www.everbridge.com to learn more.