CRISIS + EMERGENCY RISK COMMUNICATION

2012 EDITION

BE FIRST. BE RIGHT. BE CREDIBLE.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

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2012 EDITION

This manual introduces the reader to the principles and practical tools of crisis and emergency risk communication (CERC). Principles in this manual adapt (1) writings of classical rhetoricians; (2) a wealth of modern crisis, issues management, communication theory, and psychological theory; and (3) lessons learned from the real and often painful world of experience, old-fashioned trial and error.

CERC addresses a number of topics critical to successful public, partner, and stakeholder communication during crises and emergencies. This is not intended to be an in-depth manual on risk communication, issues management, crisis communication, or disaster communication. It is an amalgamation of all of these, incorporated from theory and practical applications. CERC draws on the work of many experts including Drs. Peter Sandman and Vincent Covello; therefore, no single chapter is a complete source for a specific discipline. The chapters are meant to help those who are charged with these responsibilities, but who may not be steeped in these subjects, to manage the task of planning and implementing CERC activities. When possible, we have provided resource sites that offer more in-depth materials on a particular subject.

CERC is the attempt by public health professionals to provide information that allows individuals, stakeholders, and entire communities to make the best possible decisions for their well-being during a crisis or emergency. CERC includes communicating to these groups regarding decisions made by response organizations within nearly impossible time constraints. CERC principles teach us to accept the imperfect nature of choices as the situation evolves.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

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Dear Reader,

In 2002, the Centers for Disease Control and Prevention (CDC) decided to fill a critical training gap and resource need and developed the Crisis and Emergency Risk Communication manual. When it was written, the central role of crisis communication in public health responses to crises was beginning to be recognized. Since that time, thousands, perhaps tens of thousands, of health, emergency management, and government professionals have been trained using the original CERC Manual and associated materials in the United States, Canada, Europe, and many other locations.

While CERC principles are timeless, new information has been developed, new examples have emerged, and new understandings have been created. Crisis communication is by definition a very dynamic field, and for any work to maintain its state-of-the art relevance, revisions and updates are required.

This revision, Crisis and Emergency Risk Communication: 2012 Edition is an effort to update and, in some cases, expand the original CERC manual. All revisions were informed by two principles. First, the revisions were grounded in the research literature. Second, we worked to develop and present the material in a practical, applications-oriented framework. We are grateful to our advisory board for helping ensure that the principles reflect state-of-the-art knowledge.

We would like to acknowledge the original contributors to the CERC manual listed in the following sections as well as CDC staff and the advisory board. In addition, we wish to acknowledge the contributions of Dr. Michael Palenchar (University of Tennessee) for his work on Chapter 9, CERC, Social Media, and Mobile Media Devices, and Professor Lance Gable (Wayne State University) for his work on Chapter 13, Media and Public Health Law. In addition, Dr. Timothy Sellnow (University of Kentucky), Dr. Jeanette Sutton, and Dr. Vicki Friemuth (University of Georgia) provided additional support, guidance, and content. Several members of the CDC staff have provided critical advice and support. We wish to also especially thank Laura Espino from the National Public Health Information Coalition (NPHIC) and the NPHIC staff for their support.

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It is our hope Crisis and Emergency Risk Communication: 2012 Edition will continue the process of developing new understanding, appreciation, and capacity for public health professionals to prepare for and respond to crises and disasters.

Sincerely,

Barbara Reynolds, Ph.D.
Centers for Disease Control and Prevention

Matthew Seeger, Ph.D.
Wayne State University

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362 Chinese Center for Disease Control and Prevention (China CDC) (http://www.chinacdc.cn/en/)

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362 Department of Homeland Security (DHS) (http://www.dhs.gov/index.shtm)
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375 National Voluntary Organizations Active in Disaster (National VOAD) (http://www.nvoad.org/)
376 The Institute of Medicine's Forum on Medical and Public Health Preparedness for Catastrophic Events (http://iom.edu/Activities/PublicHealth/MedPrep.aspx)

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First Edition Authored By:

Barbara Reynolds, Ph.D.
Centers for Disease Control and Prevention

In collaboration with:

Julia Hunter Galdo and Lynn Sokler
Prospect Center of the American Institutes for Research

2012 Edition Authored By:

Barbara Reynolds, Ph.D.
Centers for Disease Control and Prevention
Matthew Seeger, Ph.D.
Wayne State University

Chapter 9 Authored By:

Michael Palenchar, Ph.D., University of Tennessee

Chapter 13 Authored By:

Lance Gable, J.D., M.P.H., Wayne State University
Ralph Holsinger
Babette Neuberger
Tom Christoffel

First Edition Edited by:

Vicki F. Freimuth, Ph.D., Centers for Disease Control and Prevention
Alicia Eberl-Lefko, M.H.S., CHES, AIR/Prospect
Linda Weinberg, RD, AIR/Prospect
Elizabeth Williams, AIR/Prospect
Chad R. Wood, M.B.A., Centers for Disease Control and Prevention
Anna Zawislanski, M.P.H., AIR/Prospect

2012 Edition Edited by:

Vivi Abrams, M.P.H., Centers for Disease Control and Prevention
Dahna Batts, M.D., Centers for Disease Control and Prevention
Jennifer Brooks, M.P.H., Centers for Disease Control and Prevention
Stephanie Church, M.A., Wayne State University
Joanne Cox, M.C., Centers for Disease Control and Prevention
Molly Gaines-McCollom, M.P.H., CHES, Centers for Disease Control and Prevention
Bill Hall, Director, News Division, Department of Health and Human Services
Arnetra Herbert, M.S., Centers for Disease Control and Prevention
Denise Hofmann, Centers for Disease Control and Prevention

Sharon KD Hoskins, M.P.H., Centers for Disease Control and Prevention
LaBrina Jones, M.P.A., Centers for Disease Control and Prevention
Barrett Kanne, Centers for Disease Control and Prevention
Judith Kanne, RN, Centers for Disease Control and Prevention
Jonathan Lynch, Centers for Disease Control and Prevention
Jason McDonald, Centers for Disease Control and Prevention
Sandriel McKnight, M.P.A., Centers for Disease Control and Prevention
Maria-Belen Moran, Centers for Disease Control and Prevention
Dagny Olivares, M.P.A, Centers for Disease Control and Prevention
Laura Pechta, M.A., Centers for Disease Control and Prevention
Roger Pippin, M.A., Centers for Disease Control and Prevention
Kara Stephens, M.S.A., Centers for Disease Control and Prevention
Taka L. Wiley, M.P.A., Centers for Disease Control and Prevention
Gail Williams, M.P.H., Centers for Disease Control and Prevention
Jude Wilson, M.A., Centers for Disease Control and Prevention
Mark Wooster, Ph.D., Centers for Disease Control and Prevention

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Bret M. Atkins, M.A.
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Varian Brandon
Bernadette Burden
Bruce Burney
Joan Cioffi, Ph.D., M.S., BPharm
Linda Cockrill
Galen Cole, Ph.D., M.P.H., M.A.
Judith Courtney, M.P.S., M.A.
Bill Crews
Dave Daigle, M.A.
John Doyle, M.P.A.
Rita Ford
Vicki Freimuth, Ph.D.
Judy M. Gantt, M.Ed.
Donna Garland
Kay Golan
Barbara Govert, M.S.
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Gail Hayes, M.S.
Meredith Hickson, M.P.H.
Alan Janssen, M.S.P.H.
Ali Khan, M.D., M.P.H.
Sean Kaufman, M.P.H., CHES
Richard W. Klomp, M.O.B., M.S., LPC, BCPC
Cheryl Lackey, M.P.H., CHES
Maureen Lichtveld, Ph.D.
Max Lum
Katherine Lyon Daniel, Ph.D.
Barbara McCollum
Jennifer Morcone
Joan Morrissey
James “Andy” Mullins, D.V.M.
Phil Navin
Glen Nowak, Ph.D.
Ralph O’Connor, Ph.D., M.D.,
Claudia Fishman Parvanta, Ph.D.
Bobbie Person, M.P.H.

Bill Pollard
Christine Prue, M.S.P.H., Ph.D.
Susan Robinson, M.A.
Von Roebuck
E. Roberta ("Bobbi") Ryder
Cyndi Shaffer
Melissa Shepherd
Tom Skinner
Diana Swindel
Amanda Tarkington, M.C.
Oscar Tarrago, M.D., M.P.H.
Jana Telfer, M.A.
Marsha Vanderford, Ph.D.

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Laura Espino, Georgia
Thom Berry, South Carolina
Kim Deti, Wyoming
Jeanene Fowler, Arizona
Bill Furney, North Carolina
Nanci Gonder, Missouri
Larry Hill, Virginia
Roger Naylor, Georgia
Rita Obey, Texas
Manuel Rodriguez, Washington, D.C.
Mari-jean Siehl, Ohio
Thomas Slater, New Jersey
Kristine A. Smith, M.A., New York
Kevin Teale, M.A., Iowa
Nancy Erickson, Vermont

Public Health Partners and Associations

David Bergmire-Sweat, American Social Health Association
Steven Berry, Federal Bureau of Investigation, Department of Justice
Bonnie Piper, Environmental Protection Agency
Clete DiGiovanni, Jr., M.D., National Naval Medical Center
Ronnie Goodstein, Penellis County, FL, Department of Health
Bill Hall, Department of Health and Human Services
Stacey Hoffman, Georgia Department of Public Health
Robert DeMartino, M.D., Substance Abuse and Mental Health Services Agency
Marc Wolfson, Department of Health and Human Services
Donald Stephens, Atlanta American Red Cross
William Reynolds, Atlanta American Red Cross
Darren Irby, American Red Cross
Caroline Hall, American Red Cross
Sabrina Edgington, M.S.S.W., National Healthcare for the Homeless Council
Mollie Melbourne, M.P.H., MEP, National Association of Community Health Centers

Professional Consultants

Vincent Covello, Ph.D.
Susan W. Hodges, B.S.
Peter Sandman, Ph.D.
Ruth Schultz, M.H.A., CHES
Tim Tinker, Ph.D.

University Reviewers, Authors, and Consultants

William Benoit, Ph.D., University of Missouri
Thomas Carlton, Ph.D., Vanderbilt
Stephanie Church, M.A., Wayne State University
Louise Comfort, Ph.D., University of Pittsburgh
Kathleen Fearn-Banks, Ph.D., University of Washington
Baruch Fischhoff, Ph.D., Carnegie Mellon University
Vicki Friemuth, Ph.D., University of Georgia
Lance Gable, J.D., M.P.H., Wayne State University
Dennis S. Gouran, Ph.D., Penn State University
Brenda Granillo, M.S., University of Arizona
Keith Hearit, Ph.D., Western Michigan University
Robert Heath, Ph.D., University of Houston
Tara O'Toole, M.D., Johns Hopkins University
Michael Palenchar, Ph.D., University of Tennessee
Laura Pechta, M.A., Wayne State University
Charles Perrow, Ph.D., Yale
Elizabeth Petrun, M.A., University of Kentucky
Jasmin Riad, Dromedary Disasters International, Inc.
Matthew Seeger, Ph.D., Wayne State University
Timothy L. Sellnow, Ph.D., University of Kentucky
Don Stacks, Ph.D., University of Miami
Jeannette Sutton, Ph.D., University of Colorado, Colorado Springs
Robert Ulmer, Ph.D., University of Arkansas–Little Rock
Steven Venette, Ph.D., University of Southern Mississippi
Shari Veil, Ph.D., University of Kentucky
Kim Witte, Ph.D., Michigan State
Debra Worley, Ph.D., Indiana State

Prospect Center of the American Institutes for Research

Charles Buki, Consultant
Tom Hendrick, Audiovisual Consultant
Lisa E. Scaun, M.S.W.
Nicole M. Wise, M.A.

Support Staff

Michael Burke, Ph.D., Research and Evaluation
Simani Price, Ph.D., Research and Evaluation
Shawna Williams, Analyst

Creative Department

Martha Mater, Traffic Manager
Mitch Nydish, Consultant Graphics Artist

Publications Department

Susan Bratten, Senior Editor
Kenneth Halter, Publications Manager
Lissa Hurwitz, Consultant Editor
Angele Jehle, Production Coordinator
Patricia Louthian, Document Specialist
Karen Ward, Consultant Document Specialist
Francesca Oneto, Presentation Specialist

Production Department

Rin London, Production Assistant
Drew Melton, Production Specialist

Oak Ridge Institute for Science and Education (ORISE)

John H. Sorensen, Ph.D., Oak Ridge National Laboratory

Logistics Management Institute (LMI)

Joseph Karwatka, M.S.
John W. Yasalonis, M.S., CIH, RHSP

CRISIS + EMERGENCY RISK COMMUNICATION
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Chapter 1: Introduction to Crisis and Emergency Risk Communication

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This chapter will promote understanding in the following areas:

- Types of hazards and contributing factors that increase the risk of crisis
- Definitions of crisis and emergency risk communication (CERC) concepts
- The lifecycle of CERC and how communication works at each stage

"CERC is a way to talk to people, a set of principles that allow us, in the heat of a crisis when the unthinkable happens, to be able to get a message through to people in a way that they can actually understand it and act on it."

Dr. Barbara Reynolds, Centers for Disease Control and Prevention

Communicating During a Public Health Crisis

The public wants to know what the responders know during a public health crisis. They view every move and watch every passing emotion of those responding during a disaster, crisis, or emergency. In a crisis, every word counts. Our job as public health and emergency communicators is to offer the information the public needs and counter some of the harmful behaviors that are common during an emergency, so we can effectively support the public, our colleagues, and the organizations that are offering help.

The material here cannot promise that you, as a community leader faced with an emergency, crisis, or disaster, will overcome all communication challenges in a crisis by reading this book. However, by applying crisis and emergency risk communication (CERC) principles, you can learn what to say, when to say it, and how to say it to help you preserve or win the public's trust. More importantly, it can save lives.

CERC is a term used to cover both the urgency of crisis communication and the need to explain risks and benefits to stakeholders and the public. Today's public and your stakeholders demand immediate and credible communication in real time during a crisis response.

"We will always be giving people the best information we have and the best recommendation based on what we know the best information is right now. That's one of the ways you can be first and be credible, because it sets the expectation that things will change and we are working to learn more. That's always a challenge, but I think it is our best practice."

Dr. Marsha Vanderford, Centers for Disease Control and Prevention

Throughout this book, six principles[1] of effective crisis and risk communication are emphasized:

1. **Be First:** Crises are time-sensitive. Communicating information quickly is almost always important. For members of the public, the first source of information often becomes the preferred source.
2. **Be Right:** Accuracy establishes credibility. Information can include what is known, what is not known, and what is being done to fill in the gaps.
3. **Be Credible:** Honesty and truthfulness should not be compromised during crises.
4. **Express Empathy:** Crises create harm, and the suffering should be acknowledged in words. Addressing what people are feeling, and the challenges they face, builds trust and rapport.
5. **Promote Action:** Giving people meaningful things to do calms anxiety, helps restore order, and promotes a restored sense of control.
6. **Show Respect:** Respectful communication is particularly important when people feel vulnerable. Respectful communication promotes cooperation and rapport.

Well-planned and well-executed CERC, fully integrated into every stage of the crisis response, helps ensure that limited resources are managed well and can do the most good.

Types of Disasters

The most common disasters[2] are natural disasters, but the line between natural and manmade often blurs, as it did with Hurricane Katrina. Based on the disaster, both CDC and the Federal Emergency Management Agency (FEMA) have grouped them by type (see lists of specific types extracted from publications by both agencies in Table 1–1 and Table 1–2 at the end of this chapter).

While there are many types of disasters, most planners try to take an all-hazards approach. Most planners create general plans that are designed such that they can be adapted to specific situations, rather than trying to plan separately for every possible type of disaster. In addition, all disasters are managed locally until local resources are overwhelmed, at which point state, regional, national, and international resources are deployed. While an all-hazards approach works in operational response, there will be important distinctions in the way communication is executed by type of disaster and these differences require consideration during planning.[3]

A Changing World

Disasters test emergency response capabilities. The ability to deal effectively with disasters is becoming more relevant, because the factors that tend to increase risks are also increasing.

Increased Population Density in High-risk Areas

As areas become more densely populated, more potential victims are at risk when a disaster strikes.[4] Part of this increase in density occurs in disaster-prone areas including the following:

- High-risk floodplains
- Locations near earthquake faults
- Coastal hurricane areas
- Unstable hillsides
- Regions subject to wildfires
- Areas adjacent to hazardous waste landfills, airports, and nuclear power plants

Increased Technological Risks

New technologies are adding to the list of disaster agents at an ever-increasing rate.[5] We live in a society that depends on computers and other products of modern technology:

- Approximately 2.2 billion tons of hazardous chemicals[6] travel annually in this country, often over old bridges and decaying railroad tracks. As the amount of hazardous chemicals being transported increases, so does the risk of a spill or airborne release of those chemicals.
- The U.S. is becoming more dependent on technology, making society even more vulnerable to problems, such as mass power outages or transportation disruptions.
- Complex technology can interact in unpredictable ways, creating added danger.

Our Aging U.S. Population

The U.S. is on the brink of a longevity revolution. With this increase in the population of people over 65 comes a responsibility, as disasters of all kinds disproportionately affect older adults.[7] This is especially true when it comes to chronic diseases and disabilities. This aging population presents new challenges for disaster response, including medical requirements, mobility, and extra assistance with daily tasks.

- By 2030, the number of U.S. adults aged 65 or older will more than double to about 71 million.[8]
- The growing number and proportion of older adults places an increased demand on public health systems—medical and social services are taxed as well.[9]
- In 2004, 80% of Americans over 65 had at least one chronic condition, and 50% had two.[10]
- Over two-thirds of current health-care costs are for treating chronic illnesses.
- Among older Americans, chronic diseases use about 95% of our health-care expenditures.[11]
- A large body of evidence indicates that the health conditions and needs of older adults are different from other segments of the population.

Infectious diseases remain a danger to all people, no matter their age, gender, lifestyle, ethnic background, or economic status. They remain among the most common causes of suffering and death. These infections impose a huge cost to society. Since it is never certain when or where new diseases will arise, we must always be prepared.

Emerging Infectious Diseases and Antibiotic Resistance

In the years following World War II, it was widely believed that humans were winning the war against infections. We learned antibiotics could treat life-threatening bacterial diseases. Dreaded childhood diseases, such as polio, could be prevented through vaccinations. However, this hopefulness was premature. Listed are just a few events over the last 60 years that demonstrate that infections are here to stay:

- As early as the 1950s, penicillin began losing its ability to cure *Staphylococcus aureus* infections, also known as staph.[12]
- In the 1970s, there was a resurgence of sexually transmitted diseases.[12]
- Also during the 1970s, new diseases were identified, such as Legionnaires' disease, toxic shock syndrome, and Ebola. [12]
- At the same time, antibiotic-resistant bacteria became more common in hospitals, spreading to patients and into communities. [12,13]
- In 1981, AIDS was first reported by CDC.[14]
- Flu season remains a yearly threat. Experts say it is possible that a new pandemic strain might emerge that could span the globe and reduce the world's population.[15]
- In 1997, the avian influenza, H5N1, scare in Hong Kong raised the specter of a possible global pandemic and jolted the world.[16]
- The emergence of H1N1 in 2009 was yet another sign that a deadly pandemic is possible.[16]

Increased International Travel

International travel and trade play a role in the rapid spread of disease and the resistance to antibiotics. A microbe originating in Africa or Southeast Asia can arrive on North American shores within 24 hours. In the U.S., published reports show that the majority of multidrug-resistant typhoid cases originated in six developing countries.

The exact number varies, depending on population criteria and how city limits are defined, but according to one source,[17] as of January 2012, 26 cities worldwide had populations above 10 million. While there are many heavily populated cities in developed countries, experts suggest that future growth in urban areas will occur mainly in developing countries. These are where we are likely to see the following problems:

- Poverty
- Population density
- Lack of sanitation
- Bacteria and viruses growing and rapidly spreading

The threat from terrorism is real, ongoing, and evolving. State-sponsored terrorism appears to have declined recently, but transnational groups are emerging. They tend to have dispersed networks and decentralized leadership that is harder to disrupt. Increasingly, terrorists' acts are initiated and executed at lower levels and decentralized units.

Increased Terrorism[18]

Terrorists are increasingly adept and technically savvy in their ability to defeat counter-terrorism measures. As security around government and military facilities improves, terrorists are seeking out vulnerable targets for mass casualties. They do this according to well-conceived plans, such as:

- Employing advanced tools, such as improvised explosive devices
- Using strategies such as simultaneous attacks, which kill or injure many people at once

An act of biological or chemical terrorism may range from the dissemination of anthrax spores to intentional food product contamination. Accurately predicting when and how such an attack may occur is impossible. The probability of biological or chemical terrorism cannot be ignored. The possibility of mass causalities plus widespread social and economic disruption means threats must be taken seriously.

Defining Crisis and Emergency Risk Communication

Communication experts and theorists tend to develop very precise and narrow definitions for fields of communication. For the purposes of this book, the following terms are defined in ways that are consistent with the work of many communication researchers:

- Crisis communication
- Risk communication
- Issues management communication
- Crisis and emergency risk communication

These definitions will give you a firm foundation for understanding how CERC integrated these types of communication into a cohesive framework for crisis response. Communication expertise based on

study and practice can fulfill a basic need for public health professionals as they react to a public health emergency. This book reflects the special combination of "crisis and emergency risk communication." Together, they help us create effective strategies.

Crisis Communication

The term "crisis communication" is generally used in two ways:

1. It describes the communication activities of an organization or agency facing a crisis. They need to communicate about that crisis to their organization, various partners, and the public. Typically, a crisis:

   - Occurs unexpectedly
   - May not be in the organization's control
   - Requires an immediate response
   - May cause harm to the organization's reputation, image, or viability

   As an example, the 1984 Bhopal gas leak in India[19] was a crisis confronted by an organization that faced blame for the situation. The company faced legal challenges and negative public reactions for many years after the crisis. This organization faced some legal or ethical responsibility for the crisis (unlike a disaster, where, for example, a tornado does the damage). The public and many stakeholders judged the organization based on their actions throughout the response.

2. The term "crisis communication" is associated more with emergency management and the need to inform and alert the public about an event. In this case, crisis communication might refer to the community leaders' efforts to inform the public.

   For example, leaders might need to evacuate a community in advance of a hurricane. In this definition, the organization is not facing a threat to its reputation or image. The effort to inform and warn the public is universally recognized as important. Many public alert systems, like the old Emergency Broadcast System and the new Commercial Mobile Alert System are based on this form of crisis communication.

The underlying thread in both forms of crisis communication is that an unexpected and threatening event requires an immediate response. The content, form, and timing of the communication can help reduce and contain the harm or make the situation worse. Crisis may also imply lack of control by the involved organizations based on the timing of the incident.

Risk Communication

The field of environmental health elevated the prominence of risk communication. Through risk communication, the communicator hopes to provide the audience with information about the expected type (good or bad) and magnitude (weak or strong) of an outcome from a behavior or exposure. Typically, risk communication involves a discussion about adverse outcomes, including the probabilities of those outcomes occurring. In some instances, risk communication has been used to help an individual make a decision in response to many questions, including the following:

- Should I undergo a medical treatment?
- What are the risks of living next to a nuclear power plant?
- Do I elect to vaccinate a healthy baby against whooping cough?

In some cases, risk communication is used to help individuals adjust to something that has already occurred, such as exposure to harmful carcinogens, possibly putting them at greater risk for cancer. Risk communication would prepare people for that possibility. If warranted, the communication would offer steps to take to lower their chance of dying from cancer, such as screenings.

Issues Management Communication

Issues management communication can be similar to crisis communication. An issue is a public question that has generated some interest by stakeholders. Questions about vaccine safety, for example, have generated concern among some groups. Their worry has sparked a great deal of public debate. Issues management involves using communication to influence how the organization responds to the issue and how it is potentially resolved. In some cases, an issue can become a crisis. Issues managers have forewarning that an issue is developing. Issues may develop more slowly and continue over extended periods. Managers typically have more time to respond to issues than they would to a crisis. Again, the organization or agency is central to the event.

Crisis and Emergency Risk Communication

CERC combines the elements of crisis communication and risk communication as they are used during an emergency response. CERC involves experts who provide information allowing individuals or an entire community to make the best possible decisions about their well-being. Communicators must also help people accept the imperfect nature of choices during the crisis. CERC also differs from pure risk communication in that a decision must be made within a narrow time constraint. The decision may be irreversible, the outcome of the decision may be uncertain, and the decision may need to be made with imperfect or incomplete information.

Communicators must inform and persuade the public in the hope that they will plan for and respond appropriately to risks and threats. The work presented here shows that your organization should follow CERC principles when responding to a crisis. If you fail to use CERC, you may fail to effectively communicate key information that could save lives.

Emergencies, Disasters, and Crises

What do emergencies, disasters, and crises have in common? Simply that something bad has happened or is happening, that it is surprising on some level, and that an immediate response is required. When something bad or unexpected happens, it may be called an emergency, a disaster, or a crisis depending on who is involved, the magnitude, and the current phase of the event.

A crisis involves many players and, depending on the location and the nature of the event, different agencies and groups take different roles. Government agencies that may be involved in the response at some level include the following:

- Local public health agencies
- State public health agencies
- Federal public health agencies
- FEMA
- The U.S. Department of Homeland Security

> *"Numerous after-action reports from major incidents throughout the history of emergency management in our nation have cited communications difficulties among the many responding agencies as a major failing and challenge to policymakers."*
>
> *The National Emergency Communications Plan*

Other types of organizations that may be involved include the following:

- Police departments
- Fire departments
- Emergency medical services
- Health-care organizations
- Nongovernmental response organizations such as the American Red Cross
- Faith-based organizations
- Businesses

It is important to remember that at the center of any crisis are those individuals, groups, and communities most directly affected. All disasters are local. The community is the first and most important responder.

The role of government agencies is outlined by a set of federal guidelines called the National Incident Management System (NIMS).[20] NIMS is a national standard for organizing agencies and improving coordination of incident management operations. Communication is a key part of NIMS. It applies to creating systems where agencies can communicate with each other, what is called interoperability. It also ensures that good communication occurs with the public.

The Communication Lifecycle

Understanding the pattern of a crisis can help communicators anticipate problems and appropriately respond. For communicators, it's vital to know that every emergency, disaster, or crisis evolves in phases. The communication, too, must evolve through these changes. By dividing the crisis into the following phases, the communicator can anticipate the information needs of the media, agencies, organizations, and the general public. For each of these phases, specific types of information need to be created and delivered to your audience.

Figure 1–1. Crisis and Emergency Risk Communication (CERC) Lifecycle

Pre-crisis

- Be prepared.
- Foster alliances.
- Develop consensus recommendations.
- Test messages.

Initial

- Acknowledge the event with empathy.
- Explain and inform the public, in simplest forms, about the risk.
- Establish agency and spokesperson credibility.
- Provide emergency courses of action, including how and where to get more information.
- Commit to stakeholders and the public to continue communication.

Maintenance

- Help the public more accurately understand its own risks.
- Provide background and encompassing information to those who need it.
- Gain understanding and support for response and recovery plans.
- Listen to stakeholder and audience feedback, and correct misinformation.
- Explain emergency recommendations.
- Empower risk/benefit decision-making.

Resolution

- Improve appropriate public response in future similar emergencies through education.
- Honestly examine problems and mishaps, and then reinforce what worked in the recovery and response efforts.
- Persuade the public to support public policy and resource allocation to the problem.
- Promote the activities and capabilities of the agency, including reinforcing its corporate identity, both internally and externally.

Evaluation

- Evaluate communication plan performance.
- Document lessons learned.
- Determine specific actions to improve crisis systems or the crisis plan.

The movement through each of the phases will vary according to the triggering event. Not all crises are equal. The degree or intensity and longevity of a crisis will make a difference in the required resources and staff. An assessment for emergency communication response and a decision tree are provided in Chapter 4.

The Pre-crisis Phase

Communication objectives during the pre-crisis phase target communication and education campaigns. These campaigns inform the public and the response community. The communicator's job is to be prepared by facilitating the following:

- Monitor and recognize emerging risks.
- Educate the general public about the risks.
- Prepare the public for the possibility of an adverse event.
- Increase self-efficacy by suggesting actions that reduce the likelihood of harm.
- Provide warning messages regarding an imminent threat.
- Collaborate and cooperate by developing alliances with agencies, organizations, and groups.
- Develop consensus recommendations by experts and first responders.
- Create messages and test them for use in later stages.
- Build and test communication systems.

The pre-crisis phase is where the planning and preparation work is done. During this phase, your organization will:

- Predict and address the types of disasters you are most likely to face.
- Anticipate and develop likely preliminary answers to audience questions.
- Draft initial messages; specific details can be filled in later.
- Identify spokespersons, resources, and resource mechanisms well ahead of time.
- Practice following the response plan, using the messages you have already created, followed by refining the plan and messages as needed.
- Foster alliances and partnerships to ensure that experts are speaking in a coordinated manner (using one voice).
- Develop and test communication systems and networks.

The Initial Phase

Communication objectives during the initial phase include rapid communication to the general public and rapid communication to affected groups. These communication efforts seek to do the following:

- Convey empathy and reassurance. Reduce emotional turmoil.
- Designate crisis or agency spokespersons, and identify formal channels and methods of communication.
- Establish general and broad-based understanding of the crisis circumstances, consequences, and anticipated outcomes based on available information.
- Reduce crisis-related uncertainty as much as possible.
- Help the public understand the responsibilities of the various organizations involved in the response.
- Promote self-efficacy (explain to people that they can help themselves or reach a goal) through personal response activities, and share how and where they can get more information.

When communicating in the initial phases of an emergency, it is important to present information that is simple, credible, accurate, consistent, and delivered on time.

The initial phase of a crisis is characterized by confusion and intense media interest. Information is usually incomplete, and the facts are sparse. An information deficit exists. Channels of communication are often disrupted. It's important to recognize that information from the media, other organizations, and even within response organizations may not be completely accurate. It is important to learn as much about what happened as possible, to determine the organization's or agency's communication responses, and to confirm the magnitude of the event as quickly as possible.

In the initial phase of a crisis, you must be accurate while recognizing that not having all the facts available early will not alleviate responders from the responsibility of communicating, even if that is an honest "we don't know." Accuracy in what is released and the speed in which response officials acknowledge the event are critical at this stage.

One of the best ways to limit public anxiety in a crisis is to provide useful information about the event and tell the public what they can do. During the initial phase of an event, response organizations and spokespersons should take steps to establish their credibility. This is explored further in Chapter 5. Even when there is little information to offer, it is still possible to communicate how the organization

is handling the event and when more information will be available. Commit to the public that you will continue to provide new information as it becomes available.

At the very least, messages should demonstrate that organizations are engaged and addressing the issues directly. This means that approaches are reasonable, caring, and timely, and all available information is being provided. At the same time, the pressure to release information prematurely can be intense. In most cases, all information must be cleared by the appropriate leaders or designated clearance personnel before it's offered to the media. If clearance procedures are too slow or cumbersome, they should be challenged during exercises and in planning.

Although the types of information that people need will vary according to the specific crisis, in the initial phase of a crisis, an information vacuum often exists. People want that vacuum filled. They want timely and accurate facts about what happened, what is being done, and most importantly, what they should do. People will question the immediate threat to them, the duration of the threat, and who is going to fix the problem. Communicators should be prepared to answer these questions as quickly, accurately, and fully as possible while acknowledging the uncertainty of the situation. At the same time, they will need to direct people to places where more information is available.

The Maintenance Phase

Communication objectives during the crisis maintenance phase include talking with the general public and other partners:

- Ensure that the public is updated, understands ongoing risks, and knows how to mitigate these risks.
- Provide background and supportive information to those who need it.
- Encourage broad-based support and cooperation with response and recovery efforts.
- Gather feedback from the affected public—listen, learn, and assess.
- Correct misunderstandings, rumors, or unclear facts.
- Continue to help people believe they can take steps to protect themselves, their families, and their community. Continue to explain those steps.
- Support informed decision-making by the public based on their understanding of risks and benefits.

As the crisis evolves, anticipate sustained media interest and scrutiny. Unexpected developments, rumors, or misinformation may place further media demands on organization communicators. Other experts, professionals, and those not associated with the response will comment publicly on the issues. Sometimes they will contradict or misinterpret your messages. Criticism about the response is inevitable and to be expected.

Staying on top of the information flow and maintaining close coordination with others is essential. Processes for tracking communication activities and audiences become increasingly important as the workload increases.

The crisis maintenance phase includes an ongoing assessment of the event and allocation of resources.

The Resolution Phase

Communication objectives for the resolution phase will likely include continued communication to the general public and affected groups. During this phase, communicators should do the following:

- Explain ongoing cleanup, remediation, recovery, and rebuilding efforts to your audience. Motivate them to take action if needed.
- Facilitate broad-based, honest, and open discussion about causes, blame, responsibility, resolutions, and adequacy of the response.
- Improve individual understanding of new risks.
- Promote behaviors that avoid risks.
- Promote personal preparedness.
- Promote the activities and capabilities of agencies and organizations by reinforcing positive identities and images.
- Persuade the public to support public policy and resource allocation to the problem.

As the crisis resolves, there may be a return to the status quo, with a better understanding about what took place. Complete recovery systems are activated. This phase is depicted by much less public and media interest. Once the crisis is resolved, you may need to respond to intense media scrutiny of how the response was handled.

An opportunity may exist to reinforce public health messages while the issue is still current. The organization may need to start a public education campaign or change its website. A community is more likely to respond to safety and public health messages at this time.

The Evaluation Phase

Objectives during the evaluation phase include communication directed toward the response community. Responders will evaluate and assess the effectiveness of responses, including the following:

- Discuss, document, and share lessons learned.
- Determine specific actions to improve crisis communication and crisis response capability.
- Evaluate the performance of the communication plan.
- Implement links to pre-crisis activities.

Typically, an after-action report, sometimes called a "hot wash" or "lessons learned," is generated through a process of reviewing records and consulting the key people involved. No response is ever perfect, and there is always something to learn.

The Role of CERC

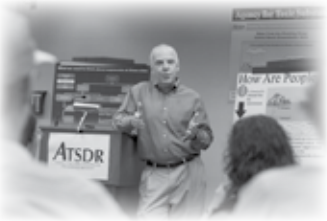
Crises, emergencies, and disasters happen with surprising frequency. One of the reasons disaster responses are difficult to coordinate is that disasters are different from routine daily emergencies.

The difference is more than just one of magnitude.

Crises by definition create very high levels of uncertainty, and they cannot be adequately managed merely by increasing personnel and material. During crisis situations, decision makers are often unable to collect and process information in a timely manner. They rely on established routines for situations that are, by definition, not routine.

> *"I want to acknowledge the importance of uncertainty. At the early stages of an outbreak, there's much uncertainty, and probably more than everyone would like. Our guidelines and advice are likely to be interim and fluid, subject to change as we learn more."*
>
> *Dr. Richard Besser,*
> *CDC Acting Director,*
> *H1N1 Press Conference,*
> *April 23, 2009*

Communication during a crisis requires a different mindset. In major disasters, the incident may be so shattering that the basic understanding of what is occurring and the means to rebuild that understanding fall apart. CERC is vital to helping people cope and begin to rebuild. The right communication helps to bring a sense of order and understanding to otherwise chaotic situations where people may feel their lives have been turned upside down.



By using CERC principles, your communication can work to counter some of the harmful behaviors and perceptions that are common during a public health crisis. These potentially harmful individual, group, organizational, or community behaviors may include, but are not limited to, the following challenges:

- Demands for unnecessary treatment
- Needless social and organizational disruption
- Disorganized and occasionally destructive group behavior
- Bribery and fraud
- Reliance on special relationships for favors and treatment
- Increased drug, alcohol, and tobacco use
- Increased multiple unexplained physical symptoms
- Unreasonable trade and travel restrictions
- Loss of agency credibility and lower levels of government trust

CERC can work to counter some of the harmful behaviors and perceptions that are common during a crisis.

The odds of a negative public response increase when poor communication practices are added to a crisis situation. Proper planning, coordination, research, and training can improve communication practices. Potentially harmful practices to avoid include the following:

- Mixed and conflicting messages from multiple sources
- Late release of critical information
- Overly reassuring and unrealistic communication
- Advice without a reality check
- Paternalistic approach to communication
- Unaddressed or uncorrected myths and rumors
- Spokespersons who engage in poor behavior, exhibit a lack of appropriate emotion, use inappropriate humor, or offer inaccurate statements
- Public power struggles, conflicts, and confusion
- Perception that certain groups are getting preferential treatment

The purpose of an official response to a crisis is to efficiently and effectively reduce and prevent illness, injury, and death, and return individuals and communities to normal as quickly as possible. During a response, the possibility of harmful human behaviors, combined with poor communication practices, can lead to overwhelming and harmful public outcomes.

The following are some of the negative situations public health professionals may face:

- Public demands for misallocation of limited emergency response resources
- Public mistrust or avoiding public health recommendations
- Opportunists who play on peoples' fears or uncertainties to provide fraudulent or ineffective health treatments
- Overreaction with wasted fiscal and medical resources during the emergency response
- Self-appointed experts who offer questionable advice
- Increased destruction, disease, and death

Good communication can reduce harmful human behavior and prevent negative public health response outcomes. Trained communicators will do the following:

- Develop messages following CERC principles
- Reduce high levels of uncertainty
- Use an effective crisis communication plan
- Be the first source for information
- Express empathy and show concern
- Exhibit competence and expertise
- Remain honest and open
- Coordinate with other response officials
- Commit and remain dedicated to the response and recovery

Subsequent chapters will explain how to use these practices to communicate effectively. Without effective communication, people affected by a crisis are far more likely to engage in damaging behaviors. The crisis will only get worse.

Conclusion

No response is perfect, and events can develop in surprising ways. In the following chapters, we provide a roadmap that includes specific tools to improve communication effectiveness during emergencies. Helping organizations and agencies fulfill their mission, maintain public trust, manage limited resources, and limit harm and disruption is critical. Well-planned and well-executed CERC, fully integrated into the activities of every phase, is critical to an effective response.

Tables

Table 1–1. Specific Hazards Under CDC Emergency Preparedness and Response

Type of Hazard	Definition	Examples
Bioterrorism	Deliberate release of viruses, bacteria, or other germs (agents) used to cause illness or death in people, animals, or plants.	• Anthrax • Botulism • Brucellosis • Plague • Smallpox • Tularemia
Chemical Emergencies	An emergency involving the intentional or unintentional release of a chemical that could harm people's health.	• Carbon monoxide • Chlorine • Mercury • Nerve agents • Oil Spill • Ricin
Infectious Disease Outbreaks	An emergency involving unintentional release of viruses, bacteria, or other microorganisms that causes illness or death in people, animals, or plants.	• Cholera • *E. coli* infection • Pandemic flu • MRSA infection • Whooping cough • *Salmonella* infection
Natural Disasters and Severe Weather	A disaster in which the proximate cause is a natural hazard. Due to their scope and scale, a natural disaster can be a mass causality event. It can be accompanied by severe economic impact. Natural disasters are particularly severe in infrastructure poor regions and nations.	• Earthquakes • Floods • Hurricanes • Landslides/mudslides • Tornadoes • Wildfires • Winter weather
Radiation Emergencies	An emergency involving the release of radiation that could harm people's health.	• Nuclear accident • Nuclear blast • Radiation dispersal device (dirty bomb) • Transportation accident
Explosions	Explosion or blast producing numerous casualties with complex, technically challenging injuries—not commonly seen after natural disasters.	• Industrial explosions • Terrorist bombings • Military strikes

Table 1–2. National Response Framework Incident Categorization

Type of Incident	Definition	Examples
Biological Incident	Naturally occurring biological diseases (communicable and non-communicable) in humans—as well as those used in a terrorist event.	• Anthrax • Botulism • H1N1 flu • Ricin • Smallpox
Cyber Incident	Any incident of national significance with cyber-related issues.	• Cyber attacks against Internet • Cyber attacks against critical infrastructure information systems • Technological emergencies
Food and Agricultural Incident	This is a threat to public health, animal health, food production, aquaculture, livestock production, wildlife, soils, rangelands, and agricultural water supplies.	• *E. coli* infection • Mad Cow Disease • Melamine contamination • *Salmonella* infection
Natural Disaster	A disaster caused by natural events. Due to their scope and scale, a natural disaster can be a mass casualty event. Natural events are almost always accompanied by a severe economic effect. They are particularly harsh in poor regions and nations, where bridges, buildings, and structures do not remain intact.	• Earthquakes • Floods • Hurricanes • Landslides/ mudslides • Severe weather • Severe winter weather or ice storms • Tornadoes • Wildfires
Nuclear or Radiological Incident	Release of radioactive material that poses an actual or perceived hazard to public health, safety, national security, or the environment.	• Nuclear accident • Nuclear blast • Radiation Dispersal Device • Transportation accident
Oil and Hazardous Materials Incident	A threat to public health, welfare, or the environment caused by an event from oil or other hazardous materials.	• Chemical spill • Ground water contamination • Oil spill • Waste transportation accident
Terrorism Incident	A threatened or actual terrorist incident within the United States.	• Biological threats • Chemical threats • Explosions • Nuclear blast • Radiological dispersion device

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CRISIS & EMERGENCY RISK COMMUNICATION
2012 EDITION

Chapter 2: Psychology of a Crisis and Principles of Risk Communication

Chapter 2: Psychology of a Crisis

In this module we will look at human behavior during an emergency by reviewing the following issues:

- Psychological effects of a crisis
- Communication in a crisis
- Perception of risk
- CERC in action

Psychological Effects of a Crisis

The most important psychological effects of crises may be helped with the right communication. Effective communication is not an attempt at mass mental health therapy nor is it a magic potion that will fix all problems. It is a critical, reasoned, and necessary strategic response involving the following:

- Selection of the message
- Messenger
- Method of delivery

The panic myth is one of the most pervasive and problematic misconceptions about crises. If you believe people will panic you may choose to withhold critical information which will undermine trust and actually increase the chances that people will do the wrong thing.

One way we can help manage stress is through communication. This is especially true during a disaster. Each crisis will carry its own psychological consequences. Clinicians, responders, and communicators must do their best to anticipate what psychological effects the population will experience and use appropriate Crisis and emergency risk communication (CERC) strategies. CERC is a valid and necessary tool for response and recovery.

Contrary to what we see portrayed in the movies, we seldom act irrationally when faced with a crisis—and we seldom panic. In fact, the panic myth is one of the most pervasive misconceptions about crises. For example, people have been known to run into burning buildings or refuse to get out of a car stuck on the tracks with a train speeding toward them, but these are very rare occurrences.

When confronted with a crisis, people occasionally go into shock and become paralyzed to the point of helplessness. Most of us, however, can and do act rationally during an emergency. We often engage in supportive and selfless behaviors to help friends, family, and neighbors.

Many government leaders are concerned about causing public panic. When facing a crisis, they may mistakenly withhold information in an effort to prevent panic and protect the public—at the very time they should be sharing their concerns. We can develop a more reasonable and mature communication approach. It just takes practice.

Negative Behaviors

Effective CERC strategies can address negative feelings and behaviors during crises. These behaviors include the following:

- **Negative vicarious rehearsal:** Communication technology allows the public to participate in a crisis even when they are not in immediate danger. Some people will mentally rehearse the crisis as if they are experiencing it. Because armchair participants have more time to make decisions, they may be much more critical of official advice, leading to the following consequences:
  - People may reject the proposed course of action and choose another.
  - Some may insist they, too, are at risk and need medical treatments that have been recommended for victims. This could include a vaccination or a nonemergency trip to an emergency department. People who do this, often referred to as the "worried well," could begin to tax the recovery efforts and strain response resources.
- **Denial:** Members of the community may experience denial for a variety of reasons. Some may simply not receive a warning, have adequate information, or know about the recommended actions. In other cases, the warning message may not be clear, or the person may seek further confirmation. With some communities, this confirmation may involve additional factors, such as the following:
  - A need to consult community leaders or experts for specific opinions
  - The desire to first know how others are responding
  - The possibility that the warning message of the threat is so far outside the person's experience that he or she simply can't make sense of it—or just chooses to ignore it

An individual experiencing denial may not take recommended steps to protect life and safety until the absolute last moments. In some cases, such as evacuations or vaccinations, these delayed responses may be too late.

- **Stigmatization:** In some instances, victims may be stigmatized by their communities and refused services or access to public places. The following are some of the problems caused by stigmatization:

- A group that is perceived to be contaminated or threatening may be isolated. This will hamper community recovery. It will also affect treatment, evacuation, and relocation efforts.
- In a disease outbreak, a community is more likely to separate from those perceived to be infected. This can make it more difficult to track and contain a disease outbreak.

- **Fear:** Fear is an important psychological consideration in the response to a threat. Bear in mind the following aspects of fear:
  - In some cases, a perceived threat can motivate and help people take desired actions.
  - In other cases, fear of the unknown or fear of uncertainty may be the most debilitating of the psychological responses to disasters.
  - When people are afraid, and do not have adequate information, they may react in inappropriate or irrational ways.
- **Hopelessness and helplessness:** Perceived helplessness is one of the most devastating psychological aspects of a crisis. Proposing simple actions and advice can help because:
  - People may accept that the threat is real; however, the threat may loom so large they feel the situation is hopeless.
  - They may feel helpless to protect themselves and mentally or physically withdraw.
- **Optimistic bias:** People generally have a systematic tendency to be optimistic in their expectations about outcomes. They may:
  - Underestimate the likelihood that negative events will occur
  - Underestimate the severity of those events
  - Underestimate the likelihood those events will affect them

While optimism can be a very positive force during a crisis, it can interfere with people taking appropriate actions, such as getting vaccinations or following advice to evacuate.

Post-traumatic Stress Disorder[1]

Those who respond to a crisis or are affected by it may experience more severe psychological disorders, such as post-traumatic stress disorder (PTSD).

- PTSD is the anxiety disorder some people get after exposure to a dangerous event. Most people who have been through a severe crisis will report sadness, anxiety, stress, and fear, but they usually do not develop PTSD. According to the National Institute of Mental Health traumatic events that may trigger long-term problems include the following:
  - Violent personal assaults
  - Natural or human-caused disasters
  - Accidents
  - Military combat

- Unique identifying PTSD features may include the following:
  - Re-experiencing symptoms, such as flashbacks or bad dreams
  - Avoidance and numbing symptoms, like staying away from events or feeling void of emotions
  - Symptoms of increased arousal, such as being easily startled or feeling "on edge"
  - Symptoms that last for at least one month
  - Significant distress or impairment of functioning

PTSD sufferers tend to have abnormal levels of key hormones involved in response to stress. Some studies have shown that cortisol levels are lower than normal and epinephrine and norepinephrine levels are higher than normal.[2] When people are in danger, they produce high levels of opiates, which can temporarily mask pain. Scientists have found that PTSD sufferers continue to produce those higher levels even after the danger has passed.

People who have PTSD may feel stressed or frightened even when they're no longer in danger. The main treatments for people with PTSD are psychotherapy (which involves talking with a therapist), medications, or both. Everyone is different, so a treatment that works for one person may not work for another.

Most trauma survivors will be upset for several weeks following an event, but do recover to a certain degree without treatment. The majority of traumatized individuals do not develop PTSD.[1] The percentage of those who continue to have problems will depend on many factors, including the relative severity of trauma exposure. PTSD can occur in anywhere from 4–30% of trauma survivors. Listed are some examples:[3]

- Natural disaster: 4–5%
- Bombing: 34%
- Plane crash into hotel: 29%
- Mass shooting: 28%

When people have serious symptoms that go away after a few weeks, this is called acute stress disorder (ASD). The rate of ASD varies between different types of trauma. It is higher for human-caused trauma:

- Hurricane: 7%
- Industrial accident: 6%
- Violent assault: 19%
- Motor vehicle accident: 14%
- Assault: 13%

Certain types of exposure will place survivors at high risk of post-disaster problems:

- Exposure to mass destruction or death
- Toxic contamination
- Sudden or violent death of a loved one
- Loss of home or community

Table 2–1. Common Responses to a Traumatic Event[4]

Cognitive	Emotional	Physical	Behavioral
• Poor concentration • Confusion • Disorientation • Indecisiveness • Shortened attention span • Memory loss • Unwanted memories • Difficulty making decisions	• Shock • Numbness • Feeling overwhelmed • Depression • Feeling lost • Fear of harm to self or loved ones • Feeling nothing • Feeling abandoned • Uncertainty of feelings • Volatile emotions	• Nausea • Lightheadedness • Dizziness • Gastrointestinal problems • Rapid heart rate • Tremors • Headaches • Grinding of teeth • Fatigue • Poor sleep • Pain • Hyper-arousal • Jumpiness	• Suspicion • Irritability • Arguments with friends and loved ones • Withdrawal • Excessive silence • Inappropriate humor • Increased or decreased eating • Change in sexual desire or functioning • Increased smoking • Increased substance use or abuse

Media Coverage of Crisis and Potential Psychological Effects

Most of us tend to have stronger psychological and emotional reactions to a crisis if it's manmade, imposed, or catastrophic.[5,6] These types of crises also tend to have increased media exposure. The media will often show repeated negative images:

- People who are dying or in distress, lacking food and water
- Animals that have been abandoned, hurt, or covered in oil
- Landscapes, such as collapsed buildings, flooded homes, or oil floating on top of water

Those of us who are indirectly affected by the crisis through media exposure may personalize the event or see ourselves as potential victims. Researchers have studied whether exposure to media coverage of a crisis can have a negative psychological effect on people who have been directly or indirectly affected.[7]

For example, on September 11, 2001, adults watched an average of 8.1 hours of television coverage, and children watched an average of 3.0 hours.[6] Several studies show that the amount of time spent watching TV coverage and the graphic content of the attacks on September 11 was associated with increased PTSD and depression symptoms. This was even true for those not directly affected. In addition, those who were directly affected by the attacks and watched more television coverage had higher rates of PTSD symptoms and depression than those who did not.

Understanding Concepts of Death, Dying, and Grief

Bereavement, grief, and mourning are natural feelings. The view of a particular society, culture, or subculture with its expectations of appropriate grieving influences the experience of loss. It can vary widely from community to community and cultural group to cultural group. Grief is a familiar emotion, but no two people experience grief in exactly the same manner. Various forms of these natural feelings include:

- **Bereavement:** This is the state that results from a significant loss and encompasses a wide range of reactions, including emotional, cognitive, spiritual, behavioral, and physical. Bereavement is a normal, natural experience, although it is traumatic and can be emotionally unsettling.
- **Grief:** This refers to the process of regaining mental balance after a loss. Symptoms might include a discharge of pent-up emotions and constant thoughts of the deceased. A person who is grieving may also be re-evaluating spiritual issues and experiencing physical symptoms.
- **Mourning:** This is the public expression or sharing of feelings of grief. Rituals such as funeral services or wearing black are expressions of mourning.
- **Anticipatory grief:** This is an experience that occurs before the expected death of a loved one and is a projection of emotional pain and the life change that the loss will bring.

For example, premature death, or what experts call “death out of time,” can be accompanied by additional psychological harm. The death of someone who is not sick or advanced in age, such as the death of a healthy child, can be particularly difficult. People communicating to an individual or community experiencing the extreme pain and grief that accompanies such a loss must be especially aware of how this grief is experienced.

In the end, growth is the desired outcome of the grieving process. The person and the context of the death will affect that process. Several other factors may also influence it. These include the circumstances of the death, the relationship with the deceased, history of loss, and secondary losses such as no longer fitting into a social group or the loss of a dream.

Generally speaking, the steps following a loss include:

- Acceptance of the reality of the loss
- Experiencing the pain of grief
- Adjusting to an environment without the deceased
- Withdrawing emotional energy for the relationship with the deceased and investing it in new or existing relationships

Harmful Actions Associated With Crisis-related Psychological Issues

Without communication from a source that is trusted by the audience to lessen the psychological impact, negative emotions may lead to harmful individual or group behaviors. Actions may affect the public's safety by slowing the speed, quality, and appropriateness of a crisis response and recovery. Crisis-related psychological issues may lead to further loss of life, health, safety, and property. Harmful actions may include the following:

- Misallocating treatments based on demand rather than medical need
- Unfairly tarnishing an industry's reputation or product through misinformation
- Accusations of providing preferential treatment and bias in providing aid
- Imposing unwarranted and unreasonable trade and travel restrictions
- Attempting fraud
- Creating and spreading damaging rumors and hoaxes directed at people or products
- Offering unfounded predictions of greater devastation
- Encouraging an unfair distrust of government agencies
- Attempting bribery for scarce or rationed treatments and resources
- Depending on special relationships to ensure considerations based on desire, not need

People in a crisis tend to have more unexplained physical symptoms. In emergencies involving disease outbreaks, these symptoms could confound the effort to identify those people who need immediate care versus those who need only limited treatments or access to medications.

Positive Responses following a Crisis

Positive responses might include coping, altruism, relief, and elation at surviving the disaster. Feelings of excitement, greater self-worth, strength, and growth may come from the experience. Often a crisis results in changes in the way the future is viewed, including a new understanding of risks and new ways to manage them.

How quickly the crisis is resolved and the degree to which resources are made available will make a difference. Many of these good feelings associated with a successful crisis outcome depend on effective management. Positive responses may include the following:

- Relief and elation
- Sense of strength and empowerment
- New understanding of risk and risk management
- New resources and skills for risk management
- Renewed sense of community
- Opportunities for growth and renewal

Communication in a Crisis is Different

To reduce the psychological impact of a crisis, the public must feel empowered to take actions that will help reduce their risk of harm. Physical and mental preparation may help relieve anxiety. An action message can provide people with the belief that they can take specific steps to improve a situation.

People may receive, interpret, and act on information differently during an emergency than during a normal period. While it can be expected that normal ways of processing information apply; in a serious emergency, people or groups may exaggerate their communication responses. They revert to more basic or instinctive fight-or-flight reasoning.

In general, the public wants access to as much information as possible. While in some cases too much information may be problematic, too little enhances the psychological stress. If information is incomplete or not present at all during a crisis, this will increase anxiety and increase a sense of powerlessness. It will also lower trust in government agencies.

If information is incomplete or not present at all during a crisis, this will increase anxiety, increase a sense of powerlessness, and lower trust in government agencies.

The amount of media coverage of a traumatic event directly affects audience response partly by setting the public agenda. In some instances, such coverage can be damaging. The effects of television coverage of disasters on children, for example, can be especially troubling because the context of the disaster may not be understood. The 24-hour-a-day coverage following the terrorist attacks of 9/11, in particular, the repeated showing of the towers falling, created the impression of multiple ongoing attacks. In these cases, people were advised to turn off televisions.

Four factors help us process information during a crisis:

1. We simplify messages.[5]

Under intense stress and possible information overload, we tend to miss the nuances or importance of health and safety messages by:

- Not fully hearing information, because of our inability to juggle multiple facts during a crisis
- Not remembering as much of the information as we should
- Confusing action messages, such as remembering which highway is blocked for safety

To cope, many of us may not attempt a logical and reasoned approach to decision making. Instead, we may rely on habits and long-held practices. We might also follow bad examples set by others, and engage in irrational behaviors like unfairly blaming leaders or institutions.

2. We hold on to current beliefs.[5]

CERC sometimes requires asking people to do something that seems counterintuitive. Examples include the following:

- Getting out of a safe car and lying in a ditch instead of outrunning a tornado
- Evacuating even when the weather looks calm.

Changing our beliefs during a crisis or emergency may be difficult. Beliefs are very strongly held and are not easily altered. People tend not to seek contrary evidence.

We also tend to exploit any conflicting or unclear messages about a subject by interpreting it as consistent with existing beliefs. For example, we might say, “I believe that my house is a safe place.” During an impending hurricane, however, experts may recommend that we evacuate from an insecure location and take shelter in a building that is stronger and safer. We can easily misinterpret the recommendation by saying, “I’ve always been secure in my home. When we left last time, the hurricane went north of us anyway. I’ll just stay here.”

Faced with new risks in an emergency, we rely on experts with whom we have little or no experience. Often, reputable experts disagree regarding the level of threat, risks, and appropriate advice. The tendency of experts to offer opposing views leaves many of us with increased uncertainty and fear.

3. We look for additional information and opinions.[5]

We remember what we see, and tend to believe what we’ve experienced. During crises, we want messages confirmed before taking action. You may find that you or other individuals are likely to do the following:

- Change television channels to see if the same warning is being repeated elsewhere.
- Try to call friends and family to see if others have heard the same messages.
- Turn to a known and credible local leader for advice.

In cases where evacuation is recommended, we tend to watch to see if our neighbors are evacuating before we make our decision. This confirmation first—before we take action—is very common in a crisis.

4. We believe the first message.[8]

During a crisis, the speed of a response can be an important factor in reducing harm. In the absence of information, we begin to speculate and fill in the blanks. This often results in rumors. The first message to reach us may be the accepted message, even though more accurate information may follow. When new, perhaps more complete information becomes available, we compare it to the first messages we heard.

Therefore, messages should be simple, credible, and consistent. Speed is also very important when communicating in an emergency. An effective message must:

- Be repeated
- Come from multiple credible sources
- Be specific to the emergency being experienced
- Offer a positive course of action that can be executed

People should also have access to more information, through other channels, such as through websites or the media.

The Perception of Risk[9,10]

The perception of risk is also important in CERC. Not all risks are created equal. The characteristics of the risk will affect how it is perceived and how willing people will be to accept it. The following examples illustrate perceptions people may have of risks:

- **Voluntary versus involuntary:** Voluntary risks are more readily accepted than imposed risks.
- **Personally controlled versus controlled by others:** Risks controlled by the individual or community are more readily accepted than risks outside the individual's or community's control.

If it's the first emergency of its type, the communication challenge will increase. The more unfamiliar the risk, the less it will be understood.

- **Familiar versus exotic:** Familiar risks are more acceptable than unfamiliar risks. Risks perceived as relatively unknown are perceived to be greater than risks that are well understood.
- **Natural origin versus manmade:** Risks generated by nature are better tolerated than risks generated by humans or institutions.
- **Reversible versus permanent:** Reversible risk is better tolerated than risk perceived to be permanent.
- **Statistical versus anecdotal:** People tolerate risks they understand as a certain number of cases per a certain size of population better than risks they understand through anecdotal reports. Using anecdotes may convey fear and describe harm, but does not describe the magnitude of the risk. This increases uncertainty.

  Using imprecise measurements of risk may also increase uncertainty. For example, it's best not to understate by saying: "There's only a one in a million chance that it will happen." It's better to say the actual risk: "We anticipate that one in one thousand people may be affected by this virus. The best thing to do for you and your family is …"

- **Endemic versus epidemic (or catastrophic):** Illnesses, injuries, and deaths that spread over time at a predictable rate are better tolerated than illnesses, injuries, and deaths grouped by time and location, such as U.S. car crash deaths versus airplane crashes.
- **Fairly distributed versus unfairly distributed:** Risks that do not single out a group, population, or individual are better tolerated than risks that are perceived to be targeted.
- **Trusted institutions versus mistrusted institutions:** Risks generated by trusted institutions are better tolerated than those coming from mistrusted organizations. If an organization lacks credibility, people will be less accepting of actions taken by the organization that could lead to harm.
- **Adults versus children:** Risks that affect adults are better tolerated than risks that affect children.
- **Understood benefit versus questionable benefit:** Risks with well-understood potential benefits and the reduction of well-understood harm are better tolerated than risks with little or no perceived benefit or reduction of harm.

The principles of risk perception are important for developing risk messages during an emergency. If it's the first emergency of its type, the communication challenge will increase because the emergency is less familiar and poorly understood.

Populations subjected to risks caused by human actions that are meant to destroy, hurt, and create terror will react much more negatively. Unfairly distributed, unfamiliar, catastrophic, and immoral events create long-lasting mental health effects that lead to anger, frustration, helplessness, fear, and in some cases, a desire for revenge.

In any discussion of risk, the scientist may perceive one risk in 10,000 as an acceptable risk. When listeners hear that one adverse outcome, they may believe that the risk is much greater to them. Perception of risk is not about numbers alone. The following rules and other risk perceptions must be considered during a crisis. These are adapted from the Environmental Protection Agency's *Seven Cardinal Rules of Risk Communication.*[11]

1. Accept and involve the public as a legitimate partner.

Two basic tenets of risk communication in a democracy are generally understood and accepted. First, people and communities have a right to participate in decisions that affect their lives, their property, and the things they value. Second, the goal should be to produce an informed public that is involved, interested, reasonable, thoughtful, solution-oriented, and collaborative. You should not try to diffuse public concerns and avoid action.

Guidelines:

- Show respect for the public by involving the community early, before important decisions are made.
- Clarify that decisions about risks will be based not only on the magnitude of the risk but on factors of concern to the public.
- Involve all parties that have an interest or a stake in the particular risk in question.
- Recognize that people hold leaders accountable and follow the highest moral and ethical standards.

"It's said in risk communications that until people know that you care, they don't care what you know. And I think that's really true. It's so important to be a human being when you're talking to people."

Dr. Richard Besser,
Former Director,
Centers for Disease Control and Prevention

2. Listen to the audience.

People are often more concerned about issues such as trust, credibility, control, benefits, competence, voluntariness, fairness, empathy, caring, courtesy, and compassion. They are not as interested in mortality statistics and the details of a quantitative risk assessment. If your audience feels or perceives that they are not being heard, they cannot be expected to listen. Effective risk communication is a two-way activity.

Guidelines:

- Do not make assumptions about what people know, think, or want done about risks.
- Find out what people are thinking by using techniques such as interviews, discussion groups, advisory groups, toll-free numbers, and surveys.
- Listen to all parties that have an interest or a stake in the issue.
- Identify with your audience and try to put yourself in their place.

- Recognize people's emotions.
- Let people know that you understand their concerns and are addressing them.
- Understand that audiences often have hidden agendas, symbolic meanings, and broader social, cultural, economic, or political considerations that complicate the task.

3. Be honest, frank, and open.

Before a risk communication message can be accepted, the messenger must be perceived as trustworthy and credible. Therefore, the first goal is to establish trust and credibility. Short-term judgments of trust and credibility are based largely on verbal and nonverbal communications. Long-term judgments are based largely on actions and performance. Once made, trust and credibility judgments are resistant to change. In communicating risk information, these are your most precious assets. Once lost, they are difficult to regain.

"You don't want to lie to the media and you don't want to lie to your constituents, stakeholders or the citizens that you serve. If you don't have the answer, then you tell them that you don't have the answer, but I will make every effort to find the answer and will get back to you with the answer."

Joseph Matthews,
Deputy Chief,
Special Operations and Planning,
New Orleans Fire Department

Guidelines:

- State your credentials, but do not ask or expect to be trusted by the public.
- Express willingness to follow up with answers if the question cannot be answered at the time you are speaking.
- Make corrections if errors are made.
- Disclose risk information as soon as possible, emphasizing appropriate reservations about reliability.
- Do not minimize or exaggerate the level of risk.
- Lean toward sharing more information, not less, to prevent people from thinking something significant is being hidden.
- Discuss data uncertainties, strengths, and weaknesses, including the ones identified by other credible sources.
- Identify worst-case estimates and cite ranges of risk estimates when appropriate.

4. Coordinate and collaborate with other credible sources.

Allies can be effective in helping communicate risk information. Few things make risk communication more difficult than public conflicts with other credible sources.

Guidelines:

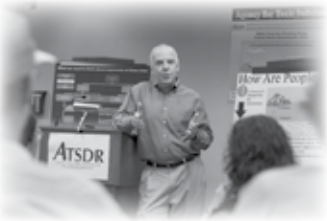
- Coordinate all communications among and within organizations.
- Devote effort and resources to the slow, hard work of building bridges, partnerships, and alliances with other organizations.
- Use credible and authoritative intermediaries.
- Consult with others to determine who is best able to answer questions about risk.
- Try to release communications jointly with other trustworthy sources, such as:
  - University scientists
  - Physicians
  - Local or national opinion leaders
  - Citizen advisory groups
  - Local officials

5. Meet the needs of the media.

The media are primary transmitters of risk information. They play a critical role in setting agendas and in determining outcomes. The media generally have an agenda that emphasizes the more sensational aspects of a crisis. They may be interested in political implications of a risk. The media tend to simplify stories rather than reflect the complexity. Often the media emphasize wrongdoing, blame, and danger.

Guidelines:

- Remain open with, and accessible to, reporters.
- Respect their deadlines.
- Provide information tailored to the needs of each type of media, such as sound bites, graphics, and other visual aids for television.
- Agree with the reporter in advance about specific topics and stick to those during the interview.
- Prepare a limited number of positive key messages in advance and repeat the messages several times during the interview.
- Provide background material on complex risk issues.
- Do not speculate.
- Say only those things that you are willing to have repeated. Everything you say in an interview is on record.
- Keep interviews short and follow up on stories with praise or criticism, as warranted.
- Establish long-term trust relationships with specific editors and reporters.



6. Speak clearly and with compassion.

Technical language and jargon are barriers to successful communication with the public. In low-trust, high-concern situations, empathy and caring carry more weight than numbers and technical facts.

Guidelines:

- Use plain language.
- Remain sensitive to local norms, such as speech and dress.
- Strive for brevity, but respect people's needs and offer to provide more information if needed.
- Use graphics and other pictorial material to clarify messages.
- Personalize risk data by using anecdotes that make technical data come alive.
- Acknowledge and respond to emotions that people express, such as anxiety, fear, anger, outrage, and helplessness.
- Recognize and respond to what the public deems as important in evaluating risks.
- Use comparisons to help put risks in perspective.
- Avoid comparisons that ignore distinctions that people consider important.
- Include a discussion of actions that are either underway or can be taken.
- Promise only what can be delivered.
- Follow through with promises and commitments.
- Understand and convey that any illness, injury, or death is a tragedy.
- Avoid distant, abstract, unfeeling language about deaths, injuries, and illnesses.

7. Plan carefully and evaluate performance.

Different goals, audiences, and media require different risk communication strategies. Risk communication will be successful only if carefully planned and evaluated.

Guidelines:

- Begin with clear, explicit objectives.
  - Provide information to the public.
  - Offer reassurance that something is being done.
  - Encourage protective action and behavior change.
  - Stimulate emergency response.
  - Involve partners, businesses, and colleagues in dialogue and joint problem solving.

- Assess technical information about risks. Know its strengths and weaknesses.
- Pretest messages.
- Identify important organizations and subgroups within the audience.
- Aim communications at specific groups and subgroups in the audience.
- Recruit spokespersons with effective presentation and human interaction skills.
- Train staff, including technical staff, in communication skills.
- Recognize and reward outstanding performance.
- Evaluate efforts and learn from mistakes.

CERC in Action

Note: The recommendations listed in this section are adapted from recommendations that appear in an article developed for CDC by Dr. Peter Sandman. Additional articles and information on risk communication and much more are available at www.psandman.com.

Some risk communication practitioners describe how the public perceives risk in terms of hazard and outrage. "Hazard" is the seriousness of a risk from a technical perspective, the magnitude or probability of something undesirable occurring. "Outrage" addresses everything negative about the situation, such as lack of control, unfamiliarity with the risk, dread, and trustworthiness of the source. Experts tend to view risk more in terms of hazard while ignoring outrage; everyone else views it as equal parts hazard plus outrage.

1. Don't Dismiss Outrage.

While it may be tempting to dismiss outrage as a case of people not being informed, you should recognize and accept that these perceptions are real.

People have different, variable, and personal experiences with risks, and these will be reflected in their level of outrage. When people are afraid and worried, the worst thing to do is pretend that they're not. The second worst thing is to tell them they shouldn't be. Both responses leave people alone with their fears.

When people are afraid and worried, the worst thing to do is pretend that they're not. The second worst thing is to tell them they shouldn't be.

2. Be careful with risk comparisons.

We've all heard experts say, "This problem is less serious than that one." Unfortunately, when experts try to explain this in general terms by saying things like "this flood is not going to be as bad as the

one we had last year," they are creating a no-win environment, especially if your community is at risk for flooding. In hazard terms, the comparison is valid. But the audience is probably thinking in terms of outrage, thus these types of comparisons probably won't work.

For example, few people have been affected by bioterrorism as opposed to driving a car. Thousands of people are killed every year in motor vehicle crashes in which the driver was distracted while driving. However, relatively few people (by comparison) fear distraction (eating, texting, phoning) when driving. We are more outraged by bioterrorism. But the chances of being affected by terrorists are lower than being in an auto accident. This suggests that the risks the public overestimates are high in outrage and low in hazard.

3. Don't over-reassure.

If an emergency event is catastrophic, unexpected, dreaded, unfamiliar, in someone else's control, morally repugnant, or memorable, there will be a high level of outrage. Reassurance can backfire. Agree that the situation is indeed shattering and being afraid is a natural reaction.

An over-reassured public is generally not your goal, at least not during the early stages of a crisis. You want people to be concerned, vigilant (even hypervigilant at first) and take all the appropriate precautions.

Finally, excessive reassurance can be problematic if the situation changes for the worse, forcing officials to backtrack.

Reassurance can backfire. It is important to remember that an over-reassured public isn't the goal. You want people to be concerned, vigilant (even hypervigilant at first), and take all the right precautions.

4. Put the good news in secondary clauses.

You should, of course, give people reassuring information. But try not to overly emphasize it. Overemphasis of good news may trigger the audience's ambivalence.

Make sure you communicate the information people need to put risks in the right context. For example, you might say, "It's too soon to say we're out of the woods, even though we haven't seen a new anthrax case in X days." The main clause indicates that you are taking the situation seriously and that you are responding aggressively. But never put yourself in the position of minimizing the risk or urging the audience not to worry.

5. Acknowledge uncertainty.

You may have been taught to sound confident even when you're uncertain. While this may inspire trust, there is a potential for overconfidence, which can backfire.

On an individual level, doctors who share their uncertainty (in tone as well as content), who make the patient a collaborator, and who work against inflated expectations are viewed much more positively. The same is true for leaders and public health officials communicating to the public.

Acknowledging uncertainty is most effective when you express your own distress and show you understand your audience's distress. You may use phrases like "How I wish I could give you a definite answer on that…" or "It must be difficult for you to hear how tentative and qualified we have to be because there is still so much we don't know." The situation may obviously be uncertain and acting otherwise creates mistrust.

6. Give people meaningful things to do.

In an emergency, recommended actions may be directed to victims, persons exposed, persons who may be exposed, bystanders, or the general public. Those who do not need to take immediate action will be engaging in vicarious rehearsal of those recommendations and may need substitute actions of their own. Unless given substitute actions, people may unintentionally slow the response. For example, they may go to the site of a disaster to help out and, by so doing, create congestion.

In an emergency, simple tasks will:

- Give people a sense of control
- Keep people motivated to stay tuned to what is happening
- Prepare people to take action if and when they need to do so

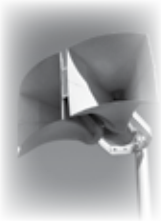
When giving people something to do, give them a range of actions they can take, based on their level of concern: a minimum response, a maximum response, and a recommended middle response. Many risk experts describe these action levels as "must do, should do, could do."

"Must do, should do, could do" example:

To make drinking water safe:

1. Use chlorine drops if safety is uncertain,
2. boil water for 2 minutes, or
3. buy bottled water.

We recommend boiling water.



7. Do not try to dispel panic.

Panic during a crisis is rare. People nearly always behave in a rational way during a crisis. In the face of the 9/11 attacks, people in lower Manhattan became simultaneously resourceful and responsive. When told what to do by those in authority, people followed instructions.

If no one is in charge and no advice is forthcoming people may:

- Assess the situation, and, based on their experiences, determine a course of action.
- Take calm, self-protective actions that seem rational and appropriate to them, even if authorities recommend otherwise.
- Feel anxiety, fear, and even delayed panic attacks or PTSD when the crisis ends.

The 2002–2003 SARS outbreak began in China. In America, some people chose to avoid Asian restaurants out of fear. Experts dismissed this as irrational, but from the perspective of many members of the public, their response seemed logical, despite the fact that SARS did not originate in American Asian restaurants.

While panic is rare for those in a true emergency situation, the more removed people are from the real danger (in place and time), the more likely they are to allow their emotions full range. This vicarious rehearsal can be overwhelming. They may ask themselves questions such as "How would I feel in an emergency?", "What would I do?", and "Does this advice work for me?"

The communicator must recognize differences among audiences. The person anticipating high risk is much more likely to respond inappropriately than the person in the heat of the battle who will act on the information.

Recognize the differences among your audience. A person anticipating high risk is much more likely to respond inappropriately than a person in the heat of the battle, who will act on the information and doesn't have the time to rethink.

Other conditions that are likely to create heightened anxiety and severe emotional distress are silence or conflicting messages from authorities. People are likely to be very upset when they feel:

The condition most conducive to panic isn't bad news—it's conflicting messages from those in authority.

- They can't trust what those in authority are telling them.
- They have been misled or left without guidance during times of severe threat.

If you start hedging or hiding the bad news, you increase the risk of a confused, angry, and uncooperative public.

CERC During Different Stages of a Crisis

In addition to the principles of risk communication described, such as expressing empathy and being respectful, it's important to consider how the situation changes during each phase of a crisis. The principles for effective risk communication can be grouped according to their importance during the pre-crisis, initial, maintenance, and resolution phases of the crisis.

Although these phases were discussed in our introduction, it's helpful to have a more in-depth picture of each category.

Pre-crisis Phase

Important information and assumptions are set during the pre-crisis stage even before a crisis occurs. Establish plans and open communication during this phase:

- **Provide an open and honest flow of information to the public:** Generally, more harm is done by officials trying to avoid panic by withholding information or over-reassuring the public, than is done by panic in a crisis. Panic can occur, but it's very rare. Pre-crisis planning should assume that you will establish an open and honest flow of information.

During the pre-crisis phase:

- Messages should be developed that anticipate and consistently answer expected questions.
- Messages can be tested by audiences to ensure they are culturally and demographically appropriate.

Resist talking down to an audience before a crisis by telling them they have nothing to worry about—or scare them by telling them they do—especially when there's little action they can take before a crisis.

1. **Emphasize that there is a process in place:** Define the crisis response process, describe the roles and responsibilities for response, and outline possible solutions. Helping people understand the process before a crisis will make it easier for them to coordinate and take appropriate actions.

Initial Phase

During this stage of acute danger, the priority for all is basic safety and survival. Most people respond appropriately to protect their lives and the lives of others.[12] To reduce the threat, they create spontaneous efforts to cooperate with others. However, some may behave in disorganized ways and may not respond as expected. The more stress felt in a crisis, the greater the impact on the individual. Important causes of stress include the following:

- Threat to life and encounters with death
- Feelings of powerlessness
- Personal loss and dislocation, such as being separated from loved ones or home
- Feelings of being responsible, such as telling oneself "I should be doing more."
- Feelings of facing an inescapable threat
- Feelings of facing malevolence from others, such as deliberate efforts that cause harm

During the initial phase, the following CERC principles are important:

- Don't over-reassure: Express appropriate and accurate levels of concern. Do not placate.
- Acknowledge uncertainty: Offer only what you know. Show your distress, listen to your audience, and acknowledge their distress. Use messages such as, "It must be awful to hear we can't answer that question right now…"
- Emphasize that a process is in place to learn more: Use messages such as, "We have a system (plan, process) to help us respond (find answers)." Explain what you know, what you are doing to help and when you will know more (or a time for the next press conference).
- Be consistent in providing messages: Provide consistent messages, and qualify them in reference to a changing situation:
  - Alert the public that the messages or recommendations may change as more information becomes available.
  - Be sure that all responsible participants and any third-party communicators and partners are immediately aware when the message changes.

Maintenance Phase

During this phase, the crisis magnitude, the concept of personal risk, and the initial steps toward recovery and resolution are in motion. Emotional reactions vary and will depend on perceptions about the risk and the stresses people experienced or anticipated. At first people may appear to be elated, despite surrounding destruction or death, because they are relieved they survived. However, as the maintenance phase evolves, people may experience varied emotional states, including numbness, denial, flashbacks, grief, anger, despair, guilt, and hopelessness.

The longer the maintenance phase lasts, the greater these reactions. Once basic survival needs are met, other needs for emotional balance and self-control emerge. People often become frustrated and let down if they are unable to return to more normal conditions. Early selfless responses to the emergency may fall away and be replaced by negative emotions and blame.

The following CERC principles are for the maintenance phase:

- **Acknowledge fears:** Understand that it's normal to be frightened. Don't tell people they shouldn't be afraid, as they have a right to fear the worst.
- **Express wishes:** Use statements such as:
  - "I wish we knew more."
  - "I wish our answers were more definitive."
  - "I wish we had a quick and easy solution."
- **Give people things to do:** In some emergencies, suggested actions are directed toward those who have been exposed to harm, or may yet be exposed. In an emergency, simple tasks will help people gain back a sense of control and help keep them motivated to stay tuned to what is happening. Even those who do not need to take immediate action will be looking at recommendations and possibly vicariously rehearsing them. They might benefit from a meaningful role. Suggest a range of responses: a minimum response, a maximum response, and a recommended middle response.
- **Acknowledge shared misery:** Some people may be less frightened and instead feel high levels of misery and hopelessness. Others may feel defeated. Acknowledging the misery of a catastrophic event may help people move toward hope, particularly if there are actions that organizations and agencies can recommend.
- **Give anticipatory guidance (foreshadow):** If you are aware of possible future negative outcomes, such as side effects from antibiotics, let people know what to expect. If it's going to be bad, tell them.

- **Address the "what if" questions, when appropriate:** These are the questions everyone is thinking about and want answered by experts. It may be impractical to answer them if the crisis is contained and not likely to affect many people. It is reasonable to answer these questions if they could happen and people need to be emotionally prepared, because:
  - If you do not answer the "what if" questions, someone with much less at risk regarding the response's outcome will answer them for you.
  - If you are not prepared to address "what ifs," you lose credibility and the opportunity to frame the "what if" questions with reason and valid recommendations.
- **Be a role model and ask more of people:** People seek direction during the uncertainty of a crisis. As a spokesperson, especially one who is onsite and at some personal risk, you can model appropriate behavior. Good role models:
  - Remain calm while acknowledging and reflecting the experiences people are having.
  - Remember that people can tolerate considerable risk, especially voluntary risk.
  - Recognize risk, its severity, and complexity, and acknowledge fears. It helps others tolerate risk during the emergency and work toward solutions.
  - Do not model false happiness, but demonstrate a true willingness to go on with life as much as possible and to make reasonable choices.
  - Resist being glib. Remain strong and steadfast.
  - Encourage and demonstrate altruism, hope, and resolve. The natural tendency to recover and rebuild are very common responses to crises. Encouraging those inherent traits will help people cope with uncertainty, fear, and despair.

Resolution Phase

At the time when the emergency is no longer on the front page, those who have been most severely affected will continue to have significant emotional needs. Emotional symptoms may present as physical health symptoms such as sleep disturbance, indigestion, or fatigue. They may also cause difficulties with interpersonal relationships at home and work. At this point, organized external support often starts to erode and the realities of loss, bureaucratic controls, and permanent life changes come crashing in.

To maintain trust and credibility during the resolution phase, keep the expressed commitments from the initial phases. Failures or mistakes should be acknowledged and carefully explained. When you explain:

- **Be regretful, not defensive:** Say "We are sorry…" or "We feel terrible that…" when acknowledging misdeeds or failures. Avoid the use of the word "regret," which sounds like you're preparing for a lawsuit.
- **Express wishes:** Say, "I wish we all could have been spared this tragedy (incident, disaster)." or "I wish our answers were more definitive, but we will continue to investigate and monitor this problem, and we will keep you posted on what we find."

Table 2–2. Effective Communication Recommendations

CERC Principles During Pre-crisis Through Resolution	
Pre-crisis	• Provide an open and honest flow of information to the public. • Emphasize that there is a process in place.
Initial	• Don't over-reassure. • Acknowledge uncertainty. • Emphasize that a process is in place to learn more. • Be consistent in providing messages.
Maintenance	• Acknowledge fears. • Express wishes. • Give people things to do. • Acknowledge shared misery. • Give anticipatory guidance (foreshadow). • Address the "what if" questions, when appropriate. • Be a role model and ask more of people.
Resolution	• Be regretful, not defensive. • Express wishes.

Conclusion

Disasters cause psychological distress, and effective communication is a primary strategy for managing and reducing that stress. The ways in which risks are perceived complicates the communication as does the situation itself. CERC strategies can help improve the effectiveness of communication even within less than ideal conditions of a crisis.

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CRISIS EMERGENCY RISK COMMUNICATION

2012 EDITION

Chapter 3: Messages and Audiences

Chapter 3: Messages and Audiences

In this chapter you will learn about:

- Understanding your audiences
- Making facts work in your message
- Using CERC principles
- Organizing information for emergency response presentations
- Audience feedback

The Message: Content Counts in an Emergency

Communication is a dynamic process involving many elements, including a sender, channel, message, receiver, and context. Audiences and messages are key parts of the process. Once the audience is analyzed, the message can be improved for effectiveness.

For any crisis, there will be multiple audiences. The needs and interests of those different audiences will change as the crisis develops. Basic communication principles can improve the effectiveness of your communication.

Understanding Your Audiences

Understanding the needs, cultural background, community history, location, and values of your audiences is one of the most important factors in effective communication. This understanding allows you to match your message to audience characteristics, such as interests, cultural background, location, and their preferred communication channels.

One way to think about the people you are trying to reach is their psychological proximity to the event. People may be psychologically close to an event, because they are physically and emotionally involved.[1] They may have family members who are affected. They may be emergency workers trying to help. Perhaps their jobs or industries will be hurt by the crisis. It is important to understand them and the way they receive important messages.

Also bear in mind that they do not just receive information; they also send it. With changing media technologies, including social media services like Twitter and Facebook, and the ability to use digital media and the Internet, people in a disaster zone can post real-time information. They will often repost and retweet official messages. They also have the ability to post unofficial messages and rumors.

The receiver of your official communication will be assessing and judging the content based on the following:

- The message
- The messenger
- The method of delivery

All three elements must be considered when planning CERC efforts. Bear in mind that the public's awareness of government is heightened during a crisis. They are listening to what you say. Government agencies become the primary source for critical information. Meeting the audience's needs means being as honest, open, and transparent as possible in any situation.

The needs of the members of your audience can be judged three ways:

1. Their relationship to the incident
2. Their psychological differences
3. Their demographic differences

Your audiences will likely be diverse and have very different needs and interests. Remember that the needs and interests of the audience will change as the crisis evolves. Your audiences may include the following:

- **Public within the circle of the disaster or emergency for whom action messages are primarily intended:** Their first concerns are personal safety, family safety, pet safety, and property protection. They may also be worried about stigma, which could arise if an event singles out individuals with circumstances that could bring about negative reactions from others. Examples include people with HIV, illegal immigrants, and those who cannot afford medical care.
- **Public immediately outside the circle of the disaster or emergency for whom action messages are not intended:** Their primary concerns include personal safety, family safety, pet safety, and interruption of their normal activities.
- **Emergency response and recovery workers and law enforcement involved in the response:** Their concerns include having the resources to manage the response and recovery, as well as their personal safety and that of their family and pets left behind.
- **Public health and medical professionals involved in the disaster response:** Their primary medical concerns are ensuring treatment and response protocols, and having enough medical resources. They, too, are concerned about their safety, their family's safety, and pet safety.

- **Family members of victims and response workers:** Their primary concerns include personal safety, safety of victims, and safety of response workers.
- **Health-care professionals outside the response area:** Their primary concerns may include rehearsal of treatments and recommendations, ability to respond to patients with the appropriate information, and access to medical supplies if needed.
- **Civic leaders (local, state, and national):** Their primary concerns include response and recovery resources, liability, and leadership. They also focus on the quality of the response and recovery's planning and implementation. Civic leaders will be looking for opportunities to express concern. They may also need to handle issues with trade and international diplomatic relations.
- **Congress:** They will need to inform their constituents about the disaster. They will want to make sure they can meet the needs of their constituents. This may include reviewing laws and regulations to see if current rules will work for this situation or need adjustment. Members of Congress will also be looking for opportunities to express concern.
- **Business, trade, and industry:** They will be concerned about maintaining business continuity. They will want to avoid business interruptions, loss of revenue, and liability. They will also need to take steps to protect their employees.
- **National community:** Their primary concerns are the following:
  - Vicarious rehearsal,[2] in which they experience the crisis through communication mechanisms rather than directly, and consider courses of action presented to those who are directly affected
  - Getting readiness efforts started
- **International neighbors:** Their primary concerns are also vicarious rehearsal and getting readiness efforts started.
- **International community:** Their primary concerns include vicarious rehearsal and exploring their level of readiness.
- **Stakeholders and partners specific to the emergency (discussed in more detail in Chapter 7):** Their primary concerns are being included in the decision-making process, access to information, and understanding their role in the response.
- **Media:** Their primary concerns are personal safety, access to information and spokespersons, and meeting their urgent deadlines.

Figure 3–1. Audience Relationship to the Event

Each audience will be looking for specific messages based on their characteristics. As a risk communicator, you must prioritize the development of messages for each audience based on their involvement.

Basic principles are important when creating messages. You will need to consider audience segmentation and demographics as well as their physical and psychological relationship to the event. When you consider the communication needs of your audience, bear in mind the following characteristics:

- Education
- Income level
- Current subject knowledge and experience
- Age
- Languages spoken and read

- Cultural background norms and values
- Geographic location
- Religious beliefs

Communication channels are very important during a crisis, and systems to reach these audiences should be developed. This may require assigning staff as liaisons, to ensure that your organization's messages reach critical audiences. During a crisis, established communication channels are often disrupted. This may force you to develop alternative ways of communicating.

In the aftermath of Hurricane Katrina, for example, CDC staff could not rely on television or radio to reach people in the hurricane zone.[3,4] They turned instead to printed flyers for information about the safety of food and water.[3]

Some audiences may be the responsibility of groups other than communication staff. For example, health-care or emergency-management professionals may be communicating with others in your organization. Messages, however, should remain coordinated and consistent. The Hurricane Katrina case study at the end of this chapter illustrates how messages should be adapted to meet the demands of a specific event.

Also see Template 3–1, Message Development for Emergency Communication, at the end of this chapter. This worksheet is designed to help develop targeted messages during a crisis.

How Audiences Assess Messages in a Crisis

Audiences receive, interpret, and evaluate messages before they take action. Expect your audience to immediately judge the content of your message for speed, factual content, and trust and credibility:

- **Speed of communication:** Was the message timely without sacrificing accuracy? One of the primary dilemmas of effective Crisis and Emergency Risk Communication (CERC) is to be speedy in responding but maintain accuracy even when the situation is uncertain:
  - Being first to communicate establishes your organization as the primary source of information. The public may judge how prepared your organization was for the emergency based on how fast you responded. Speedy responses suggest that there is a system in place and that appropriate actions are being taken.
  - If the public is not aware of the response, for them, there is no response. The public may then lose confidence in the organization's ability to respond. Messages then must attempt to catch up in convincing the public that the system for response is working. Remember that if agencies are not communicating, audiences will turn to other, less credible sources.
  - First impressions are lasting impressions, and it's important to be accurate. Responding quickly with the wrong information or poorly developed messages damages credibility. This

doesn't necessarily mean having all the answers; it means having an early presence, so the public knows that agencies are engaged and that there is a system in place to respond.

- People tend to compare future messages to the first message they received. For example, if you issue an evacuation message and then retract it, the second message will be assessed based on the first one.

- **Factual content of the message:** The public will be listening for factually correct information, and some people will expect to hear specific recommendations for action. Therefore, you should do the following:
  - Get the facts right.
  - Repeat the facts often, using simple nontechnical terms.
  - Avoid providing sketchy details in the early part of the response.
  - Ensure that all credible sources share the same facts. Speak with one voice. Inconsistent messages will increase anxiety, quickly undermining expert advice and credibility.

  In 2003, a massive blackout affected Ohio, Michigan, and parts of Canada.[5,6] Communities had no power and people worried about food and water safety.[5] In Michigan, two public health officials from adjacent counties were being interviewed in succession about boiling water to make it safe for drinking, cooking, and cleaning dishes. Even though they were applying the same state food law and safety codes, the two health departments had not compared notes:

  - An official from County A health department said restaurants were closing and weren't going to reopen until they had been inspected.
  - The County B health department decided not to close the restaurants, because they had previously required all food managers to be certified in their food safety program, which included what to do in an emergency.

  These two conflicting messages resulted in intense media scrutiny of the two county health department policies, as well as a confused public. Restaurant owners from County A were angry because they were forced to close their restaurants and lose business, while restaurants across the street in County B stayed open. Consistent messages are vital, especially when asking people to take actions or steps that are unfamiliar.

- **Trust and credibility of the message:** One of the most important factors in effective communication is credibility. Establishing credibility through communication depends on three basic elements:
  - Intention toward the receiver
  - Expertise
  - Trustworthiness

Don't try to fake these elements. Audiences are very good at determining when a communicator is sincere. Credibility is a resource that can be built up during normal times and used during a crisis. Communication researchers often advise that you build a reservoir of goodwill with your audiences and stakeholders; this will prove to be an important resource.

All messages, written or spoken, can incorporate these elements of credibility. These are especially important to communicate during an emergency when it is critical for the audience to trust the messenger and believe what they are being told.

- **Intention:** Intention toward the receiver involves many factors, including the following:
  - » Empathy
  - » Caring
  - » Commitment
  - » Dedication

Empathy and caring should be expressed within the first 30 seconds of a message. Your audience will be more likely to receive and act on your messages if they see you as being empathetic and caring. It is important that you acknowledge fear, pain, suffering, and uncertainty. Establish commitment and dedication by stating, up front, your organization's objectives for the emergency response and committing to reaching them.

Dedication means you may have to share in the sacrifice and discomfort of the emergency situation. However, don't fake hardship for the TV cameras. There are many examples of officials trying to do so and coming across as insincere and manipulative. For example, effective governors know they'd better walk the territory when declaring a state disaster area. Dedication also means not leaving until the emergency is under control. This may require staying in touch with the community long after the media loses interest in the story. Your organization should commit to resolution and follow-up from the start and carry through until the end.

- **Expertise:** This concerns basic questions of competence and knowledge. People recognize the following types of expertise:
  - » Education
  - » Position
  - » Title
  - » Organizational roles and missions

  People will view you as more competent if you possess previous experience and demonstrated abilities in handling situations like the current one. It will help if you build a relationship with your audience before an emergency. If that is not possible, have a third party, who has already established the confidence of the audience, express his or her confidence in you or your organization.

  Sometimes elected officials may appear with experts to present a unified front and bolster the credibility of each. One example would be letting a medical professional speak about an infectious disease as opposed to a congressman whose background is law.

Expertise may extend beyond technical or scientific knowledge to knowledge about a specific community or a specific issue.

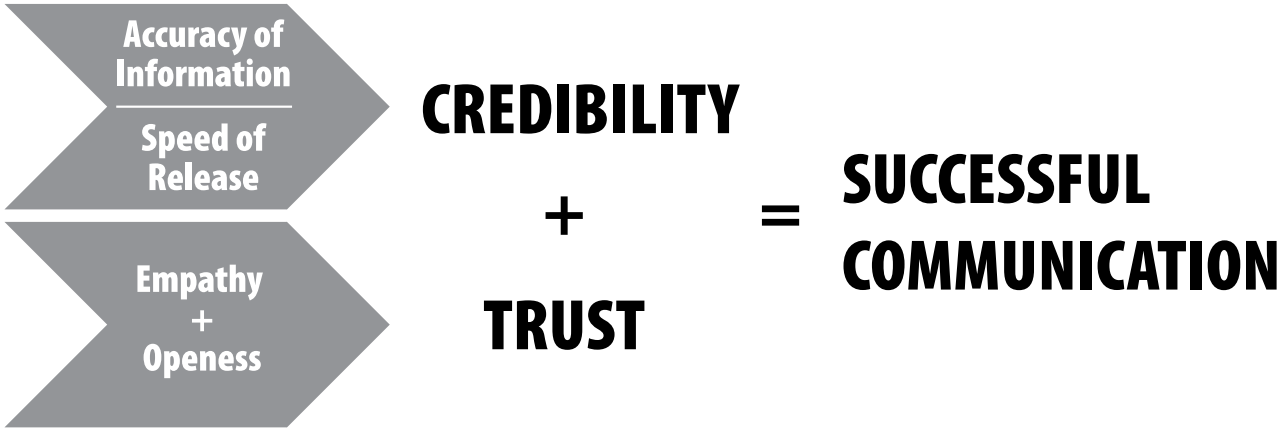
- **Trustworthiness:** This is achieved in part by being honest and open. Honesty means facing the realities of the situation and responding quickly and appropriately. It does not mean releasing information prematurely. Accuracy is always required; however, there is almost always tension in balancing the competing demands for information that is complete and information that is delivered quickly. Establish trust with your audience by considering the following communication guidelines:
  - » Don't be paternalistic. Instead, give people choices and enough information to make informed personal decisions.
  - » Communication systems and procedures may limit your ability to reveal information. Be realistic about this. Don't pretend the information is not available. Instead, explain why the information isn't available for release at the time. You might offer an explanation such as, "We are checking the information" or "We are notifying our organization."
  - » Openness means allowing the public to observe the process while reminding them that it is what drives the quality of the emergency response.
  - » Avoid using professional jargon and euphemisms—they imply insecurity and lack of honesty.

"As far as dealing with the public, you have to be totally honest. You can't hide anything. If you don't know the answer, don't be afraid to say that. Tell the people what you know and what you don't know."

Dennis Walaker,
Mayor,
Fargo, North Dakota

There is simply no substitute for an honest and open response.

Figure 3–2. Elements of Successful Communication



Making Facts Work in Your Message

Message characteristics are important elements to consider in the overall communication process. You may have control over the message content, form, and timing. However, communication during a crisis is different than routine communication.

The following factors are important to consider when creating initial messages about a crisis:

- **Present a short, concise, and focused message with limited detail:** Use a 6th-grade reading and comprehension level. When people are scared or anxious, they have a hard time taking in and remembering large amounts of information. Get the bottom line out first. Very soon, the public will want more information. It should be made available in ways that allow the public to access as much as they want. A method for assessing reading level can be found at www.sph.emory.edu/WELLNESS/reading.html.
- **Cut to the chase:** Only include immediately relevant information in the very first messages. Don't start with a lot of background information. Don't spend a lot of time establishing yourself or your organization. A sentence or two should be enough. Provide what's critical for the public to know.
- **Give action steps in positives, not negatives:** Use messages such as, "In case of fire, use stairs," "Boil drinking water," and "Stay calm," which are positive messages. Negative messages are messages such as, "Do not use elevator," "Don't drink the water," and "Don't panic."
- **Repeat the message:** Reach and frequency are common advertising concepts. They suggest that messages are more apt to be received and acted upon when the number of people exposed to the message (reach) and the number of times each person hears the message (frequency) go up. Repetition also helps with recall, especially during a crisis.
- **Create action steps in threes or fours, or create an acronym:** These are ways to make basic information easier to remember, such as "clean, separate, cook, and chill" for food safety or "stop, drop, and roll" as a fire safety technique. "KISS" (keep it short and simple) is an acronym often used to describe effective communication.

  In an emergency, people absorb about three simple directions at any one time. Somewhere between three and seven pieces of information is the limit for most people to hold in short-term memory. It makes sense in the stress of an emergency to ask your audience to remember fewer bits of information.

> *"During a crisis, it's really hard for people to really hear what you're saying. So repetition becomes essential. But with repetition, you have to make sure your messages are consistent."*
>
> *Richard Besser, M.D., Former Acting Director, Centers for Disease Control and Prevention*

Here are two examples of messages that provide a few basic points that are easy to remember:

- "Anthrax is a bacterium that is treated with antibiotics. Anthrax is not transmitted from person to person. Seek medical care if you believe you have symptoms of anthrax: fever, body aches, and breathing problems."
- "Take time to get a flu vaccine. Wash your hands regularly to help prevent the spread of germs. Take flu antiviral drugs if your doctor prescribes them."

With messages like these, the public will soon want access to much more information.

- **Use personal pronouns for the organization:** Pronouns personalize the message and help with credibility and identification. Use phrases such as, "We are committed to …" or "We understand the need for …"

  When Lieutenant General Russel Honoré, a native of Louisiana, came to New Orleans to take over Hurricane Katrina relief efforts, he recognized that the people had been waiting days for relief and were frustrated with FEMA efforts. In his comments to CNN on September 2, 2005, Honoré showed he was "one of them" and would keep the focus on humanitarian relief.[7] He said:

  > "The mood here, of the people, are they are anxious to get out of here. They would rather be home. And we are going to take them from here, and get them to a place where they can have more of a normal life, with a place to sleep, and with some degree of comfort. But the people, by and large … these are families that are just waiting to get out of here. And they are frustrated. I would too. I get frustrated at the cash register counter when the paper run out. This is not an instant solution. And it's hard work, and they are frustrated. And in a way, we are too. But we're doing our best. We got the resources started, and we're going to continue to flow them now we're at the Convention Center."[8]

- **Avoid technical jargon:** Jargon creates a barrier between the sender and receiver. Avoid creating this barrier by saying certain things in less complex ways. For example:
  - Instead of saying "people may suffer morbidity and mortality," say "people exposed may become sick or die."
  - Instead of "epidemic" or "pandemic," say "outbreak" or "widespread outbreak."
  - Instead of "deployed," say "sent" or "put in place."
  - Instead of "correlation," say "relationship" (avoid using "cause").
  - Instead of "surveillance," say "monitoring."

- **Do not use unnecessary filler:** Background information and details can be saved for other times and outlets, such as fact sheets.

- **Avoid condescending or judgmental phrases:** Do not use statements such as:
  - "You would have to be an idiot to try to outrun a tornado."
  - "Only hypochondriacs would need to walk around with a prescription for Cipro."

  Both ideas have crossed the minds of people who are neither idiots nor hypochondriacs. Nothing good happens by insulting audiences with words or the tone of your voice. That doesn't mean you should condone the behavior. Instead, you should validate the impulse, but offer a better alternative and the reason why it's better.

- **Attack the problem, not the person or organization:** If criticism of a person is absolutely necessary, such as someone who has given wrong information, first address the information, and then suggest that there may be better sources.
- **Promise or guarantee only what can actually be delivered:** Promise what you can deliver. Furthermore, promise to remain committed throughout the emergency response. In general, the principle of under-promising and over-delivering is particularly important during a crisis.
- **Avoid speculation and assumptions:** Avoid playing worst-case scenario. Stick to the known facts. If there is no information suggesting an outbreak involves Ebola, avoid mentioning it. If the facts are not known, don't fall into the "what ifs." Instead, describe the steps you are using to get the facts and help the audience deal with the uncertainty while all the facts are uncovered. Speculation weakens credibility and may create needless anxiety.
- **Avoid discussion of money:** In the initial phase, discussion of the magnitude of the problem should be in context of the health and safety of the public or environment. Loss of property is secondary. The amount of money spent on the crisis is not a substitute for the level of concern and response from organizations.
- **Avoid discussing liability:** Questions of cause, blame, responsibility, and liability often follow a crisis. It is not appropriate to discuss them at the early stages. Instead, use statements like "Our focus right now is on containing the situation."
- **Do not use humor:** Seldom if ever is humor a good idea. People rarely get the joke when they are feeling desperate. Humor is a great stress reliever behind closed doors. However, be aware that microphones are often on and cell phones can easily capture a behind-the-scenes moment. Anyone who has responded to an emergency knows that inappropriate humor sometimes creeps in as a coping mechanism. Be cautious not to offend others who are responding to an emergency, even behind closed doors. Remain sensitive when speaking to the public. One person's attempt at humor may be another's insult.

Using CERC Principles

Pre-crisis Phase: Building Consensus for Actions

The pre-crisis phase is an important time when consensus can be developed about response strategies. Leaders should be pressured to finalize protocols for action. These pre-crisis actions can save valuable time during an emergency. In addition, audiences can be educated about risks and encouraged to prepare. It is also a time when carefully crafted messages can help build consensus around recommendations for action and facilitate planning. Messages built around the following strategies will help increase effective planning and preparation:

- Increase the expected gains from planning and preparation and decrease the expected costs.
- Increase the social pressure for preparation and planning.
- Improve the individual's ability to act by educating and providing information.
- Decrease the desirability of competitive alternative actions that may be taken instead of planning.

For example, if you want to encourage a community to prepare family emergency kits, consider doing the following:

- **Increase expected gains:** Share anecdotes about families who had kits and how they benefited from them in earlier disasters. Offer several possible cases where the kit would be important.
- **Decrease the expected costs:** Decrease the expected cost for a kit and explain what a family can receive for the price. Point out its longevity and value as a safety product for the home.
- **Increase social pressure:** Involve the community neighborhood watch program in promoting the development of kits. Ask community- and faith-based organizations to also help promote emergency kits. Ask neighbors to help each other develop kits specific to the community's anticipated needs. Use all communication channels to share information about civic groups involved in kit projects.
- **Improve the individual's ability to act:** Make the list of kit items easy to use and widely available. Encourage partner retailers to discount safety kit items during key times of the year, such as during hurricane season in Florida.

- **Decrease competitive alternatives:** Explain how putting together kits need not cost much, nor take much time. Explain that expensive prepackaged kits are less desirable, because they are not designed for each family's individual needs.

Consider a second example. What if there's a targeted population that remains indoors during the course of an infectious disease outbreak? This group may not want to travel to the emergency room or hospital during the outbreak, but you might consider the following:

- **Increase the expected gains:** Self-imposed isolation will protect people from unnecessary exposure. It is possible to avoid red tape and emergency room waiting time if they call a community nurse hotline. A trained nurse will assess their risk by phone and empower them to make the best decision about additional care.
- **Decrease the expected costs:** If the nurse agrees that a doctor or hospital visit is needed, an e-mail of the hotline contact with the patient's name will be placed on a reservation list at the medical facility. This will give the patient priority in the waiting room, meaning he or she will be placed ahead of those who have not gone through the screening process.
- **Increase present social pressure:** Engage community, civic leaders, and trusted health-care professionals to present the benefits of using the hotline. Messages by leaders can explain the reduction of confusion by allowing dedicated health-care workers to treat those in immediate need of care.
- **Improve the individual's ability to act:** Widely publicize a toll-free number, ensure that contact is made with little or no waiting, and ensure that a satisfaction check is made before the call ends.

Culture and Your Message

Culture is a complex set of values, ideas, attitudes, and symbols that shape behavior.[9] It consists of the language, beliefs, behaviors, objects, and traditions that are characteristic of members who belong to a particular group. This may be a society, a nation, an institution, a regional group, or an ethnic group. Bear in mind the following aspects of culture:

- People self-identify through their cultural affiliation and take meaning from their experiences.
- Cultural norms are transmitted from one generation to the next and to new members as they identify with that group.
- People can belong to several cultural groups at the same time. Most people identify to one degree or another with their primary culture. But people are also members of smaller subgroups within this larger culture. This includes groups based on community, region, religion, or ethnicity.
- Culture is adaptive. As the needs of a society change, its values change to meet those needs. Because cultural norms influence how people live and behave, culture has important implications for communication, including emergency communication.

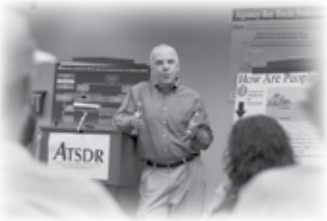
The United States is culturally diverse, and growing more so. According to the 2010 U.S. Census Bureau report, minorities are about 35% of the U.S. population. In addition, almost 20% speak a language other than English at home and 12% are foreign-born. It is estimated that these minority populations will become the majority by 2042 with one in three U.S. residents being Hispanic. By 2023, more than half of all children will be of a minority race.

Public health communicators need to be aware of the cultural diversity in the populations they serve. They also need to be aware of how cultural factors affect communication during a crisis:

- **Language:** About 30 languages are commonly spoken in U.S. households. English is the most common, spoken by about 82% of the population. Spanish is the second most common, spoken by about 12%.[10]
- **The perception of risk:** Different cultures have very different experiences with risk[11] and have often developed specific methods of risk management. For example, African Americans in New Orleans saw how Hurricane Katrina affected their community disproportionately. Some communities have cultural practices, such as eating potentially harmful foods, that enhance their risk of illness. Discussions of risk should be sensitive to these cultural differences.
- **Beliefs about institutions, including government:** Cultural and ethnic groups often develop their own institutions, such as faith-based organizations, social groups, nongovernmental organizations, and political organizations and identify with those institutions. Some may have had different experiences with government agencies and may not trust that agencies are always helpful or care about their values.
- **Credible sources of information:** Cultural groups often develop their own networks of communication. Ethnic media outlets, such as newspapers, radio stations, television stations, and Internet-based media, are among the fastest growing media in the country. They are particularly important sources of information for new Americans.
- **Rituals for grieving and death:** Most cultures have specific, relatively unique beliefs, rituals, and practices for death, dying, and grieving. These may be impacted during a crisis. For example, some cultures believe that grieving should be intensely private. They may feel that the presence of the media interferes with this practice.
- **Beliefs about family relationship and roles:** Many cultures and ethnic groups look to their family as the main point of cultural reference. Families can exert strong influences on individual behavior. In fact, specific expectations and roles can develop for various family members such as a father, mother, and first-born son.

"Some tribes still place a lot of stock in their spiritual leaders. So you have to work in conjunction with them in order to get that message out to the people on the reservation or within that community."

Sharon KD Hoskins;
Office for State, Tribal, Local, and Territorial Support;
Centers for Disease Control and Prevention



- **Beliefs about acceptable and appropriate forms of communication:** Cultures may dictate communication protocols, including rules for who talks to whom and who represents or speaks for the family or even a community. Norms may exist for how direct messages can be and which nonverbal messages, such as eye contact or hand movement, are appropriate.
- **Emphasis on the individual versus the group:** Some cultures emphasize that the rights and needs of the individual are more important than those of the group or community. Others believe that the needs of the group should take priority. These differences may influence the kinds of risk messages that are prepared and the ways in which communities respond to a crisis. In one case, vaccinations may be offered to individuals and promoted as a way to protect one's self. In the other case, families may be encouraged to get vaccinated as a group.

Culture is among the most complex communication issues to manage during a crisis. The more you know about a particular cultural group, the greater the chance your communication will be effective.

There's little time to acquire detailed cultural knowledge during a crisis. You may need to turn to a cultural agent, a person from that culture, perhaps a leader or respected elder, who can help you understand how a particular culture will view an issue. Be aware that cultures are not always unified. It may be challenging to find a cultural agent who is accepted by all. It is important to build ties to various ethnic and cultural communities before a crisis occurs, as illustrated by the case presentation at the end of this chapter.

Organizing Information for Emergency Response Presentations

Public health emergencies come in varied sizes and durations. After the initial response occurs, you may need to present updates or background information to community leaders, decision makers, Congress, or citizens. Perhaps you will need to explain certain recommendations made at each step of the recovery effort.

Depending on the purpose of the presentation and any expected resistance to the message, the way your information is presented can help open audiences to receive it. Consider the following points in arranging key ideas:

- If a message arouses exceptionally intense feelings of anxiety, people tend to ignore any message content that follows. People must be prepared for messages, especially those likely to evoke emotion. Give listeners an opening statement to increase their recognition and attention level. Your introduction should:
  - Prepare the audience for the upcoming subject.
  - Acknowledge its emotional effect.
  - Tell them that you will go over the material as many times as necessary.

- Listeners will tune the speaker out if they suspect that his or her message will not confirm their beliefs or opinions. Look for those elements you know you share with your audience and upon which you agree. Start with those common elements and build on them.
- Messages can inoculate audiences by providing a small dose of a counter argument first. This is similar to the way a mild dose of a disease organism can inoculate a person. With controversial issues, it is helpful to acknowledge to your audience that other perspectives and opinions exist, and that some people may disagree with your position.

See Hurricane Katrina Emergency Communication Response, U.S. Gulf Coast, 2005, at the end of this chapter for a case study of how communication messages were adapted by CDC to meet the audience's needs for the long duration of the response.

Several kinds of presentations are described in the following sections. They relate to presentations public health officials may be asked to make during and after a crisis. In all cases, developing an outline of the main points and supporting information before creating the message works well. Information can be organized and presented using a variety of patterns. (See Table 3–1 below for a list of the presentation patterns discussed here)

Presentation Types Based on Situation

- **Sharing New Information When Facing Little or No Resistance:**
  - Using a direct pattern for organizing main ideas, as well as a conclusion, is often effective in presenting crisis information:
    - » Develop the idea with supporting information.
    - » Present the bottom line up front; this will be preferred by most busy decision-makers.
    - » Don't save the big idea or main conclusion until last. This will increase expectations. For example, if you waited until the end of the presentation to announce that the actions you advise will decrease the spread of infection by 25%, your audience may be expecting that these actions would stop all spread of the disease. They will be disappointed. By stating projected outcomes first, you can set clear expectations.
  - Persuasive presentations sometimes benefit from a more indirect pattern. This may involve building the argument with secondary concepts until you offer the most powerful argument. You might choose to list each of the benefits of a new public health policy and finish by saying something like, "it will save lives and also save billions over the next 10 years."
- **Progress Reports and Instructions:**
  - Often, progress reports and step-by-step instructions are best organized chronologically. Progress reports, such as updates on a response, might begin with the first actions taken and then proceed to the most recent. This chronological pattern helps the listener follow where you've been and where you're going. However, this technique can be overused, especially if

there are frequent updates. It remains a useful pattern if listeners need to understand the ongoing development of ideas.

- Also consider a priority order pattern for progress reports. In this pattern, the most significant point is presented first with other developments following in descending order of importance.
- When offering step-by-step instructions, such as how to assemble an emergency kit, present information using a chronological pattern. Number the steps. This makes it much easier for the audience to follow instructions. Also, keep the instructions brief, yet easy to understand. Remember that people generally can only retain about five to seven pieces of information in their short term memory.

Problem Solving:

Use the criteria-application pattern for presentations that offer a solution to a problem:

- Early in the presentation, suggest criteria or standards for evaluation; then, compare solutions or choices against those standards. The criteria should describe the best possible case and then explore available options.
- This approach highlights the underlying reasoning and decision-making process.
- As long as the audience agrees with the decision criteria, it can be very persuasive. It invites the audience into the decision-making process.

Explain Why Something Happened:

Use the cause-effect pattern to explain how something occurred or to help predict the consequences of an action:

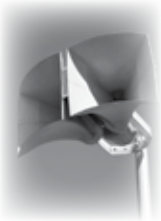
- It's easy to confuse cause and effect, so apply this pattern carefully. Cause is not always clear, particularly when it involves a crisis.
- Be careful not to simplify your conclusions or make them too optimistic with statements such as, "If only we had a training program for administrators, we wouldn't have such difficulty getting decisions finalized in an emergency."
- Be very careful not to speculate when using this approach.

Teach a New Concept or Process:

One way to teach a new concept is for the speaker to begin with something familiar or already known by the listeners and move to the unknown or more complex. By using an increased difficulty pattern, you can help your audience take in complex information in a way they can accept.

Table 3–1. Types of Emergency Response Presentations

Type of Presentation	Methods of Organizing	Benefits
Sharing New Information When Facing Little or No Resistance	**Direct Pattern:** The main idea or conclusion is presented first, and then developed with supporting information. **Indirect Pattern:** This approach builds an argument with secondary concepts and provides the most powerful argument at the end.	**Direct Pattern:** This makes the main idea clear so the audience doesn't assume certain expectations of solution or outcomes. **Indirect Pattern:** This shows specific examples or lines of reasoning that lead audience to a particular conclusion.
Progress Reports and Instructions	**Chronological Pattern:** This shows how several events developed over a period of time or offers step-by-step instructions. **Priority Order Pattern:** This presents the most significant point first with other developments following in descending order of importance.	**Chronological Pattern:** This helps the listener follow progress points of where you've been and where you're going, and makes it easier for the audience to follow instructions. **Priority Order Pattern:** This is good for progress report presentations when there are time constraints or when you've already given several progress reports.
Problem Solving	**Criteria-application Pattern:** Criteria or standards for evaluation are suggested first and then solutions or choices are compared against criteria. Criteria should describe the best possible case and then explore available options.	**Criteria-application Pattern:** This is persuasive because it highlights your underlying reasoning (as long as the audience agrees on decision criteria). It also invites the audience into the decision-making process.
Explain Why Something Happened	**Cause-effect Pattern:** This explains how something occurred or helps predict the consequences of an action.	**Cause-effect Pattern:** This is persuasive, but be careful that conclusions aren't too simple, too optimistic, or based on speculation.
Teach a New Concept or Process	**Increasing Difficulty Pattern:** Start with something known by the audience and add more complex concepts.	**Increased Difficulty Pattern:** This helps the audience take in complex information in a way they can accept.



Presentational Dos and Don’ts

Speaker credibility is a key factor in holding audience attention and persuading them through your message. The following are some dos and don’ts that can enhance your presentation—as well as your credibility.

- **Dress for success:**
  - Do wear something that conveys professionalism and experience, such as a suit, uniform, or lab coat. It should also be comfortable.
  - Don’t wear costumes that reflect someone other than who you are and what you do. For example, don’t wear a white lab coat and stethoscope if you are not a clinician.
- **Be prepared:**
  - Do know your presentation information.
  - Do know the room and the technology in the room.
  - Do anticipate potential questions ahead of time.
- **Keep the target audience in mind:**
  - Do focus your presentation on whom you are trying to reach, such as the public, public health officials, or government officials.
  - Do remember that reporters are there to help get your message to the public. They are not the final or only audience.
- **Start the presentation well:**
  - Do choose the right opening. The wrong opening words can destroy credibility.
  - Don’t start by apologizing with statements like, “Unaccustomed as I am to public speaking,” or “I’m here to bore you with a few more statistics.”
  - Don’t begin with something that may be considered offensive, like an off-color joke or a sarcastic or ridiculing statement. Don’t start with a gimmick like writing the word “sex” on your presentation graphic.
  - Don’t start with the same opening regardless of audience or situation, because the audience will recognize a canned presentation.
  - Do get the audience’s attention by introducing your subject, establishing your credibility, and previewing your main ideas.
- **Use supporting visual aids:**
  - Don’t use visual aids that are distracting. They should support the information you are presenting. Visual aids such as PowerPoint presentations should emphasize main points. They

may also help your audience understand complex or statistical information via charts and tables.

- Don't make visuals and text complex by using too many bullet points, text, fonts, or colors that are difficult to read.
- Don't have too much information crammed on a single screen.
- Don't use images that are too graphic.
- Don't use colors that traditionally show danger such as red or orange.
- Don't use presentational gimmicks, such as distracting visual effects, for images when discussing a crisis.
- Do practice with presentation aids ahead of time. This is imperative. Your message is lost if your audience is focused on why the next slide isn't working or why the video won't run.

- **Convey appropriate emotions:**
  - Do convey calmness and confidence through posture, tone of voice, facial expressions, and gestures. Because your audience will make emotional connections with you through your delivery, your calm and confident nonverbal cues will help the audience remain calm and confident in their own actions.
  - Don't fidget or smile while talking about a tragic situation. This can contradict what you are saying.
  - Do use empathy to convey care and concern towards the public during your presentation.

Additional Considerations for Presentations Before, During, and After a Crisis

When the purpose of communication is to make a call to action or change behavior, it is important to be aware of the target audience. Crises take a wide variety of forms. It is often hard to predict what issues or factors might arise. Ask yourself questions like the following:

- "Who are they?"
- "What do they believe now?"
- "Are you a credible source of information for them?"

These types of questions will help you build a successful presentation. In addition to knowing the audience specifically, there are a number of points to keep in mind. This is especially true when building a case for action. Some factors you as communicators should take into account when preparing messages follow:

- Audiences selectively receive and interpret messages based on their existing knowledge, attitudes, beliefs, and current needs.

- Listeners are more receptive to a message that is consistent with their attitudes and beliefs.
- Messages phrased in terms of the listener's interests and needs are more successful than those given from the speaker's point of view. Using statements such as, "Follow the rules for safe generator use; help protect you and your family from carbon monoxide poisoning," demonstrates a benefit for the audience.
- Persons with high self-esteem are less readily influenced than those with low self-esteem.
- Overtly hostile or excessively apathetic listeners are less likely to be influenced by your messages.
- Mental, verbal, or physical listener participation improves the chance that messages will influence them. For example, you might say something like, "Raise your hand if you have planned an evacuation route."
- Some audiences respond more to facts or logical appeals. Some respond more to emotional appeals, and some are influenced primarily by the speaker's credibility.

Group Influences on the Effects of Your Messages

Group influences are critical, especially during the uncertainty of a crisis. A person's intention to take a particular action will depend both on his or her perception of consequences and on the perception of others' wishes. Health-care workers and physicians can be important sources of social influence, as can family, community, and culture.

For someone to move to action, he or she must see a personal benefit to taking the action and believe the action can be accomplished. Seeing or hearing that others are taking actions, such as getting a flu shot, can be a powerful social influence. Consider the following points about your audience:

- Listeners are often influenced by beliefs shared by those around them.[12] Their tendency is to conform.
- Listeners may discount the speaker's message if it is counter to the norms of the group. A listener's tendency to accept that message is inversely related to the value he or she places on group membership.
- Audience members will be searching for nonverbal cues[13] from other audience members to confirm or refute the speaker's message.
- Some members of your audience may be influenced by seeing others take action. This is a critical factor in some recommended emergency actions, such as evacuations.
- Your audience may see that their behavior will involve a tradeoff between positive and negative consequences. Your target population will be asking themselves many of these questions:
  - What will I gain if I accept this proposed behavior?
  - What will it cost me to do it?

- What do those who are important to me want me to do?
- What are other people around me doing?
- Can I actually carry it out? Do I have the resources and capacity?
- How can I confirm this information?

If answers to those questions are offered in a candid and satisfactory manner, the proposed action may be more readily accepted. The more socially desirable and easily undertaken a recommended action is, the more likely that it will be accepted.

Communicating About Death One-on-one

During a catastrophic event, where people are ill, dying, or in need of treatment, it might be your job to talk with individuals about the current situation. A significant body of literature describes the importance of expressing empathy and empowering decision making[14,15] between the medical professional and the patient in a medical-care setting. However, most of this work assumes the luxury of time that usually does not exist in a crisis situation.

You may be recruited for the first time to educate patients or speak to groups during a crisis, even if you do not have much experience with patient-professional dialogue.

In addition, if an evolving disease outbreak in a community begins to involve members of the response teams or their families, supervisors and team leaders may find themselves engaged in supportive conversations. The following are some basic thoughts about communication in an intimate but highly emotional public health emergency situation:

- **Empathize with the person and their family:**
  - People indulge in serious, intense, and meaningful communication only for short time periods.
  - Small talk can provide important hints about a person's concerns.
  - Privacy and confidentiality are important requirements. Ensure that all information shared will be kept private, and find private spaces for these types of conversations.
  - Allow communication free from interruptions. Strong reactions such as crying shouldn't be interrupted.
  - Do not to answer questions outside of your area of expertise. Get permission from the individual to refer him or her to an expert.
  - Emergency-response personnel sometimes try to mask their emotions behind their professional role. Professional counseling should be made available as soon as possible.

- **Listen carefully:**
  - Place the speaker's needs above your own.
  - Use open and accepting body language; do not cross your arms.
  - Always be honest in responding.
  - Do not interrupt to give advice.
  - Accept moments of silence.
  - Much communication is nonverbal, particularly during highly emotional times.
- **Be careful:**
  - Think about the meaning of the words and the gestures.
  - Value judgments may hinder communication and understanding.
  - Teasing belittles the individual.
  - Assigning blame can cut off communication.
  - If a person tenses at your touch, withdraw.
- **Use personal messages:**
  - Use the name of the person to whom you are talking in the conversation.
  - Ask a clarifying question like, "Can you help me understand?"
  - Allow the conversation to evolve. Accept silence and don't push a dialog where you hope it will go, if it doesn't go there naturally.
  - Be sensitive to a person's nationality, ethnicity, religion, age, and emotional state.
  - When possible, use the words the person uses.
  - Self-disclosure may help the person expand on the topic.
  - When responding to someone, say "you're crying" instead of "you're sad." This allows the person opportunity to share the feeling behind the action.
  - How something is said is often more important than what is said.
- **When speaking to grieving family members :**
  - Presence is often more important than conversation.
  - Family members may voice feelings with strong emotion such as "I don't know how I'm going to live without my husband" or "Why would God allow this to happen?"

- Short statements of condolence, such as “I’m so sorry,” “This is a sad time,” or “You’re in my prayers,” are enough of a response.
- Use “death” or “dying,” not softer words, as many people feel uncomfortable with statements like “expired” or “received his heavenly reward.” Use the same words as the grieving person to respect cultural differences.
- Refrain from platitudes like, “She lived a good life” or “She is no longer suffering”—statements like that can trivialize the family’s loss.
- Avoid sharing your personal experiences of death and grief, so you can keep the focus on the family member.
- Be careful to avoid sending signals that you are distracted or need to do something else. For example, don’t glance at papers, your watch, the elevator, the clock, or others in a conversation. Focus on the person, and speak gently, without haste.
- Offer support, don’t wait to be asked.

Audience Feedback

Feedback is a critical part of the communication process. It allows the sender to understand how the message is received and how it is being interpreted. The sender then has the ability to adjust the message and improve its effectiveness. Unfortunately, emergency and crisis conditions are usually not conducive to effective feedback.

Pre-event planning is the time to develop the mechanisms you use to obtain and analyze feedback from target populations. Understand how this information will be used in reassessing communication. When you plan your feedback mechanisms, consider the following points:

- Response operations should be planned. When they are, you will have straightforward methods of obtaining feedback.
- Listen to your target populations. Comments will be direct or through the media. In addition, community leaders and advocates, congressional representatives, and lawyers will have their say.
- Be sure there are open channels between the public and your organization. Solicit public feedback.

Reality Check

In the heat of a public health emergency, public feedback can be too little or too much:

- People in a disaster zone may not have any means of communicating with you.
- Feedback can be so frequent as to overwhelm your operation. It may be impossible to answer every person individually.
- It is possible to employ an automated system that says "we're interested in what you have to say" and offers a place where frequently asked questions can be found.

Provide the public with toll-free public information lines, an e-mail address, and a U.S. postal address for comments before and during an emergency. The more public outrage the event generates, the more opportunities people will need to express themselves. These messages can be valuable to you as a communicator. They will help you understand:

- What questions need answers
- What is most upsetting
- Which items need further explanation
- Which recommendations are not working

A member of the public may begin with a question during a phone call but end with a concern. Be sure public response services can answer questions and detect trends in public comments. It's not just about pushing information out; it's also about receiving feedback.

It's possible that the questions from the public may provide clues as to what the media will soon be asking. For example, immediately after the September 11, 2001, tragedy, CDC public response lines were indicating topic trends from the public before information reached the media. The predictive value of early feedback can help your communication team manage issues instead of simply reacting to them.

In addition to monitoring direct feedback, you can also get a feel for the public's responses to the emergency through traditional and social media monitoring. If a rumor takes flight on the Internet, you must know about it in order to respond. The media can reflect public reaction.

Use common content or trend analyses to compile a useful report for your public health emergency leaders. Tell them quickly when your analysis shows that something is or is not working. You may not be the most popular member of the team in this role, but it's vital that the public's input is taken into account.

Message Template 3–1. Message Development for Emergency Communication

First, consider the following:

Audience	Purpose of Message	Method of Delivery
• Relationship to event • Demographics (age, language, education, culture) • Level of outrage (based on risk principles)	• Give facts/update • Rally to action • Clarify event status • Address rumors • Satisfy media requests	• Print media release • Web release • Through spokesperson (TV or in-person appearance) • Radio • Other (e.g., recorded phone message)

Six emergency message components:

1. **Expression of empathy** .....

   .....

2. **Clarifying facts/Call for action**

   Who .....

   What .....

   Where .....

   When .....

   Why .....

   How .....

3. **What we don't know:** .....

4. **Process to get answers:** .....

5. **Statement of commitment:** .....

6. **Referrals:** .....

   For more information .....

   Next scheduled update .....

Finally, check your message for the following:

- Positive action steps
- Honest, open tone
- Say "we" not "I"
- Careful with early promises (can you do it?)
- Use simple words, short sentences
- Apply CERC principles
- No jargon
- No judgmental phrases
- No humor
- No extreme speculation

Case Study: Hurricane Katrina Emergency Communication Response By CDC, U.S. Gulf Coast, 2005

(Extracted from Vanderford, Nastoff, Telfer, and Bonzo, 2007)[3]

One recent case where crisis communication principles were applied to public health was CDC's response to Hurricane Katrina in 2005. This case study discusses the strategies and tactics used by CDC's Emergency Communication System (ECS) during the Hurricane Katrina response and how they were adapted to the situations. These strategies helped meet the challenges posed by the extended nature of the disaster and by the failure of most electronic communication systems in the disaster zone.

Hurricane Katrina made landfall three times during August 23–29, 2005, when it reached Louisiana. The hurricane produced storm surges greater than any previously recorded. About 80% of New Orleans' 485,000 residents were evacuated, and an estimated 1,220 deaths were blamed on the storm. Along the Gulf Coast, about 1.7 million households in Alabama, Florida, Georgia, and Mississippi were without power. In response to the extensive destruction and related public health threats, CDC deployed more than 600 staff members to provide technical assistance in affected areas. Another 500 were deployed to CDC's Emergency Operations Center to execute response plans, develop needed resources, provide offsite leadership about potential health risks, and mitigate adverse health effects.

Along with providing science and medical professionals, CDC activated its ECS. The ECS included health communication, education, and public affairs specialists. They provided a coherent communications framework, coordinated surge capacity, and ensured that critical health protection messages could be delivered to diverse audiences, including clinicians, affected communities, and state and local public health officials, through multiple channels, including the Web, mass media outlets, hotlines, and CDC's Health Alert Network.

Communication Activities and Challenges During Emergency Response

As Hurricane Katrina made landfall, creating flooding and power outages, CDC's communication specialists were faced with three primary challenges: to distribute health and safety messages rapidly, to adapt messages to diverse communities, and to address evolving needs for health information.

Challenge Number 1: Rapid Message Distribution

The speed with which an agency responds to the public can be a sign of how prepared they are. A fast response accomplishes the following:

- It builds credibility.
- It lets the public know there is a system in place.
- It reassures the public that appropriate actions are being taken.

For the response to Hurricane Katrina, power outages were more extensive and sustained than in previous efforts. This prevented rapid distribution of health messages to the public and other public health officials. In addition, CDC's dependence on electronic channels like websites, radio, and television, severely hindered its ability to deliver health information. When CDC tried to deliver printed copies of the information, delivery services and CDC trucks could not reach the area because of impassable roads.

CDC turned to local, face-to-face channels for delivering health-protection messages. Thirty health communication, health education, and public affairs specialists were sent to local and state health departments in Louisiana, Mississippi, and Texas. The staff helped identify and fill information needs, helped Atlanta-based staff develop and adapt needed health messages, and identified and used whatever local communication channels were available. They also assisted local agencies by hand delivering printed copies of health information to workers and affected communities.

CDC used emerging partnerships with organizations such as the American Red Cross, faith-based organizations (FBOs), major home improvement retailers, and long-term shelters and evacuation centers. FBOs were seen by the public as trusted sources of health information and were already established in their communities. CDC sent health information to approximately 300 FBOs during the response. In turn, the FBOs made CDC aware of available communication methods and delivered health messages to underserved populations.

Challenge Number 2: Message Adaptation for Local Use

Despite developing health messages to reflect literacy levels and diverse cultural contexts prior to the disaster, the Hurricane Katrina response revealed that substantially more adaptation was necessary. A primary request was to rewrite messages for low-literate audiences. In addition, requests for primarily visual messages or pictograms created a special challenge to maintain scientific accuracy of information

while persuading individuals in their current circumstance to use the information. For example, chainsaw safety messages included wearing pants, boots, and long sleeves as well as buying ear and eye protective gear. However, these recommendations were not accepted. They were ignored in the hot, humid Gulf Coast or were seen as too expensive.

In response to this problem, ECS created easy-to-read versions for low-literate audiences on topics ranging from mold cleanup to hand sanitation. CDC also created a set of cards similar to playing cards that contained simple prevention messages. The cards were later adapted for Hispanic-American and Vietnamese-American evacuees. In addition, text was translated to pictures, and some pictures were simplified to line drawings or pictograms that used international symbols. Graphic artists worked with ECS for 10 days to develop these pictograms. They included accurate, credible information that was also easy to understand and culturally appropriate.

CDC also adapted public health messages to increase the credibility of the information. Many Gulf Coast residents blamed the federal government for the slow and inadequate response to the storm. Some state and local agencies thought local residents would not find health information from federal agencies credible. To overcome this opinion and relay CDC's health protection messages, CDC helped state and local agencies replace the CDC logo with logos of local agencies.

Challenge Number 3: Extended Emergency Response

Most emergency communication plans treat the crisis response stage as one unified stage needing a single set of health information messages. In an extended emergency, however, it may cause you problems if you overlook the multiple, distinct phases that represent the response stage.

The emergency response stage of Hurricane Katrina lasted for more than a month. Early in a response, primary needs include the following:

- Accessing clean water
- Acquiring shelter
- Maintaining personal safety and security

Until those primary needs were met, providing information on topics such as chainsaw injury prevention, stress management, and mold cleanup was not practical.

CDC soon discovered that new health information needs became known and evolved as the crisis response focus changed. For example, health information was initially needed to protect people from storm winds and falling debris. Later, information was needed to prevent drowning, avoid driving in flood waters, protect against electrical hazards, and prevent carbon monoxide poisoning. As evacuees packed evacuation centers, other health information needs emerged such as promoting hygiene, controlling infection, managing stress, and managing chronic diseases.

Lessons Learned by CDC's Communication Staff

Katrina demonstrated many challenges to effective health information in the aftermath of a large-scale natural disaster. These included how to develop low-technology delivery systems for public health and safety information, how to create systems for easier and faster adaptation of hurricane-related messages, and how to release disaster-related health information in phases, particularly in an extended emergency.

- **Improving Low-tech Information Delivery:** Local organizations are essential links between residents at disaster and recovery sites, and federal agencies trying to distribute health protection information.

  CDC continues to solidify and formalize partnerships with local groups encountered in the later stages of Katrina, including the American Red Cross, Salvation Army, home improvement retailers, and FBOs. This includes increasing CDC's understanding of these groups' needs and interests by developing relationships before an emergency occurs.

- **Developing Systems for Faster Adaptation:** CDC continues to develop automated systems to quickly and easily tailor materials. These systems include the following:

  - Key documents that allow images, including logos, to be inserted and deleted easily
  - An image library with visual elements that are appealing to different audience segments
  - Versions reflecting different literacy levels
  - Versions with and without CDC and HHS logos

  The system allows for new versions of critical messages to be created quickly while maintaining consistent messaging. Although power outages may prevent health departments from accessing the system, CDC staff members in Atlanta can meet adaptation needs of local communities more quickly. In addition, CDC provides multiple versions of the same messages identified by the following:

  - Literacy level
  - Audience
    - » Clinicians
    - » Public
    - » Public health workforce
    - » News media
    - » Emergency responders

- Context
  - » Schools
  - » Clinics
  - » Evacuation centers
  - » Source
  - » With CDC logos
  - » Without CDC logos

These multiple versions are offered to provide an enhanced library of health messages to meet local needs.

■ **Releasing Messages in Multiple Phases During Crisis Response:**

Based on reviews of communication during Hurricane Katrina, CDC has developed a multiphased approach (see Table 3–2) to emergency response for extended disasters relating to hurricanes and flooding. The following list provides an example of a multiple-phased approach.

- The period immediately preceding the storm through the first 24 hours after the storm
- 1–3 days after the storm
- 3–7 days after the storm
- 2–4 weeks after the storm
- 1 month and longer after the storm

You can use monitoring and analysis during a disaster to determine whether messages distributed in early phases need to be reissued later. This may be done to address persistent health threats or previously ineffective or unevenly distributed health information.

The phased approach to disaster planning can help communication responders deliver health information to meet immediate needs and forecast long-term needs at the same time.

*Table 3–2. Phased Message Dissemination for Hurricanes and Floods**

(Extracted from Vanderford, et al. 2007, p. 21, with modification)

Period of dissemination	Topics
Immediately preceding landfall through first 24 hours after the storm	Hurricane readiness, preparations for power outages, preparation related to prescription medications, evacuating the area of a hurricane, staying safe in your home during a hurricane, worker safety in a power outage, CO poisoning prevention, flood readiness, electrical safety, prevention of heat-related illnesses, hand hygiene in emergency situations, coping with traumatic events, emergency wound care, protecting your pets, animals in public evacuation centers
1–3 days after the storm	Re-entering your flooded home, how to clean a flooded home safely, worker safety after a flood, preventing chainsaw injuries during tree removal, preventing injuries from falls (ladders/ roofs), personal protective equipment and clothing for flood response, managing acute diarrhea after a natural disaster, cleaning and sanitation after an emergency, keeping food and water safe after a natural disaster or power outage
3–7 days after the storm	Protection from animal- and insect-related hazards, electrical safety and generators, infection control and prevention in evacuation centers, impact of power outages on vaccine storage and other medicines, preventing violence after a natural disaster, animal disposal after a disaster
1–4 weeks after the storm	Rodent control after hurricanes and floods, trench foot or immersion foot, environmental health needs and habitability assessments, protection from chemicals released during a natural disaster, respiratory protection for residents re-entering previously flooded areas and homes
One month and longer after the storm (emphasis is on long-term health consequences)	Suicide prevention, issues surrounding school-age hurricane evacuees attending new schools, mold removal from flooded homes, mold allergies related to flood cleanup

**This table represents anticipated periods of dissemination; however, the actual periods will vary depending on location, climate, time of year, and other factors.*

Summary of case study

Hurricane Katrina was a reminder of the impossibility of completely preparing for disasters. Communication during a crisis is dynamic and creates needs to adapt systems, procedures, channels, and messages. Each disaster is unique, and while basic principles of effectiveCERC can be expected to operate in most crisis contexts, flexibility and innovation should be included in the CERC toolkit.

Conclusion

Communication is a dynamic process involving many elements. Understanding the audience as the primary message target is critical to effective communication. Audience analysis and feedback allow the message to be adapted to fit audience needs, interests, cultures, and values. Many audiences will be associated with most crises. Plans should be developed to reach them all. Important principles of message design, along with audience analysis and feedback, will help you develop effective messages.

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Notes:

CRISIS EMERGENCY RISK COMMUNICATION
2012 EDITION

Chapter 4: Crisis Communication Plans

Chapter 4: Crisis Communication Plans

This chapter will promote understanding in the following areas:

- Crisis phases
- A seat at the table for communication
- Developing the plan
- Applying the plan during the first 24–48 hours
- Applying the crisis plan throughout the response

Planning is probably the most important step that ensures effective actions. While a plan cannot guarantee successful management, it can create a template and process for initial actions and decisions. The process of planning may be more important than the resulting plans themselves, as the relationships and trust built during the process become invaluable in a crisis situation.

Crisis Phases

Understanding the pattern of a crisis can help you, as a communicator, anticipate problems and respond effectively. While every crisis is unique and develops in its own way, these generalized patterns have been shown to be part of most events. By dividing the crisis into phases, communicators can anticipate the information needs of the media, stakeholders, and the general public. Therefore, your communication efforts must evolve. Each of the following phases has its own unique informational requirements.

Progression through each of the phases will vary according to the following:

- The event that triggered or initiated the crisis
- Level of harm
- Adequacy of the response, including the level of community resilience
- The intensity and longevity of the crisis, which will impact required resources and manpower

In the following sections, each of the stages is discussed along with the associated communication requirements.

Pre-crisis phase

The communication objectives during the pre-crisis phase include the following:

- Plan and prepare.
- Foster alliances with stakeholders.
- Develop consensus recommendations.
- Develop systems and redundancies such as hotlines, joint information centers (JICs), and websites.
- Test messages.

The pre-crisis phase is where the most important planning work should be done. While pre-crisis planning and preparation will not ensure successful crisis management, the lack of it puts your organization at an extreme disadvantage.

Crises develop over time. This is especially true if there have been years of poor planning and lack of preparation, which would worsen a crisis when it occurs. For example, a lack of preparation for a severe drought could lead to mass famine when a drought actually happens.

The pre-crisis phase may last for years. If handled properly, this phase involves proactive planning with stakeholders to anticipate and prepare for crises. When a crisis happens, it may involve a naturally developing threat, a manmade catastrophe, or an interaction of the two. For example, the Japanese crisis of 2011 involved an earthquake and a subsequent tsunami interacting with human developments and coastal communities, and severe damage at a nuclear power plant.

The types of crises that your organization is likely to encounter are somewhat predictable based on history, location, and other risk factors. Once an assessment identifies the most likely crises, it's easier to begin planning. You might anticipate crises such as floods, fires, infectious disease outbreaks, and chemical spills. You can then anticipate reasonable questions for various crises and draft preliminary answers.

You can draft initial communication strategies and messages with blanks to be filled in if a crisis occurs:

- Identify spokespersons, resources, and resource mechanisms.
- Develop training and refine plans and messages.

- Foster alliances and partnerships to ensure that officials and experts speak with one voice and that resources are available and shared.
- Consider conducting an emergency public health communication needs assessment to clarify what needs to be done (see Checklist 4–5. Needs Assessment for Crisis and Emergency Risk Communication at the end of this chapter).

Several checklists and worksheets are presented along with a detailed discussion of crisis planning at the end of this chapter. These may be useful in your pre-crisis planning.

Be sure to develop a plan during the pre-crisis phase. This is the biggest step you can take during this phase for improving your crisis communication.

Initial Phase

The initial phase of a crisis can be characterized by confusion, uncertainty, and intense media interest. Information is usually incomplete and the facts scattered. It is important to recognize that information from the public, the media, other organizations, and from within your organization may not be accurate. Situational awareness is at a premium.

Information will come to you from a variety of sources, some credible and some not. New information-sharing technologies deserve special consideration. Today's technology allows people to immediately provide updates and post information on social media sites. Some of this information may be useful for personnel working in an emergency operation center. At the same time, some of this information may be misleading. High volume or overloads of communication systems like phone systems, internal computer servers, and Internet servers can also be problematic.

The federal government helps to provide up-to-date situational awareness for local, state, and federal public health officials via CDC's Health Alert Network, often referred to as CDC HAN.[1] Urgent health-related messages are sent in real time to public health and safety agencies in affected areas. State health departments may then send these messages to local health departments, police and fire departments, clinicians, and other personnel whose job it is to protect the public during emergencies, natural disasters, outbreaks, and other health threats. After they are shared with public health officials, CDC HAN messages are also shared with the public.

A critical part of the communicator's role is to manage the following:

- Collect information about what happened.
- Interpret and separate the factual information from rumors.
- Determine the communication response.
- Coordinate with other response groups and agencies.
- Verify the magnitude of the event as quickly as possible.

Decisions in the initial phase have critical implications. There are few second chances to get communications right during this phase of a crisis. Organizational reputations are at stake. But it's important to recognize that agencies may be forced to communicate even when they do not have all the facts.

Emergency managers use the axiom "all disasters are local" to emphasize that crises happen in a specific place and affect a specific community or group of communities. In most cases, communities will need to manage the crisis during this phase using local resources. This includes community organizations and groups, local businesses, faith-based groups, and neighbors. Typically, a community should expect to be largely on its own for the first 72 hours.

Communication objectives during this phase will require that you as the communicator:

- Acknowledge the event with empathy.
- Explain to and inform the public in simple and clear terms about their risk.
- Establish organization and spokesperson credibility.
- Provide emergency courses of action, including how and where to get more information.
- Coordinate messages with other organizations and agencies.
- Commit to stakeholders and the public to continue communication and remain accessible.

When communicating in the initial phase of an emergency, it is important to present information that is simple, credible, accurate, consistent, and delivered on time.

This is the time to establish your organization as credible. A crisis creates high uncertainty. You can reduce public anxiety by providing useful information about the nature of the problem and what the public can do about it. Even when there is little information to offer, you can share how the organization is investigating the event and when more information will be available. At the very least, messages should demonstrate that the organization is addressing issues head-on. This means that its approach is reasonable, caring, and timely, and that it is responsive to the public's need for information.

At the same time, the pressure to release information prematurely can be intense. In most cases, all information must be cleared by the appropriate leaders or designated clearance personnel before it's offered to the media.

Crisis is a high uncertainty event and agencies will not be able to quickly verify all the facts. Organizations' reputations are on the line, however, and getting information right is critical.

In the initial phase of a crisis or emergency, the public wants information about the situation immediately, including who, what, where, when, and why:

- Provide timely and accurate facts, including where the crisis occurred.
- Say what is being done now.
- Give credible answers regarding the magnitude of the crisis, including possible threats to the public.
- Share the possible duration of the crisis.
- Explain as much as you can about who will fix the problem, and when.

Communicators should be prepared to answer questions like these quickly, accurately, and as fully as possible.

Communicators should avoid overstating what is known or over-reassuring. The public can recognize wildly optimistic statements. Such statements will reduce credibility. It is more appropriate to offer qualifications such as, "Based on what we currently know" or "The situation is still evolving." During the SARS outbreak of 2003, Dr. Julie Gerberding, then CDC Director, noted:[2]

> "There were a lot of times during SARS where we were trying to balance … being first, being credible, and being right. And we at CDC made the conscious decision that our credibility was the most important thing. And so that honesty of 'we don't know, we're sorry we don't know, we feel terrible we don't know and that we're all in this predicament,' … is a much better message than trying to pretend that you know something when you don't or try to reassure people when there really is no foundation for the reassurance."

Often the most honest and credible response is to acknowledge that, "This is an evolving emergency, and we simply do not have all the answers. As soon as we have them, we will inform you. This is what we know now."

Maintenance Phase

The maintenance phase generally begins when most or all of the direct harm is contained, and the intensity of the crisis begins to subside. As one crisis communicator commented, "You know you have reached the maintenance phase when you get to go home and take a shower." Communication objectives during this phase include the following:

- Help the public more accurately understand its own risks.
- Provide background and encompassing information to those who need it. Work to answer questions such as the following:
  - "How could this happen?"
  - "Has this happened before?"
  - "How can we keep this from happening again?"
  - "Will I be all right in the long term—will I recover?"
- Generate understanding and support for response and recovery plans.
- Listen to stakeholder and audience feedback and correct any misinformation.
- Explain emergency recommendations.
- Empower risk/benefit decision making.

As the crisis evolves, anticipate sustained media interest and scrutiny. Unexpected developments, rumors, or misinformation may place further demands on your organization's communicators. Experts, professionals, and others not associated with the response organization will comment publicly on the issue and sometimes contradict or misinterpret your messages. You are likely to be criticized about your handling of the situation. Resist becoming defensive. Plan to respond with information and explanations.

Staying on top of the information flow and maintaining close coordination with other agencies and spokespersons is essential. Processes for tracking communication activities become increasingly important as the workload increases. Tracking can be done electronically or with paper forms. For example, several crisis-response agencies have been utilizing commercially available collaboration software to track response tasks and agency incident reports. This allows all emergency response personnel to see the larger picture without duplicating services.

The crisis maintenance phase also includes an ongoing assessment of the event and continued allocation of resources for the response.

Resolution Phase

The maintenance phase and the resolution phase often blend into one another as the crisis continues to wind down. It is important to acknowledge the resolution phase may take considerable time as details of the event and especially responsibility and blame are addressed. CERC objectives for this phase include:

- Improve appropriate public response for future similar emergencies through education.
- Honestly examine problems and mishaps, and then reinforce what worked and address what didn't work in the recovery and response efforts.
- Persuade the public to support public policy and resource allocation to the problem.
- Promote the activities and capabilities of the organization. Help reinforce the identity of your organization as capable and responsive.

As the crisis resolves, there is a return to some form of normality. Often, this is a new normal, which includes an increased understanding of risks and new ways to avoid them. While in some cases complete recovery takes years, in the resolution phase, most of the recovery systems are in place. This phase is also characterized by a reduction in public and media interest.

Once the crisis is resolved, you may need to respond to intense media scrutiny about how the event was handled. This may include an opportunity to reinforce public health messages while issues are current. Your organization may need to initiate a public education campaign or make changes to your website. Research shows that a community is responsive to risk avoidance and mitigation education directly after a crisis has occurred.[3,4]

Evaluation Phase

When the crisis is over, it is important to evaluate the performance of the communication plan, document lessons learned, and determine specific actions to improve crisis systems or the crisis plan. A crisis is a very important learning opportunity. Failure to learn the lessons from it increases the chance of a failed response in the future. It is easy for us to focus on the level of tactics and implementation and not consider our overall communication strategy. When the crisis is over:

- Evaluate responses, including communication effectiveness.
- Document and communicate lessons learned—what worked and where were the challenges?
- Determine specific actions to improve crisis communication and crisis response capability.
- Create linkages to pre-crisis activities.

A Seat at the Table for Communication

A critical element in your communication plan is integration with the overall emergency response plans for your organization. A media and public information plan that seems perfect but can't be executed because of resistance or lack of understanding by leadership is a failed plan. It is very important that the communication perspective be represented when key crisis decisions are made. In some situations, communications may be the only tool an organization may have in the early phases of a crisis.

Treating the communication function as a secondary concern, or worse, just as the way to convey decisions, often leads to blunders. Communication needs a permanent seat at the table where key crisis response decisions are made. There are many important reasons why this is true:

- Communication has been recognized as a core emergency response function by the Department of Health and Human Services and the Department of Homeland Security.[5]
- Dramatic cases of failed or ineffective communication have made crises much worse. Examples of this include the following:
  - Hurricane Katrina in 2005[6]
  - The attacks of September 11, 2001[7,8]
- An effective response plan requires communication. Even the best, well-informed, and creative decision will not work if it is not effectively communicated.
- A decision may appear to be effective based on sound science until someone considers how the decision could be perceived by the public and the barriers to effectively communicating the decision.

Helping ensure that communication is a key emergency function involves several activities:

- Make sure that everyone on the communication staff is an ambassador of communication. They should take every opportunity to promote the value of communication efforts to others in the organization. Every department of the organization involved in emergency planning and response should know the communication staff.
- Meet with planners and ask them how they think better communication with the public, partners, and stakeholders would help accomplish their mission.

- Engage leaders with straightforward objectives for communication in a crisis.
- Explain that communications in an emergency is more than public safety radios or television interviews. It involves dynamic two-way exchanges with stakeholders through many channels, including the Web and the media.
- Explain to leadership how the overall response and recovery operation benefits through an investment in public information activities.

An earthquake and a tsunami

In 2011, a 9.0 magnitude earthquake and resulting tsunami in Japan caused tens of thousands of deaths. Communications surrounding the subsequent nuclear power plant incident have been criticized, but communications and preparedness for the earthquake and tsunami have been regarded positively. Many experts and reporters cited Japan's culture of disaster preparedness as preventing much higher causalities than, for example, the estimated 200,000 killed in the 2010 Haiti earthquake and 230,000 who died in the 2004 Indian Ocean tsunami. After the Japanese government was criticized for its slow response to the Kobe earthquake of 1995, Japan spent billions of dollars in strengthening buildings, developing early warning disaster and communication systems, and continually educating and drilling the public on what to do in case of an earthquake or tsunami.

Disaster supplies such as reflector blankets, collapsible water containers, and hand-cranked cell phones are easily found in Japanese convenience and department stores. Neighborhoods are organized with water storage facilities. Parks, shrines, and temples are designated as congregation points in case of disaster. Most schools and offices keep helmets and first-aid kits handy. Disaster training begins early and Disaster Preparation Day is observed every year. This day commemorates those killed in previous quakes and reminds people that another big earthquake is always possible.[9,10]

When the 2011 Japan earthquake and tsunami occurred, the world's most sophisticated early warning system for earthquakes was credited with giving most industrial, energy, and transport operators vital time to shut down. It also alerted residents through the media and mobile networks that a quake was imminent. Television channels immediately switched from normal programming to live coverage of the aftermath. The names of the affected areas flashed on the screen, along with details of the quake's intensity in each area. A map of Japan showing coastal areas subject to tsunami warnings was a constant presence in the corner of the screen.[10] Japan's "massive public education program" could, in the end, have saved the most lives, said Rich Eisner, a retired tsunami preparedness expert. Matthew Francis of URS Corporation and a member of the civil engineering society's tsunami subcommittee also said that education may have been the critical factor. "For a trained population, a matter of 5 or 10 minutes is all you may need to get to high ground," Francis said.[11]

When communication professionals have a seat at the decision-making table, they can provide the following:

- **Customer and audience focus:**
  - Represent the perspective of diverse audiences and stakeholders.
  - Empower local decision making.
  - Provide feedback to responders.
  - Represent fair and responsible resource allocation.
  - Advocate for a return to well-being and normality.
- **Organizational focus:**
  - Coordinate and facilitate response and recovery efforts.
  - Build consensus and consistency of messages.
  - Generate support for crisis management plans and activities.
  - Clarify communication obligation and processes.
  - Avoid misallocation of limited resources.
  - Acquire and present critical information and facts.
  - Reduce and respond to rumors.
- **Process understanding and longer-term thinking:**
  - Represent the competing demands and interests in decisions.
  - Provide considerations of longer-term implications and needs.
  - Avoid statements and decisions that limit future flexibility.
  - Understand the need for multiple partners and perspectives in a response.

The role of communication with emergency operations center (EOC) planners and leaders should be explored and discussed in advance. Events such as Hurricane Katrina[7] and the Red River floods in North Dakota[12] provide powerful examples of how communication can help drive decisions made by policy makers. Participation, education, and credible execution during planning phases can ensure a seat for communication experts at the table during a crisis.

Developing the Plan

Your crisis communication plan should be developed with realistic expectations in mind and take into account the possibility of a worst-case scenario. Crisis researchers often describe fantasy planning assumptions, such as calm seas for several days following an oil spill, or that all members of a community will have access to personal transportation for evacuation.[13] At the same time, worst-case scenarios can sometimes be so overwhelming that planning seems impossible.

Your communication plan should be fully integrated into the overall emergency-response plan for your organization. It should also be included in your local, state, or national response plan. A true public health emergency will involve a number of agencies and departments, and an effective plan will reflect that coordination. An important benefit is the opportunity to mobilize shared resources, such as a unified website used by all agencies that connects to individual websites and telephone hotlines.

Knowing what to include

At a minimum, the following elements should be part of your communication plan:

- Signed endorsement from senior leadership, such as directors and senior managers
- Designated responsibilities for public information teams
- Internal information verification and expedited clearance procedures
- Agreements on information-release authorities (who releases what, when, and how)
- Regional and local media contact lists, including after-hours news desks
- Procedures to coordinate with public health organization response teams, including procedures for developing a JIC
- Designated spokespersons for public health issues and third-party validators in an emergency
- Emergency response team members' after-hours contact numbers
- Contact lists for emergency response information partners:
  - Governor's public affairs officer
  - Local FBI public information (special agent in charge)
  - Local or regional agricultural department or veterinarian public information officers (PIOs)
  - Red Cross, and other nongovernmental organizations
- Agreements and procedures to join the JIC within the EOC, if activated
- Procedures to secure needed resources such as space, equipment, and personnel, to operate the public information and media operation during a public health emergency 24-hours-a-day, 7-days-a-week, if needed

- Information dissemination methods that can be used to communicate to the public, stakeholders, and partners during a crisis include the following:
  - Websites
  - Social media channels, such as Twitter feeds
  - E-mail lists
  - Listservs
  - Broadcast fax
  - Door-to-door leaflets
  - Press releases
- Lists of likely or key stakeholders, ways to reach them, with demographic and background descriptions

Plan Characteristics

Your plan is not a step-by-step or how-to document. It provides a basic, general structure that can be adapted to emergency response situations. It should not be overly long detailed. It should, however, address all of the roles, lines of responsibility, and resources you can reasonably expect to encounter as you provide information to the public, media, and partners during a public health emergency. It should be designed to assist with the immediate decisions, providing you time to assemble facts and plan responses.

More than anything, your crisis communication plan is a resource of information, the "go to" place for "must have" information.

More than anything, your crisis communication plan is a focused, accessible resource that provides must-have information. Many communication professionals keep media contacts in their cell phones or on their laptops. Often, this information is disorganized and incomplete. Part of the planning process involves updating and organizing this information.

The single most important communication responsibility that can be assigned to someone in the organization is the duty to keep the plan current. Update the plan regularly, usually annually. Schedule the review; don't just wait for a certain number of changes to occur. When updates are neglected, the plan is outdated as soon as it is pulled off the shelf.

The single most important communication responsibility that can be assigned to someone in the organization is the duty to keep the plan current.

Longer is not better.

The plan does not have to spell out every required task. It must be the reference that will keep everyone on track and enable staff to complete tasks quickly. Emergencies are chaotic enough without the disorganization of an office that has a poor plan or none at all. A crisis is not the time to build lines of authority and relationships with response partners. Too often, the initial confusion and conflicting messages that can cripple an organization's credibility come from a lack of clear roles and responsibilities, and poorly defined lines of authority.

Don't discount the other important benefits of planning, they may be as important as the actual plan:

- Collecting information
- Working through decisions
- Building relationships and teams
- Assessing risks
- Considering various scenarios and contingencies
- Seeking consensus

Use a committee to write the plan. Choose this committee carefully so that all topics covered in the plan are represented by people who are knowledgeable on those topics. Meet regularly throughout the planning process and after the plan is complete. As new risks emerge or other organizations experience crises, have the team meet to discuss the implications for the plan.

When leadership changes, as this often occurs during a response, bring them into the planning process by asking them to review the plan and make suggestions. Some researchers point out that crisis planning is an ongoing process[14,15] that is never actually completed because risks, resources, and people are always changing.

Reality Check

- Don't be surprised if agreements made in the sunshine of business-as-usual are suddenly changed during the bleak realities of a crisis.
- Keep the plan simple and remain flexible.
- Get done what's in your control.
- Try to move your important public health messages forward in a way that reaches the public and partners as quickly and accurately as possible.

Nine Steps for Success

Planning ahead does not eliminate risk. Its purpose is to make the most efficient use of time and resources. The value of planning should not be judged by the accuracy of its predictions, but by whether it helps optimize results in a changing environment.[16]

The following nine steps will be helpful during your planning phase:

1. Obtain signed endorsements from senior leadership: Senior leadership, such as directors and senior managers, must support the need for the crisis-planning process. Make certain they know the following:

- The process has been thought through
- The response planning is coordinated
- They have an important role in the plan's ownership

A couple of paragraphs endorsing the plan are sufficient. Senior management should sign and date the plan. They should sign and date it again, when it is updated. A sample introduction for a CDC crisis communication plan follows:

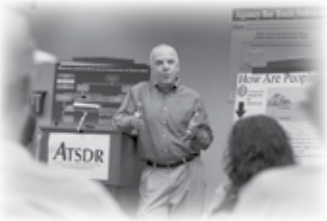
"CDC comes together during a crisis to help protect the health and safety of Americans. We also need to calm public fears during a crisis by communicating credible information and by promoting appropriate health actions.

Experts agree that most crises take an organization by surprise.[17,18] Appropriate and timely communication allows CDC to work effectively with partners, engender public trust in its scientifically based health recommendations, and perform its public health mission.

Crisis communication planning helps CDC deal effectively with those unexpected crises or emergencies. This framework of action incorporates the ethical, professional, and guiding principles needed by CDC during a crisis to communicate to the media and public with confidence and credibility. We cannot predict or always avoid future crises, but we can do our part to be prepared."

2. Designate responsibilities for the media, public, social media, and partner information teams: Decide who is in charge of the release of information to the public, including the media and partners. This information keeps partners and the public updated on the process, response outcomes, and any public health recommendations. It is also the information needed to respond to the public and partners based on their feedback. Whether individuals or teams of people attend to these tasks, it's important that they understand their responsibilities in advance.

If your organization is incapable of meeting the likely media, social media, partner, and public information needs during a public health emergency internally, ensure that the plan identifies where



this response support will reside. This may include a role as part of a city's or state's EOC. It is your responsibility to ensure that appropriate public health information is reaching the public and partners through the various available channels. Given the diversity of audiences and range of channels, this is critical.

Staff responsibilities can be defined through the National Incident Management System (NIMS).[19] It provides a structure for the coordinated response, including four core functions:

- Information gathering
- Information dissemination
- Operations support
- Liaisons

You should include NIMS staff designations in your crisis communication plan. This will provide a clear means of determining staff responsibilities. Because NIMS is widely used, partner organizations and the media will recognize and understand the staff roles.

For further information on using NIMS as part of your communication plan, please see the NIMS subsection after this list for a discussion of communication activities in NIMS.

3. Information verification and clearance procedures: One core function of crisis communication is information clearance. Does your plan specify who absolutely must review a new piece of information before it's released from the organization or before it's incorporated into an overall release from a higher authority? Crisis communication involves a fundamental tension between two elements:

- The need to ensure that information is confirmed to be accurate through a clearance process
- The need to ensure that information is communicated quickly

Important clearance-related guidelines include the following:

- Release accurate information quickly. If you don't, your organization may publicly fall flat on its face. Use the following approaches:
  - Prioritize information as "need to know" versus "want to know" and get moving on what must be answered first.
  - If an answer to a "need to know" question has not yet been formulated, give the media and the public information about your process or system for getting that answer.

Release accurate information quickly. If you don't, your organization may publicly fall flat on its face.

- Have three people clear a document before it's released from the organization:
  - The communication director responsible for your organization's reputation
  - The policy director who is responsible for ensuring that the information does not counter organization policy
  - A subject matter expert (SME) who is both fast and knowledgeable
- Keep the legal department out of the clearance process unless the subject has specific legal implications.
- If appropriate, you may have others review and comment on the document, but not delay its release.
- Follow your organization's protocol to receive clearance from higher authorities.
- Ensure that response partners know what new information you're planning to release as a courtesy to those partners.
- Have the mechanism in place to give a courtesy check to those response agencies with a stake in your communication.
- Focus on content and information rather than form. Limit excessive tinkering with phrases. While the form of a message matters, form is not the function of the clearance process.
- Clear all information simultaneously and in person, whenever possible. Unless it is possible to get the primary clearance authorities in one room with the door closed and no phones, do the following:
  - Make three copies.
  - Take one copy to each person. Wait while he or she reviews and approves the document.
  - Point out any part of the document that needs careful consideration.
  - Ask if he or she would be comfortable seeing this as a news headline.
  - Reinforce that the information you've compiled and are attempting to get cleared answers important questions from the public, the media, and partners. It may also answer questions in response to troubling trends from your own analysis of where the subject might be headed.

Clear all information simultaneously and in person, whenever possible.

Work with personnel in your organization to keep the clearance process seamless:

- It's difficult to delegate clearance; be prepared to do it yourself.
- Be realistic about the time clearance will take, and build it into your schedule.

- The communication director will be busy and may delegate a surrogate to handle his or her part of the clearance chain. Accept this delegation.
- Educate everyone involved in the development and release of information about clearance steps. Set an expectation for time from development to release.
- Help responsible authorities understand that it is worse to release nothing than to release information that is not yet complete.
- Get "need to know" information out the door fast.
- Get "want to know" information released as soon as possible without straining relationships with authorities who must clear new information.

■ Have as much information on a topic precleared as possible. This is a key aspect of emergency communication:

- Make sure that predeveloped information is sensitive to the conditions of the current crisis before it is released.
- Choose words carefully from the start. People are far more sensitive in crises.

One key aspect of emergency communication is to have as much information on a topic precleared as possible.

4. Establish agreements on release authorities (who releases what, when, and how): One ongoing challenge is coordination and determination of who is responsible for what. Inadequate understanding can lead to slow release of information. When drafting agreements, consider the following:

■ Use this aspect of preplanning to reduce damaging conflicts.

■ Place formal agreements on release authority in writing, but expect changes.

■ Know that information is usually not exclusively owned by any one organization or agency. Typically, many levels of a response command could release information. Learn to work together on the release of information. Ask yourself these questions:

- "Does it really matter who releases this information?"
- "Isn't getting information out quickly and accurately what really matters?"

■ Once it's released, it's possible to incorporate the information into other messages for other public groups, partners, and audiences.

5. Have all media contact lists, including after-hour numbers, in place: At the heart of any crisis communication plan are contact lists. These lists include key leaders and representatives of stakeholder groups, partners, and, especially, members of the media. While many crisis plans maintain this information in database form on thumb drives or secure servers, it is also helpful to have access to hard copies as backup.

Try to have contacts for all major media outlets. These contact lists are the most vital part of the plan. When you create these lists, do the following:

- Include cell and landline phone numbers, e-mail addresses, and fax numbers.
- Include information about how to contact news directors and editors after hours; that's often when you will need them.
- Verify e-mail addresses and fax numbers periodically because they change regularly. This verification can be part of an annual tabletop exercise.

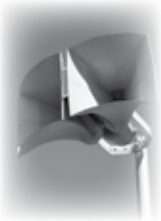
6. Plan procedures to coordinate with public health response teams: In a crisis, no communications team can function in isolation. The communication function should be part of the formal decision system. It should also be integrated into the larger crisis response team. This usually means having a formal, recognized role. Communication and coordination can't be an afterthought.

When you create these procedures, do the following:

- Include an organizational chart in your plan so you can quickly find people who are key resources.
- If you don't operate out of the EOC, find out who is in the EOC and make sure they know to contact you immediately.
- Let others in your organization know that, in some cases, you may be the first person to hear about a public health emergency, often from the media.
- Make sure that telephone numbers and after-hours contact information is included in the first emergency notification list.

Similar procedures should be in place for other response organizations or partners:

- Share contact information for your organization with partner organizations. They should be included as part of their communication plans. Swap names, e-mail addresses, phone numbers, after-hours numbers, and expected roles and responsibilities.
- Obtain public health organization emergency response team after-hours contact numbers.



7. Designate spokespersons for public health issues and third-party validators: The crisis communication plan should specify public health emergency spokespersons and designated backup personnel. When you make a list of spokespersons, do the following:

- Do not include people solely based on their position in the organization. Rather, people should be selected according to their ability and availability.
- Prepare and elevate trained speakers to a higher authority, if they are needed.
- Identify all off-hour contacts, as emergencies often happen during nonworking hours.
- Train and refresh speakers frequently, perhaps as part of an annual tabletop exercise or more often. In addition, even if a key spokesperson, such as an elected official, will be speaking at the daily press conference, there are many other opportunities for others to communicate with the media at work or at public meetings.
- Include lists of likely speakers who have been trained.
- Line up experts outside the organization who can perform some of these duties and keep the public informed. Media and civic groups will appreciate the offer of alternative spokespersons.

8. Have agreements and procedures to join the EOC's JIC, if activated: The principle behind EOCs is that one centralized location for decisions facilitates coordination.[18] Multiple EOCs operating within a local region will defeat that purpose. During the planning stage, it is important to connect with your EOC. Make sure your EOC operations chief's plan includes a role for your organization and its communication team. Usually, but not always, the EOC operations chief's plan will specify a JIC to coordinate communication functions and help integrate information systems. When you make these agreements, consider the following:

- Agree ahead of time on personnel staffing for the JIC and make this part of your plan.
- Establish the role key communication personnel will have in the JIC.
- Know that a considerable amount of work must be accomplished outside of the JIC.
- Remember that with smaller agencies you may not be able to operate 24/7 during a large-scale or long-term crisis. A combined EOC/JIC may be a critical resource.

A JIC is usually made up of PIOs of the responding agencies to coordinate and disseminate information to the public, typically via the media. They will also work to control any rumors or misinformation. The JIC typically uses the traditional public relations methods. JIC personnel do the following:

- Distribute press releases
- Post information on websites
- Hold press conferences transmitting information to the public

Increasingly, JICs incorporate social media into their communication practice by doing the following:

- Establishing or updating their own social media pages and feeds to respond to questions and comments
- Monitoring social media sites for rumors or misinformation that can be addressed

9. Develop procedures to secure needed resources: Space, equipment, and personnel to operate 24/7 during a crisis will be needed. At the local level, your JIC can help address resource needs. However, some public health emergencies that can tax an organization may not be large enough to trigger the operation of an EOC and a JIC.

Obtain agreements with other local or nongovernmental organizations for support if a JIC is not activated. During a crisis, supplies, personnel, equipment, and space are still needed. Based on a pre-crisis assessment, do the following:

- Identify needs and procurement mechanisms.
- Connect with the logistics part of the organization.
- Learn the procedures for acquiring resources and put that information into your plan.
- Tell emergency response commanders what your communication team needs before there is an emergency; don't wait until after one starts.
- Make a checklist of resources that should be included in the plan. An example can also be found at the end of this chapter. Office resources may include the following:
  - Space
  - Personnel
  - Equipment (computers, printers, scanners, telephones and lines, cell phones, and fax machines)
  - Basic office supplies, including pens and notebooks
  - Additional supplies such as cell phone chargers, extra batteries, and nonperishable food items like bottled water

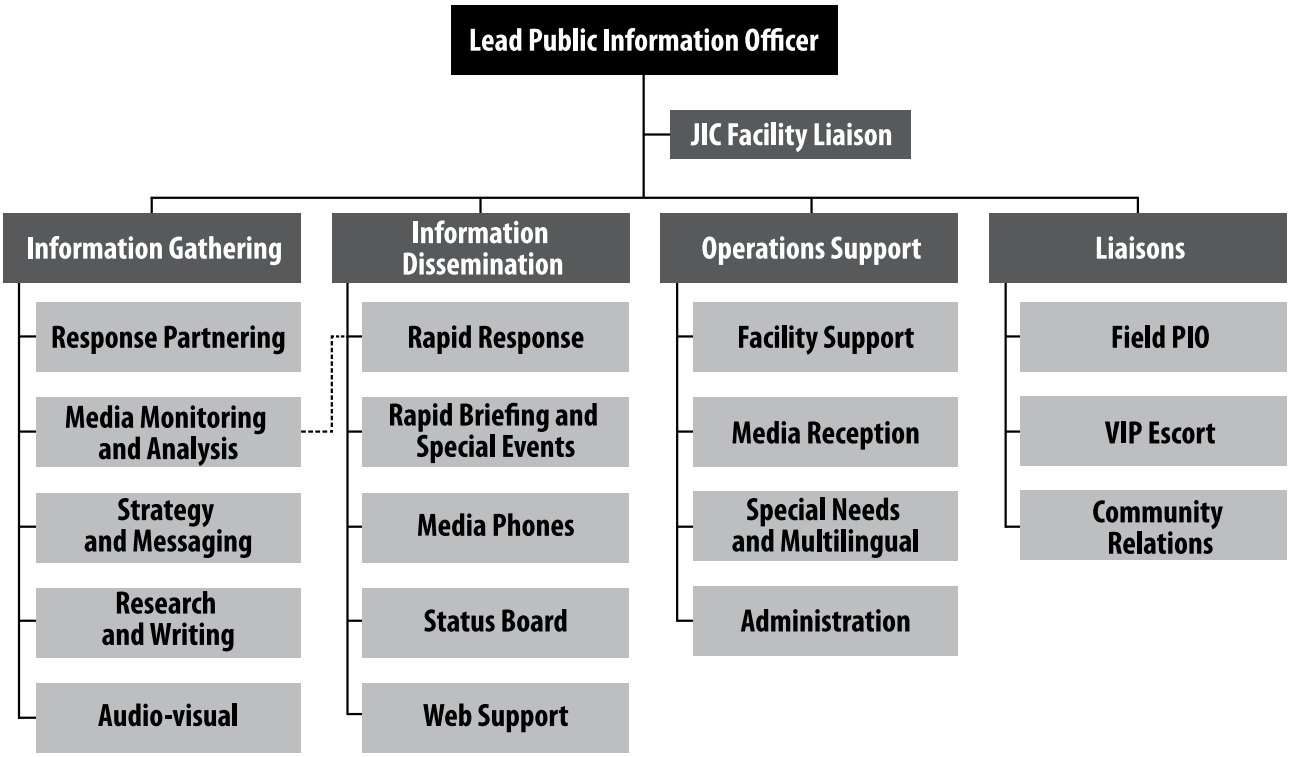
NIMS

In Chapter 1, the National Incident Management System (NIMS) was introduced as a set of federal procedures used by government agencies to organize crisis response. Under the nine steps for success in the Developing the Plan section of this chapter, it was explained that NIMS provides a logical means of designating staff responsibilities that will be understood by partner organizations and the media.

The public information systems described in NIMS were designed to effectively manage the two-way flow of public information in a crisis, regardless of the size and complexity of the situation or the number of agencies involved in the response.

Positions that PIOs and their staff may have to fill under NIMS are located under the JIC. Review the JIC structure and functions for a large-scale incident represented in Table 4–1. One person may do many functions, or one function may be staffed by many people, depending on the scope of the incident.

Table 4–1. NIMS Sample JIC for a Large Incident[20]



The four core functions of NIMS[19,20] should be part of the overall crisis communication plan:

1. Information gathering
2. Information dissemination
3. Operations support
4. Liaisons

While these are described as separate components, they must be closely integrated. With smaller incidents, an individual can serve in more than one of these communication functions.

Information gathering: This is critical not only to promote situational awareness but also to receive feedback on messages and how they are received and interpreted. Media monitoring and analysis, including social media, is a central function because the media remains a source of timely information during any crisis. Close coordination with other response agencies and partners, and their PIOs, to gather the most current information is also critical.

Information dissemination: This includes using a variety of channels to reach multiple audiences. These activities include general media relations, working with designated spokespersons, organizing news conferences, and providing briefings and updates. Inquiries and questions from the general public must also be addressed and should be documented through contact logs. In addition, officials and other key leaders must be briefed. These information dissemination activities should extend to Web support and social media.

Operation support: This involves a variety of communication activities, including addressing special needs and multilingual audiences through translation and other services. Facilities' support activities involve ensuring sufficient communications capacity to support operations.

Liaisons: They can provide two-way communication and coordination with key stakeholders and partners. Close coordination is necessary to achieve an effective response and create consistent messages.

The NIMS structure for the public information function is designed to be scalable and flexible. Smaller, regional incidents of shorter durations may require fewer resources and may not involve all activities. The general communication functions described by NIMS should be included in crisis plans. Some of the other general responsibilities that must be planned for as part of the emergency response include the following:

- **Official responsible for command and control:**
  - Activates the plan based on careful assessment of the situation and the expected demands for information by the media, partners, and the public

- Calls the crisis communication team together
- Directs the work related to the release of information to the media, public, and partners
- Coordinates with horizontal communication partners, as outlined in the plan, to ensure that messages are consistent and within the scope of the organization's responsibility
- Provides updates to the organization's director, EOC command, and other headquarters, as determined in the plan
- Advises the director and chain of command regarding information to be released, based on the organization's role in the response
- Ensures that CERC principles are employed in all contacts with media, public, and partner information release efforts
- Knows incident-specific policy, science, and situation
- Reviews and approves materials for release to the media, the public, and partners
- Obtains required clearance of materials for release to the media on policy or sensitive topic-related information
- Determines the operational hours and days, and reassesses these throughout the emergency response
- Ensures that resources are available, including personnel, technical resources, and mechanical supplies

■ **Official who directly interacts with the media:**

- Assesses media needs and organizes mechanisms, such as daily briefings in person, social media and website updates, and RSS feeds, to fulfill those needs during the crisis
- Triages the response to media requests and inquiries
- Ensures that media inquiries are addressed as appropriate
- Supports and briefs spokespersons
- Oversees the maintenance of media contact lists and contact logs
- Produces and distributes media advisories and press releases
- Produces and distributes materials such as fact sheets, Facebook and Twitter feeds, widgets, podcasts, and B-roll video

- Oversees media-monitoring systems and reports, including social media:
  - » Analyzing environment and trends to determine needed messages
  - » Determining what misinformation needs to be corrected
  - » Identifying concerns, interests, and needs arising from the crisis and the response
- Ensures that risk communication principles designed to build trust and credibility are incorporated into all public messages delivered through the media
- Acts as a member of the JIC or field site team for media relations
- Serves as a liaison between organizations through the JIC

■ **Official who directs public information activities:**

- Manages the mechanisms for responding to public requests for information via social media, telephone, in writing, or by e-mail
- Oversees public information monitoring systems and reports:
  - » Analyzing environment and trends to determine needed messages
  - » Determining what misinformation needs to be corrected
  - » Identifying concerns, interests, and needs arising from the crisis and the response
- Oversees and activates social media, telephone, and public e-mail correspondence response systems
- Organizes and manages the emergency response websites, Web pages, and social media
- Establishes and maintains links to other emergency response websites

■ **Official who directs partner and stakeholder information activities:**

- Establishes communication and coordination protocols based on prearranged agreements with identified partners and stakeholders
- Arranges regular partner briefings and updates, and establishes liaisons
- Solicits feedback and responds to partner information requests and inquiries
- Oversees partner and stakeholder monitoring systems and reports:
  - » Analyzing environment and trends to determine communication strategy
  - » Determining what misinformation needs to be corrected
  - » Identifying concerns, interests, and needs arising from the crisis and the response

- Helps organize and facilitate official meetings and briefings to provide information and receive input from partners or stakeholders
- Oversees development lists and contact logs of key decision makers such as officials, legislators, and special interest groups
- Responds to special interest groups, and official requests and inquiries

■ **Official who develops content and material for public health emergencies:**

- Develops and establishes mechanisms and protocols to rapidly receive information from the EOC
- Translates EOC situation reports and meeting notes into information appropriate for public and partner needs
- Works with subject matter experts (SMEs) to create situation-specific fact sheets, Q&A documents, and updates
- Compiles information on possible public health emergency topics for release when needed
- Manages the development and testing of messages and materials for cultural and language requirements of special populations
- Coordinates with other communication team members regarding content and message needs
- Adapts messages based on analyses from media, social media, public, and partner monitoring systems and feedback

These systems of communication should also be linked and coordinated so that messages are consistent. For example, CDC evolved a system during the anthrax event that is still used: a press conference that is recorded is transcribed quickly. Both the text and the recording are put on the Web and archived. All groups have simultaneous access to the written record, thus helping to ensure greater accuracy and consistency. Internal staff uses these transcripts to help prepare other materials, such as FAQs.

The Importance of Establishing an Emergency Operations Center

During an emergency, it is imperative that organizations not only manage the crisis but also maintain normal, daily operations. By establishing an EOC in 2001, the individuals who were investigating and managing the anthrax case in Palm Beach, Florida, had the resources that were necessary for maintaining a unified and centralized approach to managing the crisis:

- Broadcast studio
- Computers
- Workstations
- Telephones
- Added equipment (for effectively investigating the situation and reporting information to the media and the public)

Their EOC was instrumental in allowing those involved in the crisis to focus on the situation in an environment that was dedicated to crisis management and resolution.

During a CDC emergency response, the EOC brings together scientists, program experts, and policy experts from across CDC to efficiently exchange information and connect with public health emergency response partners.

For multistate emergencies, or emergencies that affect many people, CDC provides additional public health resources and coordinates response efforts across multiple jurisdictions, both domestically and internationally. The improved 24,000-ft^2 EOC facility became operational in 2006. When fully staffed, it can accommodate up to 230 personnel per shift, for one to three shifts per day, to handle situations ranging from local interests to worldwide events.

CDC's Division of Emergency Operations (DEO) manages the EOC. To support state and local efforts during an emergency response, EOC staff coordinates deployment of CDC staff and equipment that CDC responders may need.

Planning for JIC Requirements

JICs are a crucial part of any EOC. They will need space, personnel, agreements, supplies, and equipment. Space will be needed not only for staff, but also for the JIC and for any press briefings. Personnel are key to an effective response. In many cases, there will simply not be enough trained communication personnel available in your agency. Agreements with other agencies to loan personnel can build surge capacity for a response. Supplies and equipment are necessary for any response, but you don't want to be hunting for them after the response has started. When you plan for using certain equipment, you will need to bear in mind certain technology considerations. Specific details on these items are listed:

- **Space:**
  - Find space to operate communication teams (and the JIC) outside of the EOC.
  - Locate space for bringing media onsite when needed. It should be separate from the EOC and the JIC.
  - Find quiet space to train and brief spokespersons.
  - You will need conference space for team meetings.
  - An office should be dedicated for equipment that is exclusively used by communication personnel. You cannot stand in line for copier use when facing media deadlines.
  - You will need space to take breaks when necessary, whether for eating, sensory deprivation, rest, or even a nap.
  - Identify offsite space your team can use in case the event damages your original space.
- **Personnel:**
  - Include trained personnel to either operate a 24/7 public and media information center or to support a JIC as part of a local EOC.
  - Identify people qualified to take phone inquiries and respond to questions and comments on your social media sites like Facebook and Twitter. Consider staff from throughout the health department as well as in partner organizations. Some agencies may contract out these services but a liaison is still required.
  - In accordance with the policies and procedures of local jurisdictions, consider recruiting volunteers from the medical community, especially infectious disease specialists, to help with responding to other public health professionals in the area.
  - An abundance of trained staff will save you from your worst errors by reducing fatigue and catching mistakes.

- Information technology and social media staff must be onsite and ready to handle technological difficulties, including high volume or overloads of communication systems like phone systems, internal computer servers, and Internet servers.
- To prevent burnout, personnel need scheduled breaks and other qualified people need to be available as replacements if the crisis response is prolonged.

■ **Contracts and memoranda of agreement:**

- Consider a contract with a comprehensive newswire service that will disseminate your information across a wide variety of platforms, such as print and broadcast news, the Internet, and social media sites. Think about using varied tools such as press releases, videos, images, e-mail, and social media tagging.
- Look into contracts with writers or public relations personnel who can augment your staff, especially with social media writing and monitoring expertise, if your organization doesn't have that type of staff.
- Think about contracting for administrative support and technical support.
- Consider using a contractor that can supply phone menus directing the caller to the type of interaction desired. The phone menu may offer the following options:
  - » General information about the threat
  - » Tip line listing particular actions people can take to protect themselves
  - » Reassurance and counseling
  - » Referral information for media requests for data or interviews
  - » Health-care worker referrals
  - » Referral information for epidemiologists or others needing to report cases
  - » Laboratory and treatment protocols
  - » Managers looking for policy statements for employees

■ **Supplies:** Keep a store of typical office supplies "for emergency only" to ensure they are there when you need them:

- Copier toner (what you start with is never enough)
- Printer ink
- Paper, notepads, and notebooks
- Pens, pencils, markers, highlighters, and erasable markers
- Mail supplies and supplies for express delivery services such as DHL, FedEx, UPS, and the U.S. Postal Service

- Sticky notes
- Standard press-kit folders
- Flash drives (thumb drives) and portable hard drives
- Color-coded everything (copy paper, folders, inks, etc.)
- Baskets to contain items that you're not ready to throw away
- Organizers to support your clearance and release system
- Expandable folders, with alphabet or days of the month
- Staplers (lots of them)
- Paper hole punch
- Three-ring binders
- Organization's press kit or its logo on a sticker
- Organization's letterhead
- Paper clips (all sizes)
- Tape

- **Equipment:** Equipment to support communication to media and partners should be obtained before the crisis. Contracting during a crisis will create what will likely be damaging delays. Determine what you may need to do to provide this equipment if a crisis persists:

  - Computers (desktop or laptop) loaded with secure Internet access, software programs, and documents needed for crisis communication and information sharing (e-mail lists, crisis communication plan, collaboration software, etc.)
  - Dedicated computer servers with bandwidth to handle increased Internet traffic
  - Landline phones with dedicated lines and 800MHz radios in case of a power outage or cell phone network overload
  - Cell phone chargers and plenty of extra batteries
  - Fax machines with numbers preprogrammed for broadcasting fax releases to media outlets and partners
  - Computer printers, including at least one color printer
  - A color copier machine and backup
  - Extension cords
  - Visible calendars, flow charts, bulletin boards, easels, and white boards
  - Designated personal message board
  - Press conference audio-visual equipment, such as portable microphones, a sound system, a projector and screen, and recording devices
  - A podium or lectern and microphone
  - TVs with cable or satellite hookup

- A DVD player
- A paper shredder
- An alternative power supply, such as a generator, for the EOC and the JIC
- Portable cots

■ **Technology considerations:** Different channels and mechanisms of communication are appropriate at different times and for different audiences. The mechanisms most appropriate to communicate with the media, the public, and partners are listed:

- Phone, including hotlines and cell phone numbers of direct contacts
- Fax, including broadcast preprogrammed fax
- E-mail, including the listservs or distribution lists used
- Broadcast messaging systems, such as text messages, reverse 9-1-1, and e-mail
- Web technologies such as social media (Facebook, Google+), blogs (yours, other health-related blogs, WordPress), microblogs (Twitter, Tumblr), and photo and video (for YouTube, Flickr, Skype)
- Agency and partner websites
- A partnership with other emergency response groups to use their e-mail and distribution lists
- Mail and shipping services, such as the U.S. Postal Service, FedEx, and UPS
- Face-to-face meetings using Web resources, including town hall meetings or press briefings
- Partner association membership lists
- Contracted press release wires
- Media channels, such as radio, print, Web, and TV

As a general rule, it is appropriate to use multiple channels of communication to reach the broadest audience possible while ensuring that the messages are consistent.

Applying the Plan During the First 24 to 48 Hours

Be First, Be Right, Be Credible

The CERC values to "be first, be right, be credible" were presented in Chapter 1. These are critical during the highly chaotic, uncertain, and threatening first 24 to 48 hours of an emergency. Planning for the initial phase is vital because this phase can influence the subsequent development of the crisis. The initial phase will be triggered either by an organization's identification of an unfolding event as a potential crisis or by intense media inquiry that is expected to be sustained for an indefinite amount of time. This phase is marked by the need for a quick assessment of the following:

- Potential response level required
- Facts to be assembled
- Actions to secure the necessary resources needed to meet the expected buildup of media and public information demand

Crisis communication planning should be designed to help manage the first 24–48 hours of an emergency and its associated intense media and public scrutiny.

Critical tasks during the initial phase of the crisis include:

- Verification
- Notification and coordination
- Assessment
- Initial media response
- Assignments
- Resource allocation

Tell the Media and the Public What You Know

Quickly update the media and the public on the status of research, facts, and investigations when an event arises. When Mount St. Helens erupted, many local residents may have questioned the dangers of the volcanic ash and dust cloud.[21,22] Although U.S. Geological Survey scientists requested several weeks to have a panel review and evaluate the possible dangers, people needed answers quickly.

In a disaster situation, you have to provide people with the information you currently have and know to be true, and give them regular updates as you obtain additional information.

Verification

Early information about a possible crisis event, either from the media or from health-care professionals, may be unintentionally slanted. Evaluate the information, attempt to verify the magnitude of the event, and seek additional information to put the event into perspective regarding public and media interest. Helpful questions might include the following:

- Where did the information originate?
- Is the source credible?
- From which of the following did the information come?
  - Formal channels of communication, such as a CDC message or an Epi-Aid report
  - Informal channels of communication, such as a call from a county health official
  - Rumor, such as an e-mail chain, or a social media post
- Is the characterization of the event plausible and consistent with other events of this type?
- Is the information consistent with other sources that are reporting on the event?

Notification and Coordination

Once you have verified the event, notify managers in your organization immediately. The more quickly you notify the chain of command, the more rapidly you will be able to coordinate with partner organizations. This translates into more efficient responses with less difficulties. The communication plan should designate all of the people who must be notified.

Make sure the notification message only contains information that has been verified. Rumors are very destructive. Describe the event from a public or media perspective. If you anticipate, based on your risk analysis, that the event will produce intense media and public interest, share that opinion with those being notified. If the event has potential to grow, share that view as well.

Coordination means notifying people who may not be in the formal chain of command for emergency response but who may be partners in the response. You may be coordinating with members of your own organization or with partners outside your organization. For example, the director of health should be notified if the media alerted you to an emergency. Coordinating the emergency response with the communication representative of the local American Red Cross chapter may also be important.

Notification is formal and comes first. Coordination is generally less formal and is based on mutual respect and understanding of the organization's role in the community. Communication plans should identify those core people for notification and coordination who would work with your office during

any public health emergency. The plan should also identify those people or organizations that should be notified or with whom activities should be coordinated, according to the type of emergency that has occurred. For example, if the emergency involved animals, coordination with veterinary health representatives and the local humane society is in order.

Initial Media Response: Is the Media Beating on Your Door?

Assembling the facts is a priority for your team. One of the best ways to satisfy the media's (and, in some cases, the public's) need for information is to control the flow of information while establishing your organization as a credible information source:

- Do not give in to pressure to confirm or release information before it is confirmed by experts or emergency operation centers.
- Take the lead if you have the lead. If another organization is rightfully the lead, defer to them, continue to coordinate, and be as helpful as possible.
- Release some information initially, but be honest that your organization is still gathering information. The following are suggested responses for the media that give the time necessary to collect the facts:
  - "We've just learned about the situation and are trying to get more complete information right now."
  - "All of our efforts are directed at bringing the situation under control. I'm not going to speculate about the cause of the incident at this time."
  - "I'm not the authority on this subject. Let me have [name of authority] call you right back."
  - "We're preparing a statement on that now. Can I send it in about two hours?"

> *"One of the challenges in public health, when talking to the media, is talking to the media before you have all the information… During a crisis, during a new outbreak where it's all unknown, you're not going to have all the information you'd like to have, but you still have to talk."*
>
> *Richard Besser, M.D., Former Acting Director, Centers for Disease Control and Prevention*

For more information on notification, please review Checklist 4–2, "Notification Schedule," at the end of this chapter.

Get Your Information Out Early

It is important, particularly with regard to disasters, to give the public some idea of the kinds of plans and procedures your organization is formulating to manage the crisis.

When documented cases of anthrax from spores being sent through the U.S. Mail were rampant, laboratories in Denver, Colorado, were unable to rule out the possibility of anthrax exposure in the case of a postal worker who was being treated for a suspicious respiratory illness. In turn, postal workers in Ft. Collins, who were not identified as being in direct threat of anthrax exposure, showed up at a clinic to receive antibiotics that were unnecessary.

In another situation in 2000, before state and local officials had made a formal decision about how the public should respond to a hurricane, many people in Florida and Georgia self-evacuated based on their analysis of what they saw on The Weather Channel.[23]

Evaluate Required Response

During the initial phase, do a quick initial evaluation of the situation to help you plan the level of public information and media response that will be required. The following questions should be considered:

- Is the event acute? What if the event has already occurred and your organization is faced with explaining the event and the aftermath? For example, this could happen following a chemical release or a mistake in a Level 4 lab.
- Is the event evolving? The event is uncertain and may become more or less serious (such as identifying a novel influenza virus).
- Is the event a legitimate public health emergency requiring swift and widespread public education to prevent further morbidity and mortality? One example would be a multistate listeriosis outbreak.
- Is this the first, worst, biggest, etc.?
- Is the interest generated because of the event's novelty or is it a legitimate public health concern?
- Is the event occurring in a metropolitan area with many media outlets versus a sparsely populated area with fewer media outlets?
- Is the event regional, national, or international?
- Does the event involve children or special populations?
- Is the human outcome of the disease uncertain, such as long-term health effects?

- Is there a product, service, or industry potentially involved?
- Are there sensitive international trade or political relations involved?
- Is there, or will there be, an ongoing criminal investigation?

The following is a list of assessment questions that will help with the next critical task, assignments:

- Is this event within the scope of responsibility for your organization? Are you, or should you be, involved?
- Is the state or city health department at the epicenter of the event well-equipped and trained to manage a media response of this magnitude?
- Is the situation being managed? If so, how and by whom? What is the science behind the program?

Next Media Response Step

If, based on this evaluation, the public health emergency is wholly or partly within the jurisdiction of your agency, then release as many of the facts as possible to the media and the public. Credibility often relates to the following:

- The speed at which an agency appears to be involved in the recovery and response
- The accuracy of the information you provide
- Your level of openness, empathy, and determination to see it through

Present these elements in the first official statement or appearance with the media. It may take some time to develop a solution to the crisis. You will gain valuable time for your organization by sharing with the media the process your organization is developing to produce a reasonable and caring operation to resolve the crisis. In addition, you build goodwill. Take the opportunity to communicate early, but be careful not to speculate. Stick to the facts and to a commitment to a process to release more information as soon as possible.

As the crisis evolves, and before facing the media again, prepare answers to the following frequently asked questions about safety.

Individuals want your message to answer the following questions:

- Am I safe? How can I protect my family?
- What have you found out that my family and I should know about?
- Who or what caused this problem?
- Can you fix it? When?

The media and communities want your message to answer the following questions:

- Who is in charge?
- How are those who got hurt getting help?
- Is this thing being contained?
- What can we expect?
- What should we do?
- Why did this happen? (Don't speculate. Repeat the facts of the event, describe the data collection effort, and describe treatment from fact sheets.)
- Did you know ahead of time that this might happen? Why wasn't this kept from happening (again)?
- What else can go wrong?
- When did you begin working on this (were notified of this, determined this)?
- What do these data (information, results) mean?
- What bad things aren't you telling us? (Don't forget the good.)

Assignments

Important areas of responsibility in a crisis communication operation include the following:

- Hands-on response to the media (messenger)
- The person or team who is in charge of managing the crisis communication operations (messenger)
- Collection of accurate and timely public health information translated into lay language valid to the media, the public, stakeholders, and partners (message)
- Environmental scanning and analysis to identify rumors, myths, errors, and trends (message)
- Rapid execution of support tasks that keep the information flowing (delivery method)
- Continued operation of tasks not related to the crisis event

Applying the Crisis Plan Throughout the Response

The first few hours of any event are usually very chaotic. This is a time of very high uncertainty where quick response can be critical. It is also a time where community-based organizations may be on their own. In many ways, a crisis communication plan is designed to preset these initial decisions so the organization can respond very quickly. While every event is unique, the following steps are largely universal.

Step 1: Verify the Situation

Situational awareness is the first step in an informed response. Information will be scarce, and many established channels of communication may be disrupted. Consider the following points while verifying the situation:

- Get the facts, and (to the degree possible) verify them with secondary sources.
- Find out where information originated and determine credibility. Was this a formal source, such as a Health Alert Network message; a communication from another agency; a CDC Epi-Aid; or from an informal channel, such as a nongovernmental partner?
- Question possible rumors or hoaxes, which can be found through traditional and social media.
- Determine whether the information is consistent with other reports.
- Determine whether the characterization of the event is plausible.
- Clarify information and understanding through SMEs.
- Assess the scope and scale of the event by answering questions such as, “how much?” “how many?” and “how big an area?”
- Begin to identify staffing and resource needs for the expected media and public interest.
- Consider ways to access additional information.
- Decide who should be notified of this potential crisis.

Step 2: Conduct Notifications

It is essential to carefully identify to following:

- Who should you include in your chain of command?
- Up to what level?
- Where within the scope of organization?

Some notifications may be mandatory while others may be necessary for a coordinated and effective response. Record who you notified, when, how, and if they were reached.

As noted in Table 4–2, notification procedures vary by state and local jurisdictions. Know what procedures govern this particular area of responsibility.

Table 4–2 General Guidelines for Notification

Local agencies	State agencies	Federal agencies
• Law enforcement • Public health organization • Emergency Medical Services • Hospitals • Fire departments • Medical examiner • Local Department of Homeland Security (DHS)—Emergency Management Agency • Local general service organizations*	• State public health • State • DHS—Emergency Management Agency • Law enforcement • Emergency Medical Services • State fire service • National guard	• DHS • FEMA • FBI • CDC • U.S. Public Health Service • Department of Defense • U.S. Department of Agriculture (USDA)

* Varies depending on crisis, but could include schools, faith-based organizations, nonprofit disaster relief agencies (e.g., American Red Cross, Salvation Army), and public works (e.g., water, power, sewer).

Step 3: Conduct Crisis Assessment (Activate Crisis Plan)

Throughout the event, it is important to continue to gather information and update situational awareness. Try to determine the severity of the situation, what information should be communicated, the target audience, and the potential harm on communication operations, resources, and staffing.

These updates require ongoing research through media monitoring and through working with other response agencies, public health partners, and the public. The following questions will help focus these efforts:

- What organization, office, or individual is in charge of managing the crisis? Ensure that direct and frequent contact with the office in charge is possible.
- What happened and what responses are occurring? Continue to gather and check the facts.
- What is your organization doing to address this crisis?
- What other agencies are collecting information and how is that being compiled?

- What are other agencies and organizations doing in the response?
- Who is being affected by this crisis? What are their perceptions? What do they want and need to know? How can they be reached?
- What should the public be doing?
- What is being reported on the Web and in the media? Activate formal and informal monitoring systems.
- What is being said about the event? Is the information accurate? Determine the consistency of information across sources.

Step 4: Organize Assignments Quickly

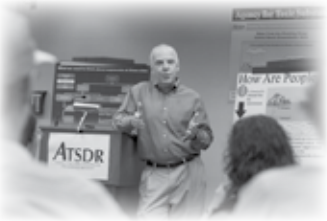
The initial organization around an event involves assigning people responsibilities. Much of this will be predetermined by the crisis plan. Some modifications may be required based on availability of personnel and the nature of the event. Organizational processes can be divided according to the immediate and the ongoing issues.

- **Immediate issues:**
  - Determine who is managing the event from an operations, programmatic, and scientific perspective.
  - Consider how communication coordinates with the program staff in charge of managing the crisis. What meetings should communication staff attend?
  - What are the crisis communication teams (media, Web, public, partner, stakeholder, and support)? Are they operational?
  - What are the current, most pressing priorities?
  - What resources are needed? Is staffing sufficient?
  - Who is the spokesperson for this event and what support might he or she need (i.e., SMEs as additional spokespersons, additional briefing or training, cultural liaisons)?
  - At this point, should communication teams operate 10, 12, 20, or 24 hours per day and 5, 6, or 7 days per week?
  - Will communication staff be expected to travel?
  - Are supplemental funds needed?
  - Is contractor support needed?

- **Ongoing organizational issues:**
  - What is the potential for the crisis to get worse?
  - Will events result in more intense public or media interest?
  - Have rumors or points of conflict emerged?
  - How should the organization respond to these issues? Is there a current response and is it adequate?
  - Should the organization continue to be a source of information to the media about this crisis? Would some issues be more appropriately addressed by other groups or agencies?
  - Are the teams operating with approximately equal effectiveness? How could efficiency be improved?
  - Is the clearance process operating efficiently? How can it be improved?
  - Are resources sufficient? Should staff resources be reallocated?
  - Should the organization reset times for daily updates to the media or cancel the regular updates?
  - Are daily or weekly subject matter expert briefings appropriate to reduce the demand for one-on-one interviews with these experts?
  - Should personnel who have been temporarily assigned to the crisis be returned to normal duties?
  - Should hours of operation be increased or reduced?
  - Are supplemental funds needed to meet public and media demand for information?
  - What is the organization learning from the public and the media that could be useful to outbreak investigators and policy managers?

In both immediate and long-term issues, partner coordination is critical. Questions about partner involvement might include:

- Who are the partner organizations (traditional and emergent) of this event? Have they been briefed? Are they concerned about their own reputations?
- Which partners are or should be involved in the response? How can coordination occur?
- Can a partnership improve the response? If so, who and how will you engage them?
- Do partners wish to get involved in the response? If so, who and how?



Step 5: Prepare Information and Obtain Approvals

Rapid clearance of information for release comes with inherent tension and challenges. The approval process is unique to each organization. This function includes all message and development activities, the approval process, and the coordination of information within an organization. Several questions are important to the approval process:

- Who are the audiences, both immediate and remote? Who's been affected by this event? Who's upset or concerned? Who needs to be alerted?
- What are the audiences' perceptions, backgrounds, and values?
- What are their immediate and long-term information needs and wants?
- What do media personnel want to know?
- How can your organization demonstrate appropriate empathy?
- What are the facts? What happened?
- What is the organization's stance on the issue? Are there policies or values that are relevant to this issue?
- What is your organization doing? How is your organization solving the problem?
- What can your organization do to keep this from happening again?
- What other agencies or groups are involved and what are they saying?
- What should the public be doing?
- What public information is available and when will more information be available?

Step 6: Release Information Through Prearranged Channels

The crisis and emergency communication function at its core is about releasing information to key audiences. Anticipating likely questions from the media and recognizing their role can improve the effectiveness of communication. Like emergency management professionals, reporters are professionals doing an important job and are likely to be cooperative, particularly during the initial stage of a crisis. When information is effectively delivered to the media, the chances of inaccurate reporting are reduced. It may help you to anticipate likely media questions such as the following:

- Who's in charge?
- What are you doing for the people who are hurt?
- Is the situation under control?
- What can we expect?
- Why did this happen?

- Why wasn't this prevented?
- What else can go wrong?
- When did you begin working on this (were notified of this, determined this)?
- What do these data or results mean?
- Are there bad things you aren't telling us?
- When can we get more information?

When talking to the media, some basic kinds of information can generally be provided:

- Provide only information that has been approved and cleared by the appropriate channels. Don't speculate and don't over-reassure.
- Repeat the facts about the event.
- Describe the data collection and investigation process.
- Describe what your organization is doing about the crisis.
- Describe what other organizations are doing.
- Explain what the public should be doing.
- Describe how to obtain more information about the situation.

Step 7: Obtain Feedback and Conduct Crisis Evaluation

As soon as practical following a crisis, conduct an evaluation of the organization's response. Get direct feedback from key audiences. Assess what is being reported in the mainstream and new media. This will allow messages to be adjusted to address deficiencies or correct problems. These assessments are also important in the learning process:

- Keep notes or audio record observations made during the initial phase of the crisis.
- Identify the needs of special audiences, including any special-needs populations or stigmatized groups.
- Compile and analyze comments and criticisms from various audiences, partners, agencies, and stakeholders.
- Gather and analyze media coverage and Web activity.
- Conduct a hot wash (an immediate review of what happened, what went right, and what went wrong) to capture lessons learned.
- Develop a "Strengths, Weaknesses, Opportunities, and Threats" report on the crisis communication operation. Report your results to your organization's leadership.

- Share results within your organization.
- Determine the need for any changes to the crisis communication plan.
- Determine if there is a need to improve policies and processes.
- Incorporate changes with appropriate training into your organization.
- Revise crisis plan policies and procedures based on lessons learned.

Step 8: Conduct Public Education

Once the crisis begins to subside, your organization may need to carry out additional public education activities. Because the public is attending to the event, this may be a chance to improve public understanding, support, and preparation. The public may also be more receptive to information and behavioral change. Consider the following activities:

- Assess the need for your organization to educate your audience about related public health issues related to this crisis.
- Determine the public's perceptions and information needs related to this crisis. Are there any misperceptions or misunderstandings that need to be corrected?
- Does the public understand the organization's health messages on this issue? Is the public taking appropriate actions?
- Decide if audiences not involved in the crisis should be targeted for public education.
- Should a public health message related to this crisis event be incorporated into other health communication activities such as Public Health Week or National Infant Immunization Week?
- Should this event be used to highlight any related public health messages?
- Should any websites be updated as a result of this crisis?
- Should any of the crisis materials be institutionalized?
- Would a series of postcrisis, preproduced articles be useful in this situation?

Step 9: Monitor Events

Monitoring should occur at all points. It provides ongoing feedback and determines how messages or the general communication strategy should be changed. Crisis monitoring protocols include the following:

- Media monitoring, including television, radio, mainstream print, and specialized print
- Internet monitoring, including social media and related websites
- Ongoing exchange of information with key partners, such as other organizations and state health departments, SMEs, and partners
- Public opinion monitoring and collection of other relevant information

Conclusion

Planning is the most important step to ensure an effective response using CERC. It takes considerable time and effort to develop and maintain a crisis communication plan. Understanding the features of a plan, as well as the types of information to include and the kinds of questions asked, are vital to the plan's success.

Plans should not try to answer all the questions or determine all the decisions, but they should reveal a process. This is especially true in the first 24 to 48 hours. By doing so, your plan buys the crisis communicator important time and helps ensure that the initial response is effective.

Checklist 4–1: First 48 Hours

Critical First Steps After Verification:

Notification:

- ❑ Use your crisis plan's notification list. Make certain that your chain of command has been notified and they know you are involved.
- ❑ Ensure that your leadership is aware of the emergency, especially if awareness of the event comes from the media and not the EOC. Let them know you are involved.
- ❑ Give leadership your first assessment of the emergency from a communication perspective and inform them of your next steps. Remember: Be first, be right, be credible.

Coordination:

- ❑ Contact your local, state, and federal partners now.
- ❑ Contact your FBI counterpart, if there is potential for criminal investigation.
- ❑ Secure a spokesperson as designated in the plan.
- ❑ Initiate alert notification and call in extra communication personnel, per the plan.
- ❑ Connect with the EOC and make your presence known.

Media:

- ❑ Be first: Provide a statement that your agency is aware of the emergency and is involved in the response.
- ❑ Be right: Begin monitoring the media for misinformation that must be corrected.
- ❑ Be credible: Tell the media when and where to get updates from your agency.
- ❑ Give facts: Don't speculate. Ensure partners are saying the same thing.

The public:

- ❑ Trigger your public information toll-free number operation. Do this now if you anticipate that the public will seek reassurance or information directly from your organization. Adjust hours of operation and the number of on-call managers as needed.
- ❑ Use your initial media statement as your first message.
- ❑ Ensure that your statement expresses empathy and acknowledges public concern about the uncertainty.
- ❑ Give the precleared facts you have and refer the public to other information sources as appropriate.
- ❑ Remind people that your agency has a process in place to mitigate the crisis.
- ❑ Start call monitoring to catch trends or rumors now.

Partners and Stakeholders:

- ❑ Send a basic statement to partners and stakeholders to let them know you are thinking about them. Get them involved as needed.
- ❑ Use your prearranged notification systems, preferably e-mail lists.
- ❑ Engage leadership to make important first phone calls, based on your plan. Have them reach partners and key stakeholders to let them know your agency is responding.
- ❑ Use the internal communication system, probably e-mail, to notify employees that their agencies are involved in the response and updates will follow. Ask for their support.

Resources:

- ❑ Disseminate contact lists as appropriate.
- ❑ Conduct the crisis risk assessment and implement assignments and hours of operation accordingly.
- ❑ Stake out your preplanned place in the EOC or adjoining area.

Checklist 4–2. Notification Schedule

Emergency Risk Communication: Immediate Response to Inquiries

By phone to media:

- ❑ "We've just learned about the situation and are trying to get more complete information now. How can I reach you when I have more information?"
- ❑ "All our efforts are directed at bringing the situation under control, so I'm not going to speculate about the cause of the incident. How can I reach you when I have more information?"
- ❑ "I'm not the authority on this subject. Let me have XXXX call you right back."
- ❑ "We're preparing a statement on that now. Can I fax it to you in about two hours?"
- ❑ "You may check our website for background information and I will fax or e-mail you with the time of our next update."

At the incident site or press availability:

Response to inquiries (you are authorized to give out the following information):

Date: _____ Time: _____ Approved by: _____

This is an evolving emergency and I know that, just like we do, you want as much information as possible right now. While we work to get your questions answered as quickly as possible, I want to tell you what we can confirm right now:

At approximately _____ (time), a (brief description of what happened)

_____

_____

_____

At this point, we do not know the number of (persons ill, persons exposed, injuries, deaths, etc.)

We have a system (plan, procedure, operation) in place for just such an emergency and we are being assisted by (police, FBI, EOC) as part of that plan.

The situation is (under) / (not yet under) control and we are working with (local, state, federal) authorities to (contain this situation, determine how this happened, determine what actions may be needed by individuals and the community to prevent this from happening again).

We will continue to gather information and release it to you as soon as possible. I will be back to you within (amount of time, e.g., 2 hours or less) to give you an update. As soon as we have more confirmed information, we will provide it. We ask for your patience as we respond to this emergency.

Source: CDC Public Health Training Network satellite and Web broadcast *CDC Responds: Risk Communication and Bioterrorism,* December 6, 2001, Barbara Reynolds, CDC Crisis Communication Plan, Draft 1999.

Checklist 4–3. Public Information Emergency Response Call Tracking

Time of call:_____ A.M. P.M.

Nature of call:

- ❑ Specific information contained in stock materials:
  - ❑ Disease or illness-related
  - ❑ Treatment-related
  - ❑ Prevention-related
  - ❑ Clarify recommendations
  - ❑ Current status of the incident
  - ❑ Hot topic 1 _____
  - ❑ Hot topic 2 _____
- ❑ Request for referral:
  - ❑ For more health information
  - ❑ For medical attention
  - ❑ Other _____
- ❑ Feedback to agency:
  - ❑ Complaint about specific contact with agency
  - ❑ Complaint about recommended actions
  - ❑ Concern about ability to carry out recommended action
  - ❑ Report possible cases or markers (e.g., dead birds for West Nile or increased absences from place of employment)
  - ❑ Rumor or misinformation verification (briefly describe)
- ❑ Outcome of call:
  - ❑ Calmed caller based on scripted information
  - ❑ Referred caller to:
  - ❑ Health expert outside the department
  - ❑ Personal doctor or health care professional
  - ❑ Emergency room
  - ❑ Red Cross or other non-government organization
  - ❑ FEMA or state emergency management agency

Action Needed:

- ❑ None
- ❑ Return call to:
  - ❑ Caller's name: _____
  - ❑ Telephone number: _____
  - ❑ Gender: M F
- ❑ Return Call urgency:
  - ❑ Critical (respond immediately)
  - ❑ Urgent (respond within 24 hours)
  - ❑ Routine Call taken by: _____
    Date: _____

Checklist 4–4. Incident Media Call Triage Sheet

Deadline: ❑ 2 hours ❑ Today A.M. ❑ Today P.M. ❑ ASAP ❑ Other

Media outlet:

- ❑ Local ____ TV ____ Magazine ____ Blog ____ Other
- ❑ Regional ____ Radio ____ Daily/Wire ____ Website
- ❑ National

Caller's name (print first and last):

Caller's contact information: Phone(s):
Fax:
E-mail:

Request:

- ❑ SME* questions
- ❑ Interview (by name request?) _____
- ❑ Background/B-roll
- ❑ Fact check
- ❑ Update
- ❑ Return call to press officer

Topic:

- ❑ Numbers
- ❑ Response/Investigation
- ❑ Health/disease issue/treatment
- ❑ Hot issue 1 _____
- ❑ Hot issue 2 _____
- ❑ Other

Action needed:

- ❑ Return call expected from PA** or press officer
- ❑ Return call expected from SME*

Comments:

PA suggested triage priority:**

- ❑ Critical(respond immediately)
- ❑ Urgent (respond within 24 hours)
- ❑ Routine

No action needed; call closed by:

- ❑ PA** answered question
- ❑ PA referred to Internet
- ❑ PA referred to CIO
- ❑ PA referred to outside CDC
- ❑ PA other

Taken by: _____

Time: _____ A.M. _____ P.M.

Date: S M T W T F S _____

* SME = Subject Matter Expert

** PA = Press Assistant

Checklist 4–5. Needs Assessment for Crisis and Emergency Risk Communication

Planning, Research, Training, and Evaluation

❑ Yes ❑ No Does your organization have an crisis and emergency risk communication operational plan for public information and media, partner, and stakeholder relations?

❑ Yes ❑ No Have you coordinated your planning with the community or state emergency operation center?

❑ Yes ❑ No Have you coordinated your planning with other response organizations or competitors?

❑ Yes ❑ No Have designated spokespersons received media training and risk communication training?

❑ Yes ❑ No Do the spokespersons understand crisis and emergency risk communication principles to build trust and credibility?

If Your Organization Has a Plan, Does It Have the Following Elements:

❑ Yes ❑ No Designated responsibilities for public information team?

❑ Yes ❑ No Information verification and clearance procedures?

❑ Yes ❑ No Agreements on information release authorities (who releases what, when, and how)?

❑ Yes ❑ No Regional and local media contact list, including after-hours news desks?

❑ Yes ❑ No Procedures to coordinate with the public health organization response teams?

❑ Yes ❑ No Designated spokespersons for public health issues in an emergency?

❑ Yes ❑ No Public health organization emergency response team after-hours contact numbers?

❑ Yes ❑ No Contact numbers for emergency information partners such as governor's public affairs officer, local FBI public information special agent in charge, local or regional department of agriculture or veterinarian public information officers, Red Cross and other nongovernmental organizations?

❑ Yes ❑ No Agreements and procedures to join the Joint Information Center (JIC) of the emergency operations center, if activated?

If Your Organization Has a Plan, Does It Have the Following Elements:

❑ Yes ❑ No Procedures to secure needed resources such as space, equipment, and personnel, to operate the public information operation during a public health emergency 24 hours per day, 7 days per week, if needed?

❑ Yes ❑ No Identified methods of information dissemination to public, stakeholders, and partners such as websites, Twitter feeds, e-mail lists, broadcast fax, door-to-door leaflets, and press releases, during a crisis?

Message and Audiences

❑ Yes ❑ No The following are types of incidents that could require intense public information, media, and partner communication responses:

- ❑ Infectious disease outbreak (e.g., pandemic influenza, cholera, E. coli infection)?
- ❑ Bioterrorism (e.g. anthrax, smallpox)
- ❑ Chemical emergencies (e.g., nerve agents, oil spill)
- ❑ Explosions (e.g., explosions, terrorist bombing)
- ❑ Natural disasters and severe weather (e.g. earthquakes, hurricanes, tornadoes)
- ❑ Radiation emergencies (e.g., dirty bomb, nuclear accident)

❑ Yes ❑ No Have you identified special populations, such as the elderly, people who speak a first language other than English, Tribal communities, and border populations? List any specific subpopulations, such as tribal nations, persons with chronic respiratory illnesses, and unvaccinated seniors, that need to be targeted with specific messages during a public health emergency related to your organization.

❑ Yes ❑ No Have you identified your organization's partners who should receive direct information and updates (not solely through the media) from your organization during a public health emergency?

❑ Yes ❑ No Have you identified all stakeholder organizations or populations who should receive direct communication during a public health-related emergency? These are groups or organizations your organization believes have an active interest in monitoring activities, to whom you are most directly accountable, other than official chain of command.

❑ Yes ❑ No Have you planned ways to reach people according to their reactions to the incident (fight or flight)? Are messages, messengers, and methods of delivery sensitive to all types of audiences in your area of responsibility?

Message and Audiences

❑ Yes ❑ No Are there mechanisms and resources in place to create messages for the media and public under severe time constraints, including methods to clear these messages within the emergency response operations of your organization? Make sure to include cross clearance in this consideration.

❑ Yes ❑ No Have you identified how you will perform media evaluation, content analysis, and public information call analysis in real time during an emergency to ensure adequate audience feedback?

❑ Yes ❑ No Have you developed topic-specific pre-crisis materials for identified public health emergency issues, or identified sources of these materials if needed:

- ❑ Yes ❑ No Topic fact sheet (e.g., description of the disease, public health threat, treatment?)
- ❑ Yes ❑ No Public Questions and Answers?
- ❑ Yes ❑ No Partner Questions and Answers?
- ❑ Yes ❑ No Resource fact for media, public, or partners to obtain additional information?
- ❑ Yes ❑ No Web access and links to information on the topic?
- ❑ Yes ❑ No Recommendations for affected populations?
- ❑ Yes ❑ No Background B-roll for media use on the topic?
- ❑ Yes ❑ No List of subject matter experts outside your organization who would be effective information sources for the public and the media regarding your activities during a public health emergency?

Messenger

❑ Yes ❑ No Have you identified public health spokespersons for media and public appearances during an emergency?

If Yes, Have You…

❑ Yes ❑ No Identified persons by position, such as a media spokesperson or a community meeting speaker, to act as spokespersons for multiple audiences and formats about public health issues during an emergency?

❑ Yes ❑ No Ensured that the spokespersons understand their communication roles and responsibilities and will incorporate them into their expected duties during the crisis?

Methods of Delivery and Resources

❑ Yes ❑ No Does your organization have "go kits" for public information officers who may have to abandon their normal place of operation during a public health emergency or join a JIC?

Do the Kits Include…

❑ Yes ❑ No Computer(s) with access to the Internet and e-mail?

❑ Yes ❑ No CD-ROM, DVD, or flash drives containing the elements of the crisis communication plan, including media contact lists, public health contact lists, organization contact lists, partner contact lists, and information materials?

❑ Yes ❑ No Cell phone or satellite phone, wireless device, etc.?

❑ Yes ❑ No Funding mechanism, such as a credit card, that can be used to purchase operational resources as needed?

❑ Yes ❑ No Manuals and background information necessary to provide needed information to the public and the media?

❑ Yes ❑ No Care and comfort items for the public information operations staff?

❑ Yes ❑ No Have you identified the mechanisms that are or should be in place to ensure multiple channels of communication to multiple audiences during a public health emergency?

Channels of Communication

❑ Yes ❑ No Have you identified the mechanisms that are or should be in place to ensure multiple channels of communication to multiple audiences during a public health emergency?

If Yes, Do Mechanisms Include…

❑ Yes ❑ No Media channels such as print, TV, radio, and Web?

❑ Yes ❑ No Websites, Facebook, Twitter, and other social media?

❑ Yes ❑ No Phone banks?

❑ Yes ❑ No Town hall meetings?

❑ Yes ❑ No Listserv e-mail?

❑ Yes ❑ No Broadcast fax?

❑ Yes ❑ No Letters by mail?

❑ Yes ❑ No Subscription newsletters?

❑ Yes ❑ No Submissions to partner newsletters?

❑ Yes ❑ No Regular or special partner conference calls?

❑ Yes ❑ No Door-to-door canvassing?

❑ Yes ❑ No Are contracts or agreements in place to post information to broadcast fax or e-mail systems?

❑ Yes ❑ No Have locations for press conferences been designated and resourced?

Personnel

❑ Yes ❑ No Have you identified employees, contractors, fellows, and interns currently working for you or available to you in an emergency that have skills in the following areas:

❑ Yes ❑ No Public affairs specialist?

❑ Yes ❑ No Health communication specialist?

❑ Yes ❑ No Communication officer?

❑ Yes ❑ No Health education specialist?

❑ Yes ❑ No Training specialist?

❑ Yes ❑ No Writer/editor?

❑ Yes ❑ No Technical writer/editor?

Personnel

❑ Yes ❑ No Audio/visual specialist?

❑ Yes ❑ No Internet/Web design specialist?

❑ Yes ❑ No Social media specialist?

❑ Yes ❑ No Others who contribute to public and provider information?

❑ Yes ❑ No Have you identified who will provide the following expertise or execute these activities during a public health emergency (including backup):

Command and Control

❑ Yes ❑ No Directs the work related to the release of information to the media, the public, and partners?

❑ Yes ❑ No Activates the plan, based on careful assessment of the situation and the expected demands for information by the media, partners, and the public?

❑ Yes ❑ No Coordinates with horizontal communication partners, as outlined in the plan, to ensure that messages are consistent and within the scope of the organization's responsibility?

❑ Yes ❑ No Provides updates to the organization's director, EOC command, and higher headquarters, as determined in the plan?

❑ Yes ❑ No Advises the director and chain of command regarding information to be released, based on the organization's role in the response?

❑ Yes ❑ No Ensures that risk communication principles are employed in all contact with the media, the public, and partner information release efforts?

❑ Yes ❑ No Advises on incident-specific policy, science, and the current situation?

❑ Yes ❑ No Reviews and approves materials for release to the media, the public, and partners?

❑ Yes ❑ No Obtains required clearance of materials for release to the media on policy or sensitive topic-related information not previously cleared?

❑ Yes ❑ No Determines the operational hours and days, and reassesses throughout the emergency response?

❑ Yes ❑ No Ensures resources are available, such as personnel, technical resources, and mechanical supplies?

Media

❑ Yes ❑ No Assesses media needs and organizes mechanisms to fulfill media needs during the crisis, such as daily briefings in person versus a website update?

❑ Yes ❑ No Triages the response to media requests and inquiries?

❑ Yes ❑ No Ensures that media inquiries are addressed as appropriate?

❑ Yes ❑ No Supports and briefs spokespersons?

❑ Yes ❑ No Develops and maintains media contact lists and call logs?

❑ Yes ❑ No Produces and distributes media advisories and press releases?

❑ Yes ❑ No Produces and distributes materials such as fact sheets and B-roll?

❑ Yes ❑ No Oversees media monitoring systems and reports (e.g., analyzing environment and trends to determine needed messages, determining what misinformation needs to be corrected, identifying concerns, interests, and needs arising from the crisis and the response)?

❑ Yes ❑ No Ensures that risk communication principles to build trust and credibility are incorporated into all public messages delivered through the media?

❑ Yes ❑ No Acts as member of the JIC of the field site team for media relations?

❑ Yes ❑ No Serves as liaison between organizations through the JIC?

Direct Public Information

❑ Yes ❑ No Manages the mechanisms for responding to public requests for information via social media, telephone, in writing, or by e-mail?

❑ Yes ❑ No Oversees public information monitoring systems and reports (e.g., analyzing environment and trends to determine needed messages; determining what misinformation needs to be corrected; identifying concerns, interests, and needs arising from the crisis and the response)?

❑ Yes ❑ No Oversees and activates social media, telephone, public e-mail correspondence response systems?

❑ Yes ❑ No Organizes and manages the emergency response Web sites, Web pages, Facebook page and other social media?

Direct Public Information

❑ Yes ❑ No Establishes and maintains links to other emergency response Web sites?

Partner and Stakeholder Information

❑ Yes ❑ No Establishes communication protocols based on prearranged agreements with identified partners and stakeholders?

❑ Yes ❑ No Translates EOC situation reports and meeting notes into information appropriate for public and partner needs?

❑ Yes ❑ No Works with subject matter experts (SMEs) to create situation-specific fact sheets, Q&As, and updates?

❑ Yes ❑ No Manages the development and testing of messages and materials for cultural and language requirements of special populations?

❑ Yes ❑ No Coordinates with other communication team members regarding content and message needs?

❑ Yes ❑ No Adapts messages based on analysis from media, social media, public, and partner monitoring systems, SME clearance, and feedback?

❑ Yes ❑ No Guides documents through formal clearance process before they are released to the media, the public, or partner organizations?

Content and Material for Public Health Emergencies

❑ Yes ❑ No Develops and establishes mechanisms and protocols to rapidly receive information from the EOC

❑ Yes ❑ No Translates EOC situation reports and meeting notes into information appropriate for public and partner needs

❑ Yes ❑ No Works with subject matter experts (SMEs) to create situation-specific fact sheets, Q&As, and updates

❑ Yes ❑ No Manages the development and testing of messages and materials for cultural and language requirements of special populations

❑ Yes ❑ No Coordinates with other communication team members regarding content and message needs

Content and Material for Public Health Emergencies

❑ Yes ❑ No Adapts messages based on analysis from media, social media, public, and partner monitoring systems, SME clearance, and feedback

❑ Yes ❑ No Guides documents through formal clearance process before they are released to the media, the public, or partner organizations

Suggestions to Consider about Resources

Space

❑ Yes ❑ No You have space to operate communication teams or the JIC outside the EOC. A place is also needed to bring media on site that is separate from the EOC and the JIC.

❑ Yes ❑ No You have quiet space to quickly train and brief spokespersons.

❑ Yes ❑ No You have conference space for team meetings.

❑ Yes ❑ No You have office space dedicated for equipment exclusive to your use. You cannot stand in line for the copier when facing media deadlines.

❑ Yes ❑ No You have space where staff can take breaks when necessary, whether for eating, sensory deprivation, rest, or even a nap.

❑ Yes ❑ No An offsite space is identified in case the crisis damages your original space.

Contracts and Memoranda of Agreement(s)

❑ Yes ❑ No Consider a contract with a comprehensive newswire service that will disseminate your information across a wide variety of platforms, such as print and broadcast news, Internet, and social media sites. Also consider using a variety of communication tools, such as press releases, videos, images, e-mail, and social media tagging.

❑ Yes ❑ No Consider contracts with writers or public relations personnel who can augment your staff, especially persons with social media writing and monitoring expertise, if your organization doesn't have those personnel.

❑ Yes ❑ No Consider a contract for administrative support and technical support.

Contracts and Memoranda of Agreement(s)

❑ Yes ❑ No Consider a phone system/contractor that can supply a phone menu that directs the type of caller and level of information desired:

- ❑ General information about the threat
- ❑ Tip line listing particular actions people can take to protect themselves
- ❑ Reassurance/counseling
- ❑ Referral information for media requests for information or interviews
- ❑ Referral information for health-care/medical facility workers
- ❑ Referral information for epidemiologists or others needing to report cases
- ❑ Laboratory and treatment protocols
- ❑ Managers looking for policy statements for employees

Equipment

❑ Yes ❑ No Computers (desktop or laptop) loaded with secure Internet access, software programs, and documents needed for crisis communication and information sharing. These items include e-mail lists, the crisis communication plan, and collaboration software.

❑ Yes ❑ No Landline phones with dedicated lines and 800 MHz radios, in case of power outage or cell phone network overload

❑ Yes ❑ No Fax machines with numbers preprogrammed for broadcast fax releases to media outlets and partners

❑ Yes ❑ No Dedicated computer server with additional bandwidth to handle increased Internet traffic

❑ Yes ❑ No Computer printers, including at least one color printer

❑ Yes ❑ No Tables (You will need a large number of tables.)

❑ Yes ❑ No Color copier machine and backup

❑ Yes ❑ No Cell phones, pagers, personal data devices, and e-mail readers

❑ Yes ❑ No Extension cords

❑ Yes ❑ No Visible calendars, flow charts, bulletin boards, and easels

Equipment

❑ Yes ❑ No Designated personal message board

❑ Yes ❑ No Small refrigerator

❑ Yes ❑ No A/V equipment to host press conferences such as portable microphones, sound system, multibox or press box, projector and screen, and recording devices

❑ Yes ❑ No Podium

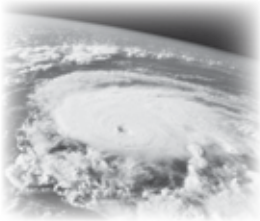
❑ Yes ❑ No TVs with cable hookup

❑ Yes ❑ No DVD player

❑ Yes ❑ No Paper shredder

❑ Yes ❑ No Alternative power supply, such as a generator, for the EOC and the JIC

❑ Yes ❑ No Portable cots



Equipment

❑ Yes ❑ No Supplies (all labeled "for emergency only use"):

- ❑ Copier toner
- ❑ Printer ink
- ❑ Paper, notepads, and notebooks
- ❑ Pens, pencils, markers, highlighters, and erasable markers
- ❑ Supplies for mail, FedEx, UPS, and other shipping services
- ❑ Sticky notes
- ❑ Standard press kit folders
- ❑ Flash drives and portable hard drives
- ❑ Color-coded everything (copy paper, folders, inks, etc.)
- ❑ Baskets to contain items that you're not ready to throw away
- ❑ Organizers to support your clearance and release system
- ❑ Expandable folders with alphabet or days of the month
- ❑ Staplers (lots of them)
- ❑ Paper punch
- ❑ Three-ring binders
- ❑ Organization's press kit or its logo on a sticker
- ❑ Organization letterhead
- ❑ Paper clips (all sizes)
- ❑ Tape

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CRISIS EMERGENCY RISK COMMUNICATION
2012 EDITION

Chapter 5: The Spokesperson

Chapter 5: The Spokesperson

This chapter will promote understanding in the following areas:

- The role of the spokesperson in crisis communication
- What makes a good spokesperson?
- Working with the media
- Spokespersons in public meetings
- Assessing spokesperson skills

Giving Your Organization a Human Form

The most important role in responding to a crisis is the formal, designated spokesperson. The spokesperson brings the organization to life. He or she embodies the organization and personifies the response. A spokesperson takes the organization from an "it" to a "we" and is a critical human connection to the various audiences.

In an ideal world, every organization would have a caring and articulate spokesperson who exhibits charisma and confidence. In many cases, there is little choice about who ultimately speaks for the organization during a crisis. One thing communication staff can control is to insist spokespersons are trained. Few people are born crisis spokespersons. In a crisis, even the most skilled communicator can make mistakes. No person should represent the entire organization in these situations unless he or she has invested time and energy in developing the appropriate skills.

What's important is not how a person looks on television but the ability to effectively connect with the audience, either through the use of the media or in person.

Spokespersons allow the public to put a face to the act of responding to, investigating, and resolving a crisis. How a spokesperson handles public and media inquiries, in addition to what he or she says, helps establish credibility for an organization. It also contributes to the public's transition from the crisis stage to resolution and recovery stages. An organization should carefully choose spokespersons. The selection should be based on the individual's familiarity with the subject matter and his or her ability to talk about it in a way that is understandable and conveys confidence.[1]

Choosing the Right Spokesperson is Important

Spokespersons allow the public to put a face to the act of responding to, investigating, and resolving a crisis. How a spokesperson handles public and media inquiries, in addition to what he or she says, helps establish credibility for an organization. It also contributes to the public's transition from the crisis stage to resolution and recovery stages. An organization should carefully choose the personnel who will represent it. The selection should be based on two factors:

- The individual's familiarity with the subject matter
- His or her ability to talk about it clearly and with confidence

Consider two similar cases with different outcomes:

- **Case 1:** In this situation, the CEO of a corporation accused of polluting groundwater called a news conference where he expressed anger at being unfairly accused. In this news conference he acted condescending toward his critics. A member of the audience presented him with a glass of water from her well and asked him to drink it. He did and in the process choked. Had this incident happened recently, it would likely have been recorded and loaded on YouTube.
- **Case 2:** This is a situation in which children are among the victims diagnosed with cancer in a town where the people believe the activities of a major corporation are linked to the town's prevalence of cancer. At one point during the meeting, in front of national media, a 9-year-old child with a jar of dirty water demands assurance that the water she is drinking is safe. The CDC spokesperson who was present for the meeting was both knowledgeable about the issue and trained to talk about it in an effective and consistent manner. As a result, the spokesperson responded to this line of questioning effectively, without anger, and was able to defuse a potentially difficult situation.

The right selection and training of a spokesperson can lead to better outcomes. If possible, have the crisis spokesperson appear in public often to help establish familiarity and credibility for your organization. He or she should not be a new face. For example, throughout the duration of the Brentwood postal facility anthrax case, an Epidemic Intelligence Service (EIS) officer met with the Brentwood workers several times to discuss antibiotic prophylaxis. When the CDC recommended 30 days of therapy in addition to the anthrax vaccine, an activist in the crowd started shouting inflammatory comments. But because the EIS officer had established himself as a credible and trusted source of information, instead of rallying around the activist, the crowd told the heckler to be quiet so they could hear what the EIS officer had to say.

The Role of the Spokesperson in Crisis Communication

The spokesperson during an emergency should communicate information the public wants or needs. This information should empower people, build trust, and reduce the level of harm. This includes short-term and long-term psychological and physical harm. The spokesperson should seek to accomplish several goals and be prepared to respond to a variety of questions, such as the following:

- What is the incident and how severe is its magnitude (e.g., who, what, where, when, why, and how)?
- What are the health and safety risks for individuals and communities?
- Who is managing the event and what are they doing to respond to the incident?

The spokesperson can orient the larger audience at the beginning of a response by following these suggestions:

- Establish an appropriate level of concern and empathy, which can help create rapport with the audience.
- Remain calm while acknowledging uncertainty and avoiding the tendency to over-reassure.
- Show competence and consistency in responding to help build confidence and trust.
- Demonstrate openness and transparency. Panic is less common than most people imagine and doesn't come from bad news, but from mixed messages or a feeling that people aren't being told the truth.

"We, in a free democracy, owe the public open and factual communications whether it's a good story or a bad story. We are a great, resilient nation, and we've proved that. So we can take bad news as well as good news. What we can't take is a block-out of no news."

Col. Terry Ebbert, USMC Retired,
Former Director,
Homeland Security,
City of New Orleans

As the event unfolds, the spokesperson may also need to address more controversial issues, including the following:

- The potential allocation of scarce public health and safety resources that are seen as unfair or wasteful
- People or communities choosing to ignore or circumvent public health and safety recommendations
- Questions and criticism about blame, responsibility, and whether the response is adequate

Remember your spokespersons are not solely responsible for messages. However, they must be involved in the development of those messages to ensure some ownership. The words and the person must match. Spokespersons don't just read a statement; they are the statement. If spokespersons don't fully understand the purpose behind the messages or

Spokespersons don't just read a statement; they are the statement.

recommendations, they will have difficulty assuming a stance of confidence and conveying believability and trust.

Others can and should help with the spokesperson role. While the primary spokesperson is the central figure in offering the message, he or she may be joined by other experts or agency heads. The spokesperson may turn to these supporters for answers to specific questions or to provide additional background.

Message development is covered extensively in Chapter 3; however, it's worth briefly repeating some of the CERC principles during a crisis. The following rules help to build confidence and trust. During an emergency, communication to the public is not business as usual. Before you can communicate the facts and recommendations for action, you must lessen the audience's psychological barriers by openly acknowledging their concerns.

Basic CERC rules include the following:

- **Don't over-reassure:** The objective is not to placate but to elicit accurate, calm concern. Consider statements such as: "This is a very dangerous winter storm, but people can take actions to limit their risk. If at all possible, stay at home and off the streets until the storm passes and roads are clear."
- **Acknowledge uncertainty:** Offer only what you know: "The situation is developing and we don't yet have all the facts. Based on what we do know, we expect…."
- **Emphasize that a process is in place to learn more:** Describe that process in simple terms: "Samples are taken from each person reporting flu-like symptoms. These samples are being tested now to identify the exact strain."
- **Give anticipatory guidance:** If you are aware of future negative outcomes, let people know what to expect. For example, to foreshadow side effects of antibiotics, you could say, "This broad spectrum antibiotic is an effective medication, but it can cause stomach upset, including nausea and diarrhea in some people."
- **Be regretful, not defensive:** Say, "We wish that more doses of vaccine were currently available" or "We feel terrible that…" when acknowledging mistakes or failures from the organization.
- **Acknowledge people's fears:** Don't tell people they shouldn't be afraid. They are afraid, and they have a right to their fears. Use statements like, "We understand people are concerned and afraid, and it is normal to be frightened when facing a wildfire."
- **Acknowledge the shared misery:** Some people will be less frightened than they are miserable, feeling hopeless and defeated. Acknowledge the misery of a catastrophic event, and then help move people toward the future through positive actions. Use statements like: "Right now, with so many people in shelters, it's hard to see how things can return to normal. We are working hard to start the process of returning people to their homes."
- **Express wishes:** Say, "I wish we knew more" or "I wish our answers were more definitive."

- **Be willing to address the "what if" questions:** These are the questions that everyone is thinking about, and to which they want expert answers. Although it's often impractical to fuel "what ifs" when the crisis is contained and not likely to affect large numbers of people, it is reasonable to answer "what ifs" if the "what ifs" could happen and people need to be emotionally prepared for them. Use statements like, "We have considered the possibility that the situation will get worse and we have identified additional locations for shelters."
- **Give people things to do:** In an emergency, some actions are directed at victims, those exposed, or those who have the potential to be exposed. Simple actions in an emergency will give people a sense of control and will help motivate them to stay tuned to what is happening. It may also be helpful to give people a choice of actions matched to their level of concern. Give a range of responses: a minimum response, a maximum response, and a recommended middle response. Use statements like, "You may wish to cook spinach thoroughly before eating it. You may wish to avoid eating spinach. Or, you may wish to eat only prepackaged frozen spinach."
- **Ask more of people:** Perhaps the most important role of the spokesperson is to ask people to manage the risk and work toward solutions with you. People can tolerate considerable risk, especially voluntary risk. If you acknowledge the risk's severity and complexity, and recognize people's fears, you can then ask the best of them. A spokesperson, especially one who is on the ground and at personal risk, can model the appropriate behavior—not false happiness, but true willingness to go on with life as much as possible and to make reasonable choices. Your determination to face risk will help others looking for role models.

  In general, research demonstrates that people respond to crises in cooperative and problem-solving ways.[2] Most often, they help their neighbors and take reasonable actions. Sparking those inherent attributes will help people cope with uncertainty, fear, and misery. Use statements like, "We are all shocked and concerned about this tragedy. We need to stay strong, with hope for the future, as we do our best to help each other. By staying informed and following instructions from health officials, you can protect yourself, your family, and the community against this public health threat."

What Makes a Good Spokesperson?

It's difficult to capture all qualities of a good spokesperson and pass them on to others. But it's not difficult to identify the qualities of a poor spokesperson.[3]

Nearly all speaker training starts or ends with: "Be yourself. Be natural." The audience can tell when the person appears stilted or fake. Being "natural" doesn't mean forgetting the seriousness of your role. Better advice is: "Be your organization. Act like your organization." Every organization has an identity. A spokesperson should try to embody that identity. For example, CDC exists to make people safer and healthier. Conveying that message is important.

While there are differing opinions on what makes a good crisis spokesperson, most experts agree on these basic principles:[4,5]

- Have a crisis communication spokesperson(s) identified and a plan in place before the crisis.
- Make sure the spokesperson is visible, via the media, as soon as the crisis occurs. Have that spokesperson explain who is in charge, and that the person in charge is concerned about the victims. It is important to demonstrate compassion and empathy from the beginning.
- Be transparent. Provide candid, accurate information, including being open to what is known and what is unknown about the crisis.
- Don't speculate, assume, or make premature promises that may have to be reversed later.
- Meet the needs of the media, including being accessible and providing regular updates about the crisis.
- Present a unified message, whether it is among spokespersons of one organization or across several organizations that are coordinating a crisis response.

The spokesperson should communicate facts and information about the crisis, including what is being done. It is also important to communicate caring, compassion, and empathy to create public goodwill and maintain a positive reputation for your organization.

A spokesperson must be perceived as trustworthy and credible.[6] Research shows that there are five basic elements to establishing trust and credibility through communication.[7,8] All messages, written or spoken, can incorporate these elements, especially when attempting to communicate during an emergency:

- **Empathy and caring:** Share your care and concern for what others are going through in a crisis. This will increase the likelihood that the audience will listen to and act upon your message.
- **Competence and expertise:** Education, position, and title help establish competence and expertise; additionally, previous experience in dealing with similar situations will enhance the perception of competence.
- **Honesty and openness:** Give people enough information and choices to make appropriate decisions so they feel empowered in the emergency. If you do not know the information, then tell the audience why and explain that you are notifying partners, verifying information, and taking similar actions that will help you acquire more information.
- **Commitment and dedication:** State the organization's goal for the crisis response. Show dedication by

"The minute I put my foot on the ground in New Orleans was to make it known to everybody in the community down there that I was there, there was a federal leader that had moved forward, there was a face of the response on scene, and that I was accountable. "

RADM Thad Allen, Retired,
Former Commandant,
United States Coast Guard

communicating regular follow-ups that report on the progress, including successes and challenges of the recovery process. However, don't promise what can't be delivered. Explain the limitations of the situation and express that everything is being done to keep the response on track.

- **Accountability:** Keeping promises and being accountable for the decisions made are vital for maintaining public trust and credibility in the organization throughout the response and recovery process.

A spokesperson should work very closely with the public information officer (PIO) to develop messages, gather facts, and determine what information can be released at any given time. Identify a time when your spokesperson will be available to meet with the media or the public. Determine what mechanism, such as a press briefing, media interview, or interactive webcast, he or she will use. The media and the public will feel reassured when they know when they will receive more information. This includes following up on issues.

Spokespersons must know the organization's policies about the clearance process and release of information. They must do the following:

- Understand the scope of responsibilities.
- Limit comments to only the emergency response event.
- Avoid answering questions that are outside the organization's responsibility for the response.

Spokespersons are often involved in give and take with members of the public or the media. They may be challenged and asked for specific information. The question may be about controversial issues or they may be asked for information that cannot yet be released. Even in these situations, it is important to avoid spin. Tell the truth and be open. Explain why the question cannot be answered.

The effectiveness of a spokesperson's communication is enhanced with the use of visual aids, illustrations, examples, stories, and analogies. Ensure that they help make the point and do not minimize or exaggerate the message. Visual aids, such as charts, maps, and models, can be helpful in communicating some kinds of information. They are particularly useful in describing a process or showing the relationship between factors.

A spokesperson's presentation should be reviewed and rehearsed. Review visual aids before using them publicly. Practice telling stories and examples on others within the organization before telling them publicly. It is particularly important to carefully rehearse and review responses to anticipated questions along with possible follow-up questions.

Spokesperson Pitfalls (and How to Avoid Them) During an Emergency

- **Limit jargon and acronyms:** Jargon impedes communication and may imply arrogance. Acronyms are particularly common with government agencies, but their use may alienate lay audiences. Jargon and acronyms are often used to signal that people have inside knowledge or are members of a technical group. As such, they can interfere with efforts to build audience rapport. If using a technical term or acronym is necessary, define it.
- **Tailor messages to an easy level of comprehension:** Use simple short sentences and avoid technical vocabulary.
- **Use humor with caution:** Humor is a minefield during a crisis. Soft, self-deprecating humor may be disarming for a hostile audience, but, in general, efforts to be funny during a crisis are likely to be misinterpreted.
- **Refute negative allegations without repeating them:** Repeating any message enhances its impact. If your speaker repeats a negative accusation, it is then part of the formal message. Use positive or neutral terms.
- **Gather feedback:** Don't assume that the point is understood; rather, ask whether the message has been clear and is understood. Getting feedback, and listening to it, is important in helping to ensure effective communication.
- **Avoid one-liners, clichés, and off-the-cuff comments:** Any statement that trivializes the experience by saying something like, "There are no guarantees in life," reduces your credibility and rapport.

In general, comments should be limited to what is known. Keep personal opinions to a minimum. Spokesperson messages can be tailored to the situation and the stage of the crisis. For example, money will become an issue at some point, but during the early stage of an emergency, messages about money should be avoided.

Working with the Media

During a crisis the media can consume your time, but they are necessary. They are the best mechanism for reaching your audience. The media are especially important during the first hours or days of an emergency. Social media,[9] such as Twitter and Facebook, are increasingly important, and a very fast form of communication. However, the mainstream media, particularly television and radio, still have the widest distribution.[7] In some cases, traditional media will be the best way to reach many parts of the public during an emergency. Media professionals generally accept their community and professional responsibilities, particularly during a crisis. However, the job of a journalist is not the same as a PIO. The differences must be respected.

General Media Interview Goals

- Have a clear purpose for your interview. Identify core messages to deliver during the interview. Seek opportunities to repeat or restate the core message. If key messages have not been developed, then it may not be the right time for an interview.
- Make sure the reporter gets the correct name of the person being interviewed. Titles should be kept as short as possible. Use titles that describe the job rather than titles that reflect the title of an official position. For example, saying "medical epidemiologist" is better than saying "acting chief of the 'so and so' section of the 'such and such' branch."
- Come to the interview with supporting papers that can be given to a reporter after the interview. This is a resource that can be used as a way of confirming information and helps the reporter with your facts.

General Media Interview Pitfalls

- Don't let reporters put words in your mouth. The reporter may use inflammatory or emotional words. Avoid repeating them with the journalist; use your own words.
- If the question contains leading or loaded language, reframe the question to eliminate the language and then answer. Sometimes it's helpful to restate the question in neutral terms.
- If the reporter claims someone has lodged an allegation, don't assume he or she is correct. Don't react to new information a reporter presents. Instead, you can say, "I have not heard that" or "I would have to verify that before I can respond."
- If a reporter holds a microphone in front of you after you've answered the question, resist the temptation to add information. Do not answer the question again or add to your answer. Instead say, "That was my answer. Do you have another question for me to address?" Say it matter-of-factly, without sarcasm or annoyance.
- Understand there is no such thing as "off the record." Background and deep background do not mean you or your spokesperson won't be quoted or identified. Do not say anything before, during, or at the conclusion of an interview that you are not prepared to see in print the next day or uploaded to social media in the next hour. The interview is not over until the reporter and all equipment have left.

> *"First of all, only do what you are comfortable doing, talk about what your subject matter expertise is. Don't stretch. Don't think or provide an opinion on things you don't know about."*
>
> *RADM Thad Allen, Retired,*
> *Former Commandant,*
> *United States Coast Guard*

- Anticipate questions. Work with PIOs to come up with expected questions and draft answers. Nuances count. A word change here or there may make the difference in how well an answer is received. Put the answer on paper because it will usually be too long to give in public, and then find the bottom line. What is the key point? What rings true and doesn't sound evasive? Make that core message the 30-second answer.

- Make the key point first and have prepared supporting message points. Try to say the key point in 30 seconds and in fewer than 90 words.
- Don't pretend to have answers. If the specific piece of information is not yet available, say so. "I don't know" or "That's not my area of expertise" is an appropriate answer, if followed by a commitment to find the answer.
- Don't fight your battles through the media. When talking with the media don't assign blame. Never speak disparagingly of anyone, not even in jest. Avoid critiques of other agencies or other responses. Reporters can be reminded that professionals differ in their opinions, but then get back on topic. Comments should be focused on what you know and what your organization is doing.
- Avoid being caught in hypothetical questions. Reframe the question in a way that addresses legitimate concerns of the public without being sensational or offering speculation for entertainment.
- Record sensitive interviews on audio or video. Be sure the reporter knows the interview is being recorded and make a copy available. Consider posting interviews or press statements on your website.
- Do not ask reporters to agree to let you review their articles or interviews. Instead, offer to clarify information for them as they prepare their story. If a reporter shows you the piece, understand that he or she expects you to correct errors in fact, not viewpoints that may differ from yours.
- Break down multiple-part questions and answer each part separately.
- Don't raise issues you do not want to see on the Web, in print, or on the news.
- Don't respond with "no comment" to a reporter's question. Instead, state why you can't answer that question. Say that the matter is under investigation, the organization has not yet made a decision, or simply that you may not be the appropriate person to answer that question.

Media Briefing or Press Conference Tips

- Determine in advance who will answer questions about specific topics. Consider having various experts available during the briefing as part of the team.
- Keep answers short, focused, and organized. They should be no longer than 2 minutes.
- Realize that some press briefings may be conducted via a podcast or interactive webcast. Practice one briefing using these technologies so you are comfortable with how they function.
- Assume every microphone is live—all the time—including wireless clip-on microphones. Assume that cell phone cameras and recorders are continuously capturing what you are saying and doing for sites such as YouTube.

In-Person Interview Tips

- Know who will be conducting the interview. Learn which reporters will be there and the news outlets they represent.
- Know the subjects the reporter wants to cover and limit the interview to those subjects. If the reporter goes off in another direction, indicate that you are not the right person to answer that question at this time.
- Know the format and duration of the interview. Be willing to set limits so there is a clear end time. Keep the interview short in duration and focus on what is important. Consider scheduling a follow-up interview, if required.
- Ask who else will be interviewed or has been interviewed about the subject.
- Ask when the interview will be available and where. If that is not yet known, ask to be notified when the decision has been made.

Do not do the following:

- Try to embarrass or argue with a reporter.
- Tell the news organization which reporter is preferred.
- Demand that remarks not be edited.
- Insist that an adversary or critic not be interviewed.
- Distort, color, or spin the truth.
- Demand that an answer or quote not be used.
- State that what you are about to say is off the record or not attributable to you.

Telephone Interview Tips

- Ask the name and affiliation of the person with whom you are talking.
- Ask if the interview is being recorded.
- Ask when and where the information will be used.
- Obtain the reporter's phone number and e-mail before the interview begins. You may wish to ask to call the reporter back to verify that they are indeed who they claim. You may also need to call back if the call is interrupted or if you need to provide updated information.
- Spell out difficult names, technical terms, and phrases.

By participating in a telephone interview, while limiting its length, you have met your obligation to answer important questions. Bear the following in mind:

- Don't do the reporter's homework. You do not have an obligation to explore every facet of the incident.
- Recommend reporters review Web-based or print materials to save time.
- Schedule the interview in a quiet room.
- Don't allow distractions such as cell phones. Ask that they be turned off.
- Consider standing up; it strengthens your voice and makes you sound more alert.
- Keep written versions of key messages at hand. Repeat those often so reporters know they are the most relevant points.
- Ask reporters for feedback to ensure they understand your key points.

Special Considerations for Television and Radio Interviews

Radio, television, and Web-based media are much more immediate and thus are more prominent in the early stages of a crisis. Television reporters may be more likely to try to elicit dramatic or sensational responses. Because these interviews are usually recorded, they may end up being aired repeatedly. Most television news outlets post entire unedited interviews on their websites.

Radio interviews, either recorded onsite or over telephone, are immediate and may be aired quickly. They, too, may appear later on a website. Interview styles should be adjusted accordingly. Review the following list for tips:

- Take the time to prepare for a television interview:
  - Rather than memorizing answers, which tends to come off as rote, the spokesperson should thoroughly learn the ideas, facts, and anecdotes that apply to the interview topic. These can be discussed easily and naturally during the interview.
  - As with all interviews, the PIO should help the spokesperson practice answering questions, especially aggressive, rapid-fire questions. Practice reduces anxiety and will result in a more relaxed and natural delivery.
  - Practice answering questions in 10- to 20-second phrases. If a question calls for a longer answer, pause every 20 seconds. This will make it easier for the host to break in for a commercial interruption or to edit materials.
  - Rehearse stopping after you are directed to stop; hard breaks in midsentence for a commercial look unprofessional and desperate.

- Slow down. Microphones and nerves tend to make people talk faster. Slow down and deliberately pause between sentences to force a more relaxed and conversational pace.
- Avoid monotone. Practice raising and lowering the pitch of your voice. Change the inflection and add emphasis through vocal variety. The vocal volume should be kept conversational. Natural animation, gestures, and facial expressions help increase credibility.

Handling Techniques Sometimes used by Television and Radio Interviewers

Most journalists are professional and respectful of the interview process. Sometimes a novice reporter or someone seeking more controversy will use techniques designed to throw the interviewee off message.[10,11] It's important to be prepared for these techniques. Sensational or unrelated questions may be inserted into interviews. In these cases, do the following:

- Answer the question in as few words as possible. Don't repeat the sensational elements.
- Return to the key messages. Recommended verbal bridges back to the key message may include the following:
  - "What I think you are really asking is …"
  - "The overall issue is …"
  - "What's important to remember is…"
  - "It's our policy not to discuss this issue, but what I can tell you is …"
  - "What I'm really here to discuss …"
  - "Your readers/viewers really need to know …"
- Character attacks may be part of interviews. Don't argue or confront an adversary during an interview. Question the science, facts, or issues, but not someone's character. For example, use a phrase like, "I can't speak for Dr. X. You'll have to ask her, but what I can address is..."
- Machine-gun questioning is a technique where a reporter fires rapid questions. Pacing is quick and the reporter interrupts your response. The most appropriate response is to use a phrase like the following:
  - "Please let me answer this question"
  - "I would like to answer those questions one at a time."

  Control the pace. Take the time necessary to think before responding.

- Watch for microphone feeding and pausing. This technique is used to generate a longer response. Perhaps you've given a complete answer on a controversial issue; then the reporter pauses and cameras continue to roll. Reporters are hoping to get a longer response. If this happens, do the following:
  - Stay on your agenda.
  - Be aware of nonverbal cues like a deer-in-the-headlights look or fidgeting.
  - Relax and let the reporter fill dead air time. Dead air doesn't make exciting viewing unless you react with an action or expression. Dead air time will be edited out.
- Remember that your microphone is always on—always—including during testing and sound checks, and after the interview is officially over.
- Be aware of sensational questions with an A or B dilemma. Use positive words to reject the dilemma and correct the inaccuracies without repeating the negative. Reject both A and B if neither is valid. Explain, "There's actually another alternative you may not have considered" and give your message point.
- Surprise props may be introduced. The reporter may attempt to hand the interviewee a report or supposedly contaminated item. Don't take it. If you take it, you own it. React by saying, "I'm familiar with that report, and what I can say is…" or "Obviously, I haven't had time to review this report, but what is important is…" and then go to your key message.

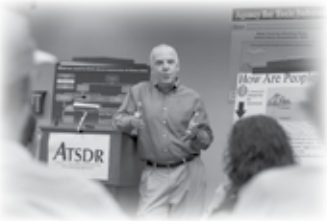
Radio Interviews

Radio is an important crisis communication medium because it is immediate and portable. Reporters often use small handheld recorders and wireless technology to file their stories. In other cases, radio interviews are done over the telephone.

Live is different from prerecorded. Find out if the interview is live, live to tape, or taped. If the interview is live, determine whether callers will be permitted to ask questions. It is challenging to provide useful answers to questions from individual citizens during a crisis interview. That is usually not an effective means to provide information.

Radio interviews include unique features. The following list provides important radio tips:

- Speak in normal tones with a conversational style of speaking.
- Avoid using vocalized pauses such as "uh," "um," and "you know." Do not feel a responsibility to fill air time. Take the time necessary to form your thoughts before answering questions.
- Use notes but be aware of the rustle of papers.
- Know that radio interviews will probably not be as in-depth as print interviews. Keep key messages succinct.



- Avoid lengthy scientific explanations. As with television, the radio audience has limited scientific background. Take on your audience's point of view and speak to their level of understanding.
- Be aware that reporters may ask the same question multiple times in an attempt to elicit a different answer or to get an answer that is more concise. Avoid beginning an answer with a phrase like "As I said before…" because the actual audience for this interview will not have heard your previous answer of the same question.
- Understand that radio is more informal and spontaneous than television. Radio is more community-based and reporters are likely to ask more questions from the community's perspective.

Television Interviews

Television is a visual medium; consider your physical presentation.[12] This includes dress, gestures, and facial expressions. While some people are more natural and comfortable on television, preparation can help improve effectiveness.[7]

- Avoid broad unnatural gestures or moving around in the chair. Ask for a chair that does not swivel.
- Don't look at yourself on the TV monitor. It is distracting to the viewer.
- Look at the reporter, not the camera, unless directed otherwise.
- When wearing an earphone, ensure that it fits securely and that you know what to do if it pops out of your ear. Ask the producer or sound technician for help if needed.
- Sit comfortably upright with a straight posture.
- In taped interviews, ask to repeat your response if you believe the first attempt was not the best. In live interviews, correct misstatements as quickly as possible.

What to Wear on Television

Clothing selection is an important consideration, particularly in televised situations, and should be appropriate to the specific situation. For example, if you're in a field situation, a suit may not be appropriate. Do not wear medical clothes or a lab coat unless you would be logically wearing them for your job. Jackets with the agency name or logo may be appropriate.

- **For men, consider the following appearance tips:**
  - Avoid patterned suits and neckties, stripes, and checks. The camera will make them wavy and distracting to the viewer. Neckties should be somber and professional. Avoid novelty ties.
  - Button suit coats. If possible, sit on your coattails to avoid bunching around your neck and shoulders. Light blue or gray suits are most camera-friendly. In an emergency, it is most appropriate to look conservative, not stylish or flashy.

- Wear white shirts to be the most conservative.
- Wear socks that are darker than the suit. They should be knee-length. Because your pant legs may creep up, wear long socks to prevent your ankles from showing.
- Make sure you hair is neatly trimmed and groomed to convey professionalism. When possible, be clean-shaven.

- **For women, consider the following appearance tips:**
  - Wear tailored, professional clothes to convey credibility.
  - Plan neutral colors and muted patterns for a camera-friendly look. Most set backdrops are blue or purple. Take along a contrasting shawl or scarf to ensure that you do not blend into the background if your suit matches the set color.
  - Wear dark shoes.
  - Do not wear distracting or shiny jewelry or accessories that jangle or need adjusting.
  - Wear daytime, conservative makeup. Avoid bright fingernail polish.

- **For men and women, consider the following appearance tips:**
  - Ask for powder if your skin is shiny under the lights. Bald men should powder the tops of their heads.
  - Take off glasses if you can do so without squinting. If you must wear them, consider getting antiglare glasses. Avoid tinted lenses or sunglasses during a television interview. If the light hurts your eyes, ask that it be adjusted. Eye contact is important in establishing credibility.

Spokespersons in Public Meetings

You or your spokespersons may have to speak at public meetings. This may include a variety of audiences, such as community members, people who are affected by the crisis, elected officials, first responders, and members of the media. Public meetings may be accompanied by especially high levels of emotion and create unique demands.

When Emotions and Accusations Run High During an Emergency Public Meeting

Crises often create heightened emotional responses. The following basic circumstances are more likely to increase angry responses:

- When people have been hurt
- When they feel threatened by risks not of their own making
- When they feel their fundamental beliefs are being challenged

- When people feel weak in the face of others who are more powerful
- When they feel like they haven't been treated fairly or with respect
- When people feel manipulated, ignored, or trivialized

If conducted in an insensitive manner, public meetings may increase dissention and outrage.[4] The following approaches may help you or your spokesperson soothe these emotions and help the community work toward a mutually agreeable solution:

- **Don't lose your temper:** Public health and safety personnel see themselves as the good guys. It hurts when intentions, abilities, and expertise are criticized. Consider the following points to keep operations calm and focused:
  - Set aside your own anger or defensiveness.
  - Strive to understand. Often the anger being expressed by others is a result of an overwhelming sense of helplessness.
  - Show empathy.
  - In cases where extreme emotion might be expected, ask for ground rules outlined by a neutral third party.
  - Acknowledge the anger up front. Explain what might be accomplished in the public meeting. If communication deteriorates, it may help to refer back to your meeting objectives.
- **Practice self-management to calm nerves in high-stress situations:** It can help to take deep breaths and give yourself mental reminders that criticism is not personal and that there is a greater purpose to the meeting. Consider the following tips to keep the meeting calm:
  - Anticipate criticism and attacks, and practice responding calmly.
  - Let the other person vent, without interruption, for a reasonable amount of time. This may help dissipate anger.
  - Pause before responding and acknowledge the emotion.
- **Let people talk:** The more people talk, the better the chance that they'll judge the meeting as successful:
  - Don't allow lectures by the spokesperson or the organizational experts.
  - Suggest ground rules to ensure order and allow those with opposing viewpoints an opportunity to be heard.
  - Offer equal time to dissenting views among those attending. This will help avoid a spiral of silence.

- **Engage in active listening:** Concentrate on what the person is saying, and listen for both feelings and content:
  - Resist forming an answer while listening to the response; it interferes with your understanding of what the other person is saying.
  - Let your audience know all concerns are being taken seriously and take time to frame your responses.
  - Avoid interrupting, but set limits. If a hostile speaker dominates, appeal to him or her. Explain that it is important to address the concerns of others in the room.
- **Ask questions:** Wait for their questions before you offer your solutions. You may be surprised to find out that the issues that matter to your audience are not the issues you expected. The key is not to offer solutions to problems, but to help the audience discover solutions.
- **Don't say "but." Instead, say "yes, and:**" Typically, people express their differences by prefacing their responses with "but." Listeners will be more receptive if you first acknowledge their views with a "yes" and then preface your view with an "and." Example: "Yes, we want to protect people's rights and we want to keep them alive to enjoy those rights."
- **Avoid saying "I know exactly how you feel:**" Instead, acknowledge the feeling and its legitimacy. Use statements like the following:
  - "I understand why you are angry"
  - "I understand your frustration and anyone in this circumstance would likely feel this way."
- **Respond appropriately but professionally to personal, unfair, or abusive comments:** A certain amount of anger and negative emotion directed at you is understandable. If it becomes personal you have a right to call such behavior inappropriate and ask the person to join with you in getting back to the issues. Try to signal to the audience when the conversation is no longer appropriate.
- **Look forward, not backward. Acknowledge past mistakes:** Use statements such as "I wish we had met with you sooner to hear these concerns." Then talk about where you want to go in resolving problems rather than where you have been. Avoid rehashing old issues. Encourage people to look forward.

Assessing Spokesperson Skills

In *Ongoing Crisis Communication*, W. Timothy Coombs describes tasks, knowledge, skills, and traits that are important for being an effective crisis spokesperson.[13]

Table 5–1. Spokesperson Media Task Analysis

Task Statement	Knowledge	Skills	Traits
Appear pleasant on camera	1. Understand the value of proper delivery	1. Strong Delivery	1. Low communication apprehension
Answer questions effectively	1. Understand danger of long pauses 2. Understand the steps to effective listening 3. Appreciate the danger of "no comment" statements 4. Understand the danger of arguing with reporters	1. Able to think quickly 2. Able to use the steps to effective listening 3. Able to use phrases other than "no comment" when an answer is not currently known 4. Able to stay calm under pressure	1. High stress tolerance 2. Communication competence 3. Low verbal aggressiveness
Present crisis information clearly	1. Appreciate the problems with jargon 2. Understand the need to structure responses	1. Able to avoid the use of jargon 2. Able to organize responses	

continued

Task Statement	Knowledge	Skills	Traits
Handle difficult questions	1. Understand the characteristics of tough questions	1. Able to identify tough questions 2. Able to ask for questions to be reworded 3. Able to preface tough questions in a tactful manner 4. Able to challenge incorrect information in a questions 5. Able to explain why a question cannot be answered 6. Able to evaluate the appropriateness of multiple-choice responses in a question 7. Able to respond to questions with multiple parts	1. Low argumentativeness
Establishes credibility	1. Answers questions effectively 2. Demonstrates subject matter expertise and/or disaster management expertise 3. Is honest and frank	1. Remains calm 2. Reflects the appropriate level of concern 3. Projects an atmosphere of stability	1. Communication Assertiveness
Improves over time	1. Understands the importance of feedback	1. Ability to receive feedback 2. Seeks out advice and constructive criticism	1. Self reflexive 2. Flexible and adaptive

*Adapted and reprinted with permission from W. Timothy Coombs.

Task statements are items that you or your spokesperson should accomplish when speaking as a representative of the organization. While looking pleasant on camera is necessary, answering questions effectively, presenting information clearly, and handling difficult questions is what brings success. He or she must also establish rapport and credibility with the audience.

These tasks are enhanced by knowledge of the communication process and technical expertise, such as experience handling disasters or specific subject matter knowledge. Often, credibility emerges from the communication situation itself. As a spokesperson demonstrates knowledge and skill, he or she is accepted as credible by the audience.

Specific communication skills, verbal and nonverbal, are critical in being a strong spokesperson:

- Maintain eye contact and be aware of facial expressions. A frown or grimace at the wrong time can create a very negative image.
- Avoid leaning on the lectern and maintain good posture, even if exhausted.
- Spokespersons should have strong voices, articulate clearly, and be able to speak in a relaxed conversational tone, even in stressful situations.
- Express emotions, but be careful about extremes.

Finally, there are specific communication traits that characterize effective crisis spokespersons:

- They typically have low communication apprehension and do not exhibit stress or become overly nervous when speaking to audiences.
- They are able to tolerate and manage high levels of stress and uncertainty, and generally have low verbal aggressiveness and argumentativeness.
- Effective spokespersons generally remain calm even in complex and chaotic situations.

The spokesperson role is critical to effective crisis communication. The most effective spokespersons are able to recognize where improvement is needed and work closely with communication staff to improve their skills. This may involve watching tapes of press conferences and participating in media training. They should be able to receive and act upon feedback and constructive criticism. Effective crisis spokespersons also realize that they are part of the communication team and rely on the team to communicate during the stress and uncertainty of a crisis.

Conclusion

Organizational spokespersons have pivotal roles in crisis and emergency risk communication. They are the face of the organization and humanize the crisis message. The role of spokesperson is challenging and stressful. It requires careful preparation and sensitivity to the communication process and the needs of the audiences. Credible, empathetic, and composed spokespersons are very valuable communication resources during a crisis. A skilled spokesperson can make communicating during a crisis much more efficient and effective.

Pocketcard 5–1. You're the Spokesperson—What You Need to Know

CRISIS + EMERGENCY RISK COMMUNICATION

Build Trust and Credibility by Expressing:

- Empathy and caring
- Competence and expertise
- Honesty and openness
- Commitment and dedication

Top Tips:

- Don't over-reassure.
- Acknowledge uncertainty.
- Express wishes ("I wish I had answers").
- Explain the process in place to find answers.
- Acknowledge people's fear.
- Give people things to do.
- Ask more of people (share risk).

As a Spokesperson:

- Know your organization's policies.
- Stay within the scope of responsibilities.
- Tell the truth. Be transparent.
- Embody your agency's identify.

BE FIRST. BE RIGHT. BE CREDIBLE.

Prepare to Answer These Questions:

- Are my family and I safe?
- What can I do to protect myself and my family?
- Who is in charge here?
- What can we expect?
- Why did this happen?
- Were you forewarned?
- Why wasn't this prevented?
- What else can go wrong?
- When did you begin working on this?
- What does this information mean?

Stay on Message:

- "What's important is to remember…"
- "I can't answer that question, but I can tell you…"
- "Before I forget, I want to tell your viewers…"
- "Let me put that in perspective…"

CONSISTENT MESSAGES ARE VITAL

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CRISIS EMERGENCY RISK COMMUNICATION

2012 EDITION

Chapter 6: Working with the Media

Chapter 6: Working with the Media

This chapter will review the following:

- The media's role in a crisis, disaster, or emergency
- Interacting with the media
- Facilitating positive media relationships
- Giving reporters what they need
- Getting emergency information to the media
- Writing for the media during a crisis
- Meeting media needs throughout an emergency
- Responding to media regarding significant errors, myths and misperceptions

Understanding the Media's Role in Disasters

Disasters are major media events. Public health emergencies will engage the media, especially if an emergency is exotic, catastrophic, or the first of its kind. The media are a constant presence in our lives and play a critical role in informing the public during any crisis or disaster. It's natural for those responding to a public health emergency to think of the media as a bother and distraction, but a better understanding of their role in an emergency will improve the relationship.

For example, if a public health emergency involves the intentional release of infectious or chemical agents, the media will spin into high gear. Because of its inherent threat, an act of bioterrorism is guaranteed to receive media attention. The public is always anxious to learn about the resolution of the health crisis and subsequent criminal investigations and will often turn to the media for this information.

The mainstream media, those media organizations that are well-known and established, have changed greatly since 2000. Many media organizations have contracted their services or merged with other organizations.[1] Audiences for print and television network news are smaller and older. Many younger people rely on Web-based news sources. Much of Web-based content

"The media can assist in pre-disaster education. They may be crucial to an effective warning process. They can provide information and advice to victims and others in the wake of disasters. They can help activate the local disaster response. The can assist in stimulating effective disaster relief."

Joseph Scanlon,
Suzane Alldred,
Al Farrell, and
Angela Prawzick,
Coping with the Media in Disasters: Some Predictable Problems,
Public Administration Review, 1985

is driven by the mainstream media and many audiences still rely on traditional media such as print, television, and radio, as their primary news sources.[2] Media audiences are increasingly fragmented. No single source of information can be expected to reach everyone. In fact, there are some people who do not regularly read, watch, or listen to much news from any sources.

The Media's Role in a Crisis, Disaster, or Emergency

Most of us are familiar with the Emergency Broadcasting System. It was created in 1963 as a way to use public broadcast channels to alert the public of an immediate threat. In 1997, it was renamed the Emergency Alert System. This system alerts the public by doing the following:

- Telling the public something is happening and that they need to pay attention to receive additional information
- Directing the public to sources of additional information they can use to protect themselves from a potential risk

The Integrated Public Alert Warning System (IPAWS) aims to combine the country's public warning systems, including EAS, Commercial Mobile Alert System (CMAS), and National Oceanographic and Atmospheric Administration (NOAA) Weather Radio All Hazards.[3] CMAS uses cellular mobile device technology to deliver alerts directly to the public. While CMAS and related text alert systems will become increasingly important, the traditional media will continue to play a critical role as a source for information following an alert.

The media continue to serve as an important emergency information system during a crisis and they do this very well. Professional media representatives that recognize their role in public safety serve communities around the nation.

Because of their immediacy, television and radio are particularly important in crises that develop quickly. Radio is very resilient and flexible. In many cases, local stations have switched format to provide 24-hour coverage of an event, including call-ins. In other cases, radio stations have linked up with social media and Web systems like Google Maps to provide robust, real-time disaster information services.[4,5,6] In the past, organizations had 24 hours to get information to media outlets. Now, media outlets can provide immediate and continuous updates on a crisis through contributions from people experiencing the crisis. These contributors provide information by calling in on cell phones and sending information, such as pictures, video, and updates on social media sites like Twitter and Facebook. This has increased the demand on organizations to keep pace with information delivery. This is done by using both traditional media and social media channels to provide information and updates on the crisis response both immediately and continuously.

In a democracy, the media also serve as a watchdog. This means they report on the activities of public institutions and government, informing the public so that officials can be held accountable. During a crisis, this may translate into investigative reporting about the following issues:

- Cause
- Blame
- Responsibility
- Adequacy of the response

Typically, investigative reporting takes a back seat during early stages of a crisis. But, at some point reporters will ask more challenging and probing questions. The media generally work according to emerging and somewhat informal agendas. This means current issues will be covered and related stories will likely follow. For example, during the 2011 radiological incident in Fukushima, Japan, reporters began looking at the general topic of nuclear safety. They then reported on the safety of U.S. facilities.[7] Similarly, influenza season or tornado season will result in a series of related articles.

Journalists have a responsibility to report information they believe is honest and objective. Public health and emergency management professionals sometimes expect the media to report in way that supports official goals. However, the media are not an adjunct to public emergency response organizations. They have their own place in a free society and their own commitment to the public. Emergency management planners should acknowledge the media's role in a crisis and plan to meet reasonable media requests. Few reporters, editors, directors, or producers will abandon their efforts to obtain information and provide perspective on a crisis just because you don't want them involved.

It's imperative that emergency operation centers (EOCs) and all government and nongovernmental organizations involved in crisis response understand the appropriate needs of the media and how to fulfill those needs as an ongoing and well thought-out part of the response plan. This approach deliberately includes the media in the response.

Can you imagine emergency response if the media were not involved? The absence of mass media would make it nearly impossible for the EOC and public officials to communicate the nature of the crisis and the appropriate actions citizens should take to limit their harm. You may find your response team in trucks with bullhorns moving through neighborhoods, telling people where to find shelter or not to drink the water from their faucets without purifying it. However, for many public health emergencies, such as those involving infectious disease outbreaks, the community infrastructure will be in place, electricity will continue to flow, buildings will stand, and roads will be clear. In these circumstances, traditional media outlets will quickly communicate important information to the public. Even with the advent of social media, most people will still want to confirm information through television and radio.

Interacting with the Media

It is important to understand that reporters will not allow you to simply feed them headlines without asking questions. They will decide what to tell their viewers or listeners about what is occurring. Don't treat them like members of your staff. Offer suggestions, but do not dictate. This will help you establish a cooperative relationship.

Reality Check

Reporters may seem sensitive to your needs and requirements. You may think reporters are eager to print only positive news about your organization or agency. The reality is that reporters have an obligation to report the facts objectively, even if they feel those facts are contrary to your organization's goals. When an issue has national significance, reporters will probably show some distance:

- Reporters have a job to do, and they will do what it takes to get it done.
- The relationship between reporters and public health communicators will be more serious.
- No favors should be expected from either side.

As a crisis unfolds, expect a widening gap between what emergency managers believe the media should cover (or not) and what reporters want to know. You should do the following:

- Remember that it is the journalist's job to provide balance by looking for alternative perspectives and interpretations of events, and ensuring that other points of view receive coverage.
- Make your points clearly and consistently. Keep it easy for journalists to do their jobs. This enhances the effectiveness of communication during a crisis.
- If the media present incorrect information, especially if it could be harmful to the public, you should quickly communicate correct information to the public and the media.
- Expect only limited success in influencing that part of the crisis coverage devoted to debate, discussion, and speculation. This is especially true in the 24-hour news arena.
- Remember that emergency managers and reporters or commentators see stories from different angles. What seem like facts to you might seem less black-and-white to reporters and commentators.

The Poynter Institute for Journalism provides useful advice for journalists covering disasters.[8] Poynter emphasizes that reporters are often unprepared to cover events with complex scientific issues. They explain that acquiring background information is important to getting the story right. Journalists should

be aware that they are often putting themselves in harm's way when covering a disaster.[9] A media organization may also be affected by the disaster. This means its ability to function may be impaired at the very moment the public most needs timely, accurate information. The Poynter Institute offers five tips for journalists covering disasters:

1. Be more tolerant of uncertainty inherent to a disaster.
2. Find out who is really in charge.
3. Dig for deeper context to the story.
4. Look for takeaways, including lessons learned.
5. Find evidence to support anecdotes and critically assess the evidence.

Facilitating Positive Media Relationships

Equal Access Matters

In the first critical hours or days of an emergency, fairness is of utmost importance. The most ethical way for a public agency to facilitate media relationships is to provide all media outlets with the same access at the same time. Through the use of good planning with prearranged e-mail addresses, fax numbers, and onsite media opportunities, you can maintain fairness.

Don't ignore the parameters of the journalist's job; they have space and time to fill, and deadlines to meet. One way to destroy effective professional relationships with the media is to ignore their needs. It is imperative that you provide equal access to information and help journalists acquire that information:

- Distribute messages that are essential to the well-being or safety of the public equally.
- Use teleconferencing so reporters in remote locations can participate.
- Attempt to give journalists a reasonable time frame in which new information will be provided.
- Establish a schedule for information releases. Everyone involved will appreciate some ground rules. Base ground rules on the type and phase of the crisis.
- Understand journalism deadlines and work to accommodate them. During a crisis, it is important to be available—if necessary, around the clock—to help reporters get the facts right, before their deadline.

Even print media outlets face short deadlines because of their online Web editions. In the past, response to media inquiries could be prioritized by their deadlines. Today, most media outlets have the same deadlines, and this requires a revamping of the way emergency information is provided. In general, media outlets function in real time or close to it.

Reality Check

More than 40,000 media outlets[10] operate news activities in the U.S., and many of them are interested in breaking news, as well as health and medical news:

- Providing equal access to information may mean posting the information on your organization's Web page, rather than waiting several hours.
- Equal access means not discriminating between the local network affiliates and local independent TV stations.
- Equal access means including newspapers, television, and radio stations.

Make a reasonable effort to include as many local media outlets as possible in your media opportunities. Discuss credentialing of media outlets during the pre-crisis phase or early during the response to provide access to your EOC media room.

Think Local Media First

Don't ignore local media in favor of the national media and well-known reporters. National media reporters have contacts outside the local area to fill in much of what they need. They won't be shortchanged. Local media personnel count on local response officials to work with them. Local PIOs should think local first. At the state level, regional media or border media may take priority. At the national level, the primary contacts may be from the national media.

International media may also become involved. Responders working at the federal level are more likely to be contacted by international reporters. Certain events, such as an infectious disease outbreak, have the potential to directly affect people in other countries. Other events, such as a powerful hurricane, may be confined to one country but still cause significant damage and loss of life. This will spur the interest of international media even though other countries were not affected. You will need to prioritize international media, based on the nature of the event, the degree of international interest, and the extent to which other countries are affected.

The key is to have consistent information flowing back and forth among local, state, regional, national, and international levels. If the content of the message is consistent, it is possible to fulfill the needs of reporters at all levels.

During the 2009 H1N1 influenza outbreak, information at the local, state, and national levels was consistent. This happened, in part, because CDC in Atlanta was very open in making information available, not only to media at all levels, but also to public health partners. Because the outbreak was global, reporting was occurring at the international level. The international information flow was not coordinated as well, which created inconsistent reports in the international media.[11]

Reality Check

Americans have been exposed to exaggerations of the occurrence of harmful behavior following disasters, such as:

- Panic
- Looting
- Price gouging
- Scope-of-disaster estimates

Excessive media coverage of these negative incidents, or the possibility of such incidents, may lead the public to believe that these behaviors occur at a much higher rate than they actually do. Coverage analysis for Hurricane Katrina found that while national newspapers were more likely to report rumors, local and regional newspapers appeared to be more deliberate in not reporting rumors and not publishing sensational photos of the disaster.[12]

Giving Reporters What They Need

What Do Reporters Want?

Reporters want and need the following:

- Timely answers to their questions
- Access to experts
- Visuals to support their news stories

These needs are the same in an emergency, only the time pressure is much greater. When a story is seen as "breaking news," time becomes paramount. Anticipating questions from the media can help you prepare and respond. The most common media questions in an emergency include:

- "What is happening now?"
- "Who is in charge?"
- "Are those who got hurt getting help and, if so, how?"
- "Is the crisis contained?"
- "What can we expect to happen?"
- "What should people do or not do?"
- "Why did this happen?" (Don't speculate. Repeat the facts of the event, describe the data collection effort, and describe treatment from fact sheets.)

- "Did you have any warning this might happen?"
- "Why wasn't this kept from happening (again)?"
- "What else can go wrong?"
- "When did you begin working on this (e.g., when were you notified of this situation, or when did you determine this to be true…)?"
- "What do these data/information/results mean?"
- "What bad things aren't you telling us?" (Don't forget the good.)

The more you anticipate what the media needs, the more effective you will be at the following:

- Informing the public
- Helping them understand public health actions or recommendations
- Gaining public acceptance for public health activities during response and recovery

Background information will give you a head start. This is the information that will not change during a crisis. For example, if an outbreak involves an organism that is not a new form, its description, incubation period, and methods of treatment will stay the same. It is easily retrievable, as CDC and other federal agencies have developed much of the background information reporters need.

Media Operations in a Crisis

Public health emergencies change how an agency conducts daily business. This is true for the media as well. Media outlets have their own plans to cover major breaking news, and knowing those plans helps get the right message out.

During nonemergency times, EOC managers should invite local media into the emergency operations center to explain how things work, the agencies that will be involved in the response, and how media will be accommodated when the EOC is operating. If possible, there should be a designated media room located near the command center. This could be used for media opportunities and, when agreed to, for individual interviews. It's imperative that the EOC or the public health department leading the response remain ready for journalists.

Keeping the media updated with accurate information reduces speculation and rumors.

The media onslaught could start in a matter of minutes, depending on the type of emergency. Natural public curiosity, the need to fill 24-hour news cycles, and pressure to beat the competition drive the media to thoroughly cover the event. Media are most apt to exert pressure as a group. They are all looking for answers to the same questions at the same time. If official channels cannot meet the media's needs, experts and outside authorities will almost instantly be speculating to the media about what officials are or should be doing.

This speculation feeds rumors that require corrections. Keeping the media updated with accurate information reduces speculation and rumors.

During an unfolding emergency, media may not react as they usually do. Expect the following:

- **Diminished information verification:** Tentative, or even incorrect, information will be broadcast without the usual confirmation from multiple sources.
- **Diminished adversarial role:** Journalists are people too. They will have genuine concerns about what is occurring. They will want to help by providing important messages to the public. Don't expect the media to continue this throughout the entire crisis. In the beginning, however, the "them" versus "us" ratio diminishes.
- **The national media might dominate:** For major crises, most people will be getting their news from the national media. Local media will be feeding information to the national media, as stations compete for coverage. Messages meant for local audiences will have to vie for airtime with national coverage. Respect local media deadlines. Keep information flowing to help disseminate local public health messages.
- **An EOC or JIC for consolidated information is expected for some crises:** Initially, the media will accept that much of their information must come from the command post. Within hours or days, depending on the crisis, the media will look for other perspectives and places from which to broadcast. If you want the media to use official releases of information, you'll have to ensure that the information is timely, fresh, and easy to access. Reporters have options about where to get information, and there are plenty of people inside and outside official channels who are willing to talk. A well-functioning media command center or JIC within the EOC that gives the largest amount of, most accurate, and freshest information will often trump other sources.
- **Inadequate scientific expertise might be a concern:** During a public health emergency or any event involving technology, most media personnel will not have the scientific background to quickly grasp new information or the nuances of that information. Be prepared to fill in the blanks, without being arrogant. Do not assume that everyone knows the technical jargon. Use plain language. For example, explain the difference between bacteria and viruses. Start with the basics and bring reporters along. They will appreciate this, and it will help them provide more accurate information to the public.
- **Person-on-the-street interviews using cell phones and cameras:** These are very common during the first moments of a crisis. The sooner official news sources are available, the less time will be given to broadcasting personal stories.
- **Journalists interviewing other media personnel:** This will be common during the initial moments of an event. Again, until official news sources are available, the media will use in-house experts to fill time.

Reality Check

PIOs may face criticism from some reporters:

- If this happens, don't hold grudges.
- Encourage others, such as leadership and spokespersons, not to hold grudges as well. During an emergency, emotions and tempers run high. If a reporter is approaching coverage of the event in an inappropriate way, find a time when cooler heads prevail to discuss it.
- Don't shut the reporter out.
- Don't refuse to provide an expert to a reporter. Situations change quickly and keeping an open line of communication is your priority.
- Follow the etiquette expected in the field when lodging a complaint or asking for a correction from a reporter and his or her editor.

Getting Emergency Information to the Media

There are many ways to disseminate information to the media:

- Press releases
- Press conferences or media opportunities
- Satellite media tours
- Press conferences by telephone and webcast
- E-mail distribution and broadcast faxes
- Websites, video streaming, and webinars
- Response to media calls
- Social media (for some types of information)

Press Releases

The press or media release is a written statement and remains one of the most common ways to announce something newsworthy. In an emergency, print information must move electronically to the media so press releases are often distributed as e-mails or are posted on websites. It is also helpful to

distribute press releases to the media at the incident site. All releases should include a time and date. If you are thinking about using a press release, consider the following advantages and disadvantages:

- Press release advantages:
  - Consistent information is distributed to all media.
  - A chronological and historical record is on hand.
  - Background information and direction to other sources of information are included.
  - The media have something tangible and in an electronic format.
  - Questions at the top of reporters' minds can be answered by using a fill-in-the-blank template (who, what, where, why, when, and how).
  - Press releases allow for the simultaneous release of information (via e-mail and Web).
- Press release disadvantages:
  - Releases take time to write and information may be changing while you are writing.
  - Clearance can be complicated and take extra time with the added layers of an official command.
  - Reporters will expect more press releases. Be prepared to consistently offer information this way.
  - The information must be organized through a command post or JIC. Otherwise, competing press releases will happen. Multiple releases from different areas of your organization may suggest a lack of clarity about who is responsible for collecting and releasing critical information.

Press releases can be released through commercial press release services. They give organizations access to national, regional, or specialized media outlets using Web-based distribution. Many of these services are available 24-hours-a-day. Consider the following advantages and disadvantages:

- Commercial press release service advantages:
  - These services reduce the need for your organization to maintain up-to-date specialized media lists or lists of media outlets outside of your local area.
  - Press releases move rapidly to news organizations.
  - A list of media outlets that received the release is available.
  - Commercial press release services provide a way to reach media outlets that may not be on your core media list but have an interest in what is occurring.

- Commercial press release service disadvantages:
  - The source of funding for using the service must be in place in advance of the emergency.
  - Releases through a newswire may appear less than official for some types of emergency information. Media outlets may expect significant releases to be sent directly from the response organization to the newsroom.
  - Commercial press release services may not be necessary when media outlets are actively engaged. It could be a waste of resources to use these services. However, they may be appropriate at less intense times during the emergency response.

Press Conferences or Media Opportunities

A public health emergency is an appropriate time to consider holding a press conference. The term "press conference" generally implies an event that is scheduled in advance, includes a press kit, and is designed to allow media to ask questions of the featured experts. During a crisis, however, a media opportunity is more appropriate for the early phases. One can be arranged at the site of the crisis and allows for information to be released to all media outlets. It might not require press kits or a question and answer opportunity. They have the following advantages and disadvantages:

- Press conference advantages:
  - If reporters are at the site of an event, it's an effective way to fulfill media interview requests in one shot while controlling access to the site.
  - It ensures consistency in the information released.
  - The spokesperson and subject matter experts can be introduced to the public, allowing them an opportunity to express their feelings and build credibility.
  - Response organizations can show there is a process in place to respond to the crisis, and that even though the event is unfolding, someone is there and ready to help with response and recovery.
  - Strict rules about questions from the media can be imposed.
  - If information is changing rapidly, or not enough is known for a press release, it fulfills the need of electronic media to fill space and time.
  - Elected officials have a forum to present a united front.
- Press conference disadvantages:
  - It is sometimes difficult to get the right people in front of the media to give updates. Good planning can help prevent this problem.
  - Information may be sketchy and response officials may hesitate at meeting with the media when they do not have the answers. Good training can help prevent this problem.

- If media cannot be at the site, they will not have the information they want or need.
- It creates expectations for additional and regular conferences with the press.
- If coordination is poor, competing media opportunities may occur. Local, state, and federal officials, and people across levels of other organizations, need to have a plan and agree to the timing of media opportunities.
- The intense rush for early news from the media will push the limits of rules set about the length of the spokesperson's availability. If a no-questions policy was appropriate, and set in place, a press conference may also push the limits of that policy. There must be an escape route for speakers out of the media area.
- Media will want to follow up with individual interviews. Consistent ground rules are important.

Satellite Media Tours

At the national or regional level (or at the local level when media in other cities are pushing for access), a satellite media tour may work well. These tours can be arranged in a matter of hours during a crisis. If satellite trucks are parked outside the door, there will be no expense for your organization, and you can get important messages out to the public. However, they may not be the best choice early in the emergency.

Media tours allow communities to talk to each other, offering support, ideas, and lessons learned. Satellite media tours are usually conducted with a single spokesperson or your field expert. They allow the local media to interview your agency's expert on a specific topic. These interviews are typically live-to-tape with special requirements. If you conduct a satellite media tour, do the following:

- Be sure your expert has access to a teleprompter identifying the reporter.
- Use the opportunity to correct misinformation on the spot.

If you are thinking of conducting a satellite media tour, consider the following advantages and disadvantages:

- Advantages of satellite media tours:
  - They allow the media to have access to the center of action with response officials.
  - They offer access when journalists are unable to be onsite or are prevented by the nature of the public health emergency to travel to the site.
  - They provide a way for local or regional media to speak in depth to your organization's experts and ask questions specific to a region or population.
  - They increase the chances that media in other areas will receive correct information directly from your expert instead of translated through others.

- Disadvantages of a satellite media tours:
  - If media satellite trucks are not at the site, satellite media tours can be expensive.
  - Unless resources and agreements are already in place, they are not easily arranged.
  - They have a limited reach and are not appropriate for many situations.
  - After a round-robin of similar interviews, spokespersons may burn out.
  - They are time consuming.

Press Conferences by Telephone and Webcast

Internet and telephone technology allow you to set up toll-free telephone numbers or webcast opportunities that the media can access at specified times. Participating spokespersons can be at different locations. In addition, the technology is interactive and can allow journalists to ask questions. This method of delivering information offers the following advantages and disadvantages:

- Advantages of telephone and webcast conferences:
  - They reach far more media outlets than just those at the site of the incident.
  - Response spokespersons will be able to reach national media outlets and local media outlets in other communities.
  - They are easy to arrange.
  - Their cost is moderate.
  - Officials are generally comfortable with this format.
  - They have great flexibility in terms of when and where they take place.
  - They allow public information officials to have some control over who has the toll-free number. However, the toll-free number can be forwarded further or posted on the Web.
  - These types of news conferences can be regularly scheduled to satisfy media representatives by assuring them of regular updates.
  - These formats allow for last-minute changes in spokesperson. This may happen if a new development requires a new expert to appear or a spokesperson is called away for unavoidable reasons. With these formats, it's easier to get a substitute.
  - They allow time for questions and the questioner's name to be announced by the moderator.
  - Lists of all participants, even those not asking a question, can be provided, making news monitoring and analysis easier.
  - Recordings of the event can be archived and made available to the media after the fact.

- Disadvantages of telephone and webcast conferences:
  - These types of news conferences require a funding source or advance contract.
  - The cost can add up over time.
  - It is difficult to wean media from this format; regular calls should not be stopped abruptly.
  - Teleconferences do not fulfill the visual needs of TV news.

E-mail Distribution and Broadcast Faxes

Most media organizations prefer to receive information from other organizations through e-mail or by fax. Electronic distribution of information allows for efficient and rapid translation to news formats. While fax or blast fax distribution is becoming less common, they are still used by many news organizations.

- Advantages of e-mail and broadcast faxes:
  - You can almost instantly disseminate information to media outlets on e-mail contact lists at an imperceptible cost.
  - Corrections are easy to make.
  - The organization gets credit for having contacted reporters or outlets by name.
  - They provide an open channel that allows you to feed information to the media at will.
- Disadvantages of e-mail and broadcast faxes:
  - Lists require regular updating and maintenance. Media organizations and personnel move around often.
  - They provide a passive way to give the media information; some may not get to your e-mail or broadcast fax until it's too late for them or you.
  - They are not personal and may prompt further inquiries and phone calls.
  - They require cleared print information, which is time-intensive for the public information office and could slow information flow to the media.

Websites, Video Streaming, and Webinars

A variety of Internet-based tools have made media access much easier and more cost-effective. Releases can be posted to media pages on your website. FAQs, background information, and event videos can be linked to releases. Videos can be archived and streamed. Webinars can provide detailed information

and access to subject matter experts. Web-based tools have significantly bolstered access to media organizations and direct access to the public although they are time consuming, particularly during a crisis. They have the following advantages and disadvantages:

- Advantages of websites, video streaming, and webinars:
  - They rapidly update all media simultaneously.
  - The process becomes transparent because the public and media see the same information on the site. It allows the organization to speak directly to the public without a media filter.
  - Documents and information are organized and provide a record for the media and your organization.
  - This allows for links to help media personnel collect background information.
  - Rumors, myths, and misinformation can be addressed immediately without drawing undue attention.
  - Official video or pictures can be made available to media outlets in a digital format.
  - FAQs on the page provide a user-friendly way to educate during a crisis.
  - They are cost-effective tools.
- Disadvantages of websites, video streaming, and webinars:
  - They are time consuming.
  - They require frequent updating.
  - On occasion, they crash with traffic overload.
  - They may frustrate journalists if too much information is provided or if the site's organization is not clear. Journalists want it easy and immediate. You may have to walk some of them through the site the first time.
  - They are technology-dependent and may be vulnerable to glitches or interruptions by hackers. People in disaster zones may not have website access.

Response to Media Calls

The relationship between PIOs and the media is often grounded in phone calls from reporters requesting specific information or an interview. In a public health emergency, the manner in which your organization responds to these calls from reporters makes a difference in the way your organization's responsiveness or professionalism is portrayed to the public.

If journalists do not believe your response is quick or appropriate, they may reflect this in their report. Every organization must establish a workable plan to respond to a surge of media calls. Train, plan, and

coordinate continually. Let media outlets know ahead of time how the flow of information will work, how to get their requests answered, and what your PIOs can or cannot do. If phone lines are overloaded, what's the backup plan? Responses to media calls have the following advantages and disadvantages:

- Advantages of timely responses:
  - Media outlets can provide information you may not be aware of, such as information about a neighborhood leader who is complaining that the response resources are not being fairly distributed. This can happen because some disgruntled people will call the media for resolution before they will call the official organization responsible for these resources.
  - Media inquiries may reflect the public's level of interest. The number of calls and frequency of subjects raised can give the response community a sense of what is important to the public and where more information resources may need to be directed.
  - One-on-one contact with the media allows opportunities to emphasize key message points, direct media to upcoming issues, and correct misinformation.
  - Personal contacts can help build relationships and promote trust.
- Disadvantages of timely responses:
  - Returning calls takes time, which is at a premium during a crisis.
  - The potential exists for inconsistent or premature release of information. To prevent this, press officers and spokespersons must be well-trained and the release must be coordinated and cleared.
  - Follow-up calls may be required if information changes before a media outlet releases it. If you neglect this, you'll be guilty of not giving the right information.
  - Phone tag is frustrating to journalists working on deadlines.
  - Massive prioritization is required. Reporters will know if they're not at the top of the list.

Social Media

Many mainstream media organizations are using social media as a way to generate content. They may monitor social media, such as Facebook pages or Twitter feeds, for information. Many federal agencies, including CDC and FEMA, maintain several Twitter accounts as a way to provide very timely information on events and to update audiences, including the media. Social media offer the following advantages and disadvantages:

- Advantages of social media:
  - Social media are immediate.
  - They build and maintain dynamic relationships with the media.

- They can be used to dispel rumors by providing accurate information quickly.
- Social media incorporate website links where reporters can go to get more information.

- Disadvantages of social media:
  - They require personnel and technological resources to maintain and monitor social media channels.
  - They have limitations in terms of how much information is included.
  - Follow-up and continual monitoring may be required to update information and dispel rumors.

"Social media is instant information, on your time, not on the media's time."

Ken Pastorick,
Public Information Officer,
Louisiana Department of Health and Hospitals

Writing for the Media during a Crisis

Research has shown[13,14,15] that the public's belief that an emergency response was effective correlates with how much access to information they had during the crisis. The fundamental challenge is speed versus accuracy where both are important. If information is accurate and released after the public has moved on to another issue, it has little value. If it's out fast but is not accurate, the best-case scenario is to admit it and move on; the worst case is that the inaccuracy causes harm to the public. The rules of good journalism apply, with or without a crisis. There will be pressure to move the process along at a pace that reasonable reporters and other people will perceive as responsive and credible.

Acknowledge the inherent challenge of every crisis. Push the responding officials toward releasing accurate (but perhaps incomplete) information ASAP. You can begin by telling the story even if you are not sure of an ending.

The following tips should be helpful:

- Ask what can be committed to paper first.
- Start with what can be verified.
- Tell the media and the public that more information will come as it becomes available.
- If decisions are not finalized, then explain that the process to reach decisions is ongoing.
- If laboratory tests are not completed, explain the testing process.
- Keep the media and the public engaged and involved, even if the answers to the hard questions aren't yet available.

Prepare to Provide Basic Background on Issues to the Media . . .

When a health-related disaster or event occurs, reporters who do not normally cover health and science topics will be assigned to cover the event. At that point, you will find yourself dealing with people who need basic information about the issue first. Have this background information prepared and ready to share. It will prove useful when journalists begin developing reports for the general public.

When the 2011 Japanese earthquake and tsunami resulted in a radiation emergency from a damaged nuclear facility, the worldwide public was anxiously seeking information about potential radiation exposure in air, food, and water. Reporters were trying to cover a breaking story with obvious health implications. Like the public, they knew little about a radiation emergency and its potential health effects. CDC immediately posted a website on the situation. This site, *Japan: Radiation and Health*,[16] contained fact sheets, FAQs, social media information, and even Japanese translations of various radiation emergency documents.

This helped ensure that the media received scientifically accurate and easy-to-understand information to be communicated to the public. Many people became educated about radiation risks. They knew what actions to take, or in the case of potassium iodide, what action not to take.

What Should Your Media Release Include?

During the early phases of an emergency, standard press releases are the most basic form of media communication. As the crisis evolves, consider following up with feature releases:

- Stories about individuals or units involved in the response
- Articles that illustrate outcomes and their successes
- Personal accounts of those who were helped during the crisis

An emergency press release should be limited to one page. You will need to practice to determine what information belongs in a fact sheet verses a press release. Think of press releases, from the very start, as press updates.

The press release should answer the questions who, what, when, where, why, and how. Additional information goes into an attached fact sheet or backgrounder. This method will speed up the clearance process, reduce the opportunity to introduce errors, and help the media determine which items are news and which are considered background.

When you create a press release, do the following:

- At the top of the release, include the following information:
  - Your organization's name
  - Address
  - E-mail
  - Website
  - Telephone number
  - Contact name(s)
- Give the media a 24-hour contact number. If you have a toll-free number, include it and let reporters know it's for them, not for the general public.
- Place the date on the release. If more than one release is issued during a 24-hour period, place the date and time on the release.
- Give your press release a headline. Journalists can identify quickly with headlines. Create headlines using an active voice, and summarize the core information in a few words. Never reuse a headline during the crisis.
- Use a press release number if this is standard for your organization. This may be helpful, but do not use numbers to replace unique headlines.
- Put "for immediate release" at the top under your contact information; don't make reporters or editors guess about a release time.
- Write in the inverted pyramid style, putting the most important information first. Do not use a strong concluding paragraph, the strength will be up front. A well-written press release reads like a news story.
- Provide new telephone numbers or website addresses high up in the press release. Don't assume an editor will notice it in the last paragraph.
- Limit the length of sentences and paragraphs. They should rarely be more than 20 words. A one-sentence paragraph is acceptable in a press release.
- Remember, the more syllables per 100 words, the more difficult text is to understand.
- Explain scientific or technical terms. Don't assume your audience will understand what you mean.
- Eliminate adjectives or emotionally loaded words.
- Check your facts, especially after including revisions from subject matter experts.
- Perform a security check; some information may be classified.

- Perform a privacy check; some information may violate the privacy of victims and their families.[17] Consider the following:
  - Health Insurance Portability and Accountability Act of 1996 (HIPAA)
  - Your organization's policies regarding privacy
- If names have unusual spellings, mark an "OK" note next to the name so editors know it's correct.
- If a name has an unusual pronunciation, include the phonetic pronunciation so radio and TV reporters pronounce it correctly.
- If an error is detected in a press release that has already been distributed and there's time to correct it, make the effort to send the corrected version right away.

Reality Check

Some concessions to journalistic tastes will be required to get press releases cleared through scientific and official response channels. It helps if you:

- Write press releases in advance
- Use fill-in-the-blank sections
- Clear them through channels (or at least have them reviewed ahead of time).

This will help officials with no media background distinguish the difference between a press release and a situation report. The clearance process often becomes an exercise of writing by committee and the result is often tortured texts. Focus on the goal of getting accurate and timely information from your organization to the media and public.

Press Statements Versus Press Releases

Press statements typically are not news. They may be an official position or perspective of the organization. They normally contain only a few paragraphs. For press statements, consider the following:

- Attribute statements to a high-ranking official in the organization.
- You can use them to counter a contrary view about an important subject related to the emergency, such as why your agency is choosing one treatment recommendation over another.
- Do not use a statement to generate a peer-review debate.

- Press statements may be a means for an official to be quoted as having responded to an issue without the need for a media opportunity.
- You can use them to offer words of encouragement to victims, responders, and employees.
- Post statements on the organization's website in the same location as press releases. They should include a contact number for the press office.
- Use statements sparingly for best impact.
- Don't state the negative that's being countered. State your organization's position without validating a contrary point of view.
- Realize that press statements require more time and a higher level of clearance.

Media Fact Sheets and Backgrounders

Fact sheets provide facts about a specific topic. Backgrounders provide the relevant background or history. When you create fact sheets and backgrounders, consider the following:

- Generally, these will be attached to a one-page press release.
- Define any scientific or technical terms used.
- Keep fact sheets in a bullet format with a logical progression from the broad to the specific about a single subject.
- Use paragraph form for backgrounders and provide historical and technical information that is too in-depth for bullets.
- Use frequently asked questions (FAQs) for fact sheets and backgrounders, if appropriate. Expect to see FAQs on media websites, so make sure they are accurate.
- Avoid including information in fact sheets and backgrounders that will likely change. Press releases are the place for updates on the ongoing situation. Fact sheets and backgrounders give the facts, as well as background or history.
- Do not use quotes from officials or subject matter experts. If you do, it will turn into a poorly written press release.
- Release fact sheets and backgrounders as official documents from your organization, via the JIC or the EOC, if activated.
- Coordinate information to make certain all parties agree on what's fact and what's background.
- Prepare in advance, when no emergencies are in sight. Coordinate your information with other agencies.

Visuals, Video Press Releases, and B-Roll

Television and websites continue to be dominant sources for news. While older audiences continue to favor television and turn to local news, younger audiences increasingly use the Web.[2] News outlets use visuals to support reports. Digital technology makes it easier and less expensive for official response organizations to provide visual support for the media during emergencies. Videos can be loaded on websites and news organizations can edit them into their reports.

When you create visuals, video press releases, and B-roll, consider the following:

- You might want to include 10- to 20-second video sound bites from response officials and experts that can be edited into local newscasts.
- Get key messages on tape.
- Video news releases may become dated and time consuming to produce in the early phases of an emergency.
- Try using B-roll (background video without narration):
  - B-roll is easier and faster to produce.
  - News directors often prefer B-roll, as reporters will build their own stories around the video.
  - B-roll serves as visual backdrops for a reporter's voiceover.
- Prepare B-roll in advance, if possible. Get a security check to ensure that classified information is not being released.
- Don't raise a subject in B-roll if you do not want to promote it.
- Write sound bites for spokespersons. Your spokespersons will not have time to pare the main points down to 20 seconds.
- Make sure each sound bite stands alone. No need to confuse a viewer who may see only one of five possible sound bites.
- Give the video news release or B-roll a paper and on-tape index that explains who is talking or what is being shown. For example, the index might explain that at 2 minutes into the video, a biosafety level 2 lab technician is preparing samples for testing.
- Determine distribution methods. You might consider the following:
  - Schedule a satellite feed following a media advisory.
  - Load videos on websites.
  - Provide copies of the B-roll that can be picked up by media.
  - Deliver it to the media.

- Feed it from a local network affiliate to a national network satellite, which can be fed to other local affiliates.
- Send via overnight mail, requesting that the hard copy be returned to you.

- Produce video news releases and B-rolls as professional products to fulfill media requirements. Some in-house digital video can be displayed on your website.

Communicate Early and Often

Be proactive and provide recommendations and information to the media and the public as early as possible to establish your organization as an accurate, credible, and timely news source. Doing so will facilitate stronger relationships with the media and the public.

Example 1: In 2001, during the anthrax crisis, there was a concern that a Ft. Collins, Colorado, postal worker may have contracted the disease. Local and state health workers wanted to ease the concerns about potential exposure to anthrax bacteria, and quickly decided to distribute a press release announcing the closing of that post office and the availability of antibiotics for the other workers in that facility.

Example 2: Regardless of whether or not FEMA is in the midst of responding to a crisis, FEMA Disaster Field Offices develop and distribute a "message of the day" to help establish credibility and a rapport with the public and the media.

Meeting Media Needs Throughout an Emergency

A central question during any public health emergency: "Is a press conference, media event, or other speaking opportunity the right way to release information?"

If coordination has occurred with other responding organizations or a press conference is planned, the answer may be an easy "yes." If the situation is unfolding quickly and there is a need for rapid information dissemination, the answer may also be "yes."

Where to Hold the Press Conference

To determine the location of a press conference, consider the following:

- The emergency or disaster site, if it is safe for the media and it won't interfere with recovery efforts, might be your first choice. Make certain that victims' privacy will not be compromised.

- Press conferences may be held at the EOC or JIC if room has been set aside that is separate from the operations center. You don't want media personnel moving in and out of the emergency operations center. If the conference is held in a restricted building, try to streamline the media's screening and access to the site, even if it requires volunteer escorts for each reporter.
- Consider using a separate official location, such as the town hall, the health department headquarters, or the governor's office.
- Conferences may be held at a hotel meeting room convenient to the officials involved and the media who are likely to attend.
- Remember that sound equipment needs to be available or in place. Consider providing electrical outlets (if not using street interviews) and other specialized equipment needed by the media.

How and When to Invite the Media

The following tips will help you successfully invite the media to your press conference:

- Give the media advance notice, but not so much that the event is canceled because it's overtaken by other events. An hour is the absolute least amount of time from notice to the event, unless media personnel are all standing by waiting for a formal comment.
- If the emergency has gone on for some time, schedule a regular time for media opportunities, such as daily at 2:00 p.m., and stick to it. This will eliminate the need to contact the media each time.
- If you have something really important to release and the media may not be aware of what's coming, use the resources necessary to call reporters or their news directors and editors, and tell them why they need to come.

Send a brief media advisory about the media opportunity. It should be only a half page long and give the following information:

- Nature of the event (media opportunity or press conference; know the difference)
- Date, time, and place
- Contact person, and who is scheduled to appear (by name and title, or by position and subject matter expertise)
- The topics to be covered

Keep the advisory short. You'll get it cleared more quickly and have greater flexibility if you want to adjust messages or add topics. Be specific enough that reporters understand the urgency. This is easier early in the emergency, but may be more difficult during later phases of the crisis.

Whom to Invite

Before announcing a media opportunity, check to ensure that spokespersons or officials are available. Have backups on standby in case the spokesperson is called away.

- Invite representatives from print and electronic media outlets, and don't forget radio stations. If the JIC is hosting a press room, be sure to post a notice there.
- Attempt to limit the number of emergency response officials in attendance who will not have a speaking role. Reporters find it disconcerting to see a pack of people in the back of the room, possibly wearing response uniforms or credentials, who were never identified. Also, expect that anyone in the room from the response team could be approached by the media for comment. Another concern is that response personnel in the pack in the back of the room might privately discuss information not yet ready for release, and be overheard by reporters. "By invitation only" holds true for response personnel, too.

How to Conduct the Media Opportunity

It is appropriate to alert the media ahead of time as to whether questions will be addressed or if only statements of information from organization officials will be made. Reporters do not like to be restricted from asking questions, but they'll accept it if the information is real news and they are given access to the officials at other times to get their answers. Taking questions means giving some control of the content over to the media. In the early phases, it may not be necessary to take questions.

The following tips will help you conduct media opportunities smoothly:

- Decide the time limit, including question and answer time. Let the media know there will be a limit.
- Keep speakers out of the room until the event begins. You don't want to negotiate logistics in front of an audience. Remember, the moment principals are visible to the media, their demeanor and behavior is a matter of public record. It's natural to blow off steam and joke around, even during the heat of a crisis. Do that away from the cameras. Make sure all understand that the event is "on record." It will be reported.
- Let the media know at the start of the conference if there are controversial issues surrounding the emergency that are not going to be addressed.
- Whether the speakers sit or stand depends on the room, the length of the event, and whether they are all speaking and all taking questions. If all stand, a herd effect occurs. The group will seem more active, as if there is urgency to the situation. That's good if that's what you want to convey. It's not as good when attempting to promote a calm, reasoned response.
- A press officer may moderate the event or the lead official may do so. Accommodate the preferences of the official but be available on the side if they decide to go it alone.

- Unless the officials are nationally known faces and names, ask speakers to introduce themselves by name, title, and organization. They should repeat their names and organizations if they step forward to answer a later question.
- If your organization is going to accept questions at the press conference, select who will choose reporters to ask questions. Is it the lead official or perhaps the press officer who is monitoring the conference? Plan this in advance.

Reality Check

Be ready for the press conference to be different than you planned. The following tips may help:

- Reporters will ask whatever questions they please, despite your directions.
- Be sure the officials know who will respond to controversial questions. This is the person who will refer the reporter's question back to the appropriate organization or the subject matter expert.
- Get agreement from all of the officials involved; if the answer doesn't fall within the scope of their responsibility, they cannot respond. This may be hard for some of them, who may have a good answer to share.
- Have a backup plan for such glitches as the loss of sound equipment.
- Either before the officials enter the room or at the end of the event, tell reporters how to get more information and additional answers.
- Decide ahead of time if officials are going to do standup media interviews for individual reporters following the event. It's fine to do this if the official has the time, won't go off-message, and there's an exit plan to end the interview. For example, you might explain to a reporter that the official is pressed for time and has only five minutes before his car leaves for another appointment.
- If you allow a standup interview after the press conference, expect radio and print media to surround the TV reporter conducting the interview or vice versa. These interviews are really like another small, informal press conference. Keep control by assigning a press officer to each official. You need to know if something has been said requiring a reaction from your organization.

Using Visuals

It may be too much to ask officials to manage charts, PowerPoint presentations, or slides during the briefing. If possible, position a communications expert to manage the visuals. Reporters will want copies of any slides, graphs, or visuals used. These can be made available on websites.

Caution: If an official waves a document or report, or refers to it during the media opportunity, reporters will be asking for copies. Try to agree on what will be mentioned and what will be available, and prepare the visuals ahead of time. If practical, tell reporters ahead of time that they will get copies of what is being shown. Have paper copies of visuals in case the equipment fails.

Military briefings often make extensive use of visuals. Department of Defense press conferences are good examples of how visuals can be used effectively.

Handouts

If possible, have copies of the presentations, useful fact sheets, and backgrounders available. Reporters like to use these to take notes and write their pieces, even if they have recorded the entire statement. Don't forget to provide background information on the organization, such as a simple mission statement, organizational chart, and basic facts.

If speakers are not well known, have brief bio handouts. This helps build their credibility for reporters and the public who may read about them.

Reality Check

Record press conferences (at least on audio) if at all possible. It will help with questions and answers after the fact, and is your record of what was said. Don't rely on memory, especially during a crisis. Consider the following tips:

- Arrange for media monitoring following your conference to see if your messages were clearly reported.
- Prepare the materials needed to push those messages out as clearly and concisely as possible.
- If the topics discussed during the media opportunity remain clear, but limited, you have a greater chance that your desired messages will make the upcoming broadcast or newspaper.

Following your press conference, immediately assess the following:

- Were key messages delivered?
- Were similar questions asked repeatedly?
- How effective was the spokesperson's delivery? Consider aspects such as tone, body language, and clarity.
- Do you need to prepare for any "next day" issues?
- Is there a need to follow up with specific media outlets, based on their questions, to clarify issues?
- What can you do next time to improve the media opportunity?

Responding to Media Regarding Significant Errors, Myths, and Misperceptions

The media have a good record of getting facts correct during crises.[18] Unfortunately, sometimes media reports can get facts wrong, report rumors, or perpetuate misrepresentations. Blog posts and social media status updates are unfiltered and often include inaccurate information. These mistakes may not only harm the public, they can undermine the credibility of your organization. While media rumors, myths, and errors in press reports are usually self-correcting, sometimes the correction does not happen fast enough.

You can speed up corrections using the following approaches:

1. Remain calm.

When you talk to the media, you are speaking for your agency or organization. No matter how angry you are, do not react thoughtlessly. Doing so will reflect negatively on you and your organization. It detracts from your mission of communicating accurate health information to the public.

"Declaring war on the press, tempting as it may sometimes be, is a game you can't win."

Stratford P. Sherman, Fortune Magazine

Some reporters may believe that only sensational, negative stories are news. "If it's good news, it's no news" and "if it bleeds, it leads" are two quotes frequently associated with this type of reporting.

Also, reporters do not always have time to get their facts checked. Their jobs may depend on turning the report around quickly. If they spend a lot of time on research, a competing reporter may release the story first.

Reporters are just trying to do their job, so don't take negativity personally. Always try to think in terms of educating the media and, thereby, building bridges to promote accurate stories in the future. After all, media outlets are an important communication link to the audiences you are charged to serve. To do this, you need a strategy.

2. Analyze the situation.

Ask the following questions:

- **What is your relationship with this reporter and media outlet?** Is the publication, television, or radio program credible? Have you worked with the offending reporter previously? Following a negative news report is not the best time to make a "cold call," to speak to reporters or work with media outlets for the first time. Expressing a complaint to someone who knows you as a credible person is easier and more productive. If the media outlet is unwilling to listen, consider trying to get the point across to the audience through an alternative source. Try to understand the reporters' point of view and that they do not serve as your public relations firm. Reporters have no obligation to report only positive stories for you. However, they do have a responsibility to provide accurate information to their audience. You can and should appeal to their sense of community service and journalistic integrity if the stories they are running are not in the public's best interest. Remember who you are trying to reach. Do not try to win a contest with media representatives. Try to serve the public interest by disseminating accurate information to promote public health. No matter the response from reporters, keep anger in check.
- **Did the news report attempt to express both sides of the issue?** To many reporters, a balanced report is one that examines opposing sides. Whether one point of view is an extreme position and the other generally accepted may not be a relevant question. As long as reporters attempt to present both sides, they often consider this fair.
- **Was there truly an inaccuracy, or did the reporter simply present the facts with a negative slant?** Correcting a factual error is relatively simple and straightforward. Reporters and media outlets want to do their jobs well. They do not like mistakes. However, a difference of opinion about a subject is not as easy to counter. Statements perceived as biased, uninformed, or sensational may not be viewed by reporters as an error on their part. You can still respond to the article; however, your strategy will differ from one required to correct a factual error.
- **Is the news report true even though it may be negative?** You would prefer that only positive stories appear in the media, but that is not always possible. There will be times when you will not have a response to counter a report that provides negative news. There is an old saying, "in order to prevent the perception of covering up bad news, the good news must get out fast and the bad news faster."

  When there is bad news to report, it is important not to withhold or counter the information. Reassure the public that no matter what the issue, positive or negative, being open and responsive to the public's need for accurate information is a priority. Do not attempt to win a

contest with the media or a popularity contest with the public. Rather, communicate accurate health information to the public. This event may be simply the time to "take it on the chin" to satisfy critics who are also served by the media.

If the report is mostly accurate, and mistakes made by the reporter are minor, consider letting the story run without comment. Arguing with a reporter over a minor point when a news item is otherwise accurate will not help you build bridges for future positive stories. Consider contacting the reporter to establish a dialogue for future, more accurate stories.

3. Know what to request.

Once the situation has been analyzed and it is decided that action is necessary, decide on your options to resolve issues. There are only a few possibilities available for a reporter to respond to complaints. Decide, ahead of time, your ideal, as well as your minimal, solution. Think of this as a negotiation. Here are some possible requests:

- **Ask for a retraction or correction:** A retraction is only reasonable when a serious factual error has been made and you have supporting material to refute the report. If this happens, ask for an immediate correction that runs as prominently as the original piece. Although this is not likely to happen, it's possible you will discourage the editor from burying the retraction.
- **Ask for another piece to air that presents your perspective on the issue:** A follow-up response is a reasonable request if an important point of view was completely ignored or misrepresented in the original report. The best way to get a report redone is to provide reporters another angle for the story. Reporters are not likely to present a follow-up piece that simply contradicts a story they recently ran. They will not want to lose credibility. If you give them a fresh perspective, a new angle, or new information—while also giving them a way to maintain credibility—they are more likely to develop a follow-up story.
- **Ask for an apology:** Sometimes reporters make unintentional mistakes. If the errors are not endangering a person's life or reputation, perhaps an acknowledgment of the mistake over the phone by the reporter is enough. Establish yourself as a source for this reporter and develop rapport that could lead to accurate, more positive stories in the future. The reporter may call to verify the accuracy of a forthcoming story before running it. This provides an opportunity to avert future inaccuracies in that reporter's stories and provides forewarning if another questionable news story is about to run.
- **Ask that a correction note be placed in the permanent record:** Ask the reporter or editor to file a written correction with the original piece in the permanent record. If the mistake is a factual one, it should not be repeated (even if a correction is made). Ask the reporter or editor to officially tie the correction to the original report. Reporters often go back to do research, and they may report the mistaken information again if they do not realize that a correction was made.

- **Ask that a letter to the editor or guest editorial be printed:** If an important message concerning the issue reported is needed, a letter to the editor may be the right choice. Letters to the editor are widely read, and publications are usually quite willing to print opposing views. Keep in mind that the message must be concise or your opportunity to correct an error could be lost in editing. Make the strongest points early and keep the letter brief and to the point. Editors who are rushing to meet a deadline cut from the bottom up. Be sure to seek approval from subject matter experts within your organization before sending your letter. Coordinate with your public affairs office.

4. Know whom to contact.

Media outlets have a chain of command. Starting at the top is not usually the best approach. Follow the chain of command when contacting the media to respond to an article or broadcast piece.

- **Talk to the reporter first:** Always give the reporter the first opportunity to respond to concerns. Perhaps the reporter is frustrated because an editor changed a piece without his or her knowledge. Perhaps the producer who put together the nightly news teaser misunderstood the reporter's message or sensationalized an originally balanced report. Let the reporter have an opportunity to respond and explain. Know the reporter's position before taking any action.
- **If the reporter can't be convinced:** Ask to speak to the news editor or producer. Keep moving up the chain until satisfied or until convinced that satisfaction is unlikely.
- **If you have doubts about the integrity of the media:** If the reporter or media outlet that presented the negative or inaccurate report is known to lack journalistic integrity, consider going to another media outlet. Of course, go to them with a great story idea, not just a complaint about the other media outlet.
- **Consider reaching your public through alternative outlets:** If all else fails in efforts to set the record straight with the offending media outlet, redouble your efforts to get messages to the public through other means, such as the following:
  - Use the Web, which makes direct communication much easier.
  - Set up a public forum.
  - Invite partners to write letters or make phone calls.
  - Offer articles for community newsletters.
  - Work to establish contacts in competing media outlets.

5. Know what you want to communicate.

When you decide to counter a questionable news article, you must thoughtfully develop the message you want to send. Know the audience and the message the audience should receive:

- Develop messages and have them screened by advisors and subject matter experts. Remember, your organization should speak with one voice to maintain credibility. Confer with interested parties within your organization to avoid cross purposes with colleagues who have a different perspective or additional information.
- Make sure to frame the message in a positive way. If appropriate, include a call to action.
- Focus on the audience, which is the public, and the purpose, which is to promote public health.
- Keep anger at your critics or the media out of the message. The media are neither the message nor the audience.

Convincing a reporter or producer to air a message requires being prepared to communicate that message without delay.

6. Have a plan before you need it.

If an objection is to be effectively heard, express it as soon as possible. Know the important issues within the organization and the basic arguments of critics. Prepare messages on the various issues ahead of time, especially when an issue is controversial. Draft letters to the editor that could be altered slightly and submitted within hours of the appearance of the offending piece. Consider releasing articles on these issues before reporters have the opportunity to run inaccurate or negative stories.

- **Put the media on notice that you are paying attention:** The media has a stake in responding to the need for correct information. They need to know that their actions are being watched and their stories are carefully read. Maintain regular contact and call reporters to praise good stories. Remember to build relationships with the media at every opportunity. They are a critical link to the public because they can facilitate your efforts to promote public health.
- **Let the media know that you're a potential source for the future:** Don't just ask for an immediate airing on the subject; invite reporters to call for interviews in the future. Make sure of availability and give credible and constructive interviews. Develop internal sources of interview candidates that you can offer to the media when issues surface. Be willing to deal with tough subjects. Don't minimize the arguments of your critics. Remember to focus on getting your message to your audience.

Monitoring the Media for Public Response to Crisis Management

When CDC's Joint Information Center was activated to respond to the 2009 H1N1 crisis, the communicators immediately began gathering information from the media to determine what was being said. This helped them create health messages for the media and through CDC online channels, such as their website, Twitter, and Facebook pages.

Once the initial messages were disseminated, CDC conducted daily media monitoring of print, TV, blogs, Twitter, and other Internet sites to determine if the information was being reported accurately. When information didn't always include what they thought the public needed to know, they held additional media events that reinforced accurate information.

Because of the length of the H1N1 crisis, CDC also had to monitor the media to make sure to keep H1N1 in the public eye. They also monitored media outlets to make sure the public had the most up-to-date information concerning at-risk populations, vaccines, school closing procedures, and preventative measures.

Conclusion

Disasters are media events. Despite changes in the media and the fact that social media continue to expand, print, television, and radio serve a pivotal role during disasters. The media typically serve two broad functions:

- They monitor and inform the public of risks.
- They serve a watchdog function for public agencies and government.

Although working with the media during a crisis is almost always very challenging, some strategies and techniques can enhance the flow of accurate and timely information. In addition, it is important not to develop an adversarial relationship with journalists. Instead, recognize that reporters are professionals who have an important role to play during a crisis.

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CRISIS EMERGENCY RISK COMMUNICATION
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Chapter 7: Stakeholder and Partner Communication

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This chapter reviews the following topics regarding stakeholders:

- Common interests and challenges
- Responding to your stakeholders and partners
- Crisis coordination and crisis collaboration
- Working with communities

Stakeholder and Partner Communication and Community Relations during an Emergency or Crisis

Stakeholders are people or organizations with a special connection to your agency, the issue, or the emergency.[1] Perhaps they have long-term supportive relationships with your agency and are considered partners as well. Sometimes they emerge within the context of the specific event. Sometimes they are near and directly affected, and sometimes they are remote and the crisis only impacts them indirectly. Take the time to understand your stakeholders' interests by anticipating and viewing any incident from their perspective. They will be most interested in how the incident will affect their activities, well-being, family, friends, property, and future.

A stakeholder has a strong interest in how the event is managed and how various organizations respond.

Common Interests and Challenges

Expectations

Stakeholders expect action from agencies. It might be as simple as information released through the media or a website, or as complex as in-person meetings with key organization officials. Throughout this chapter, advocates, adversaries, and those who are ambivalent will be discussed:

- **Advocates:** You want to maintain and enhance their loyalty and support. Where appropriate, it may also be helpful to influence advocates to take some action.
- **Adversaries:** Discourage them from getting involved. It may also be possible to shift adversaries to an ambivalent position or, in some cases, shift them to be advocates.
- **Ambivalents:** They tend to stay on the sidelines or provide tacit support. In many cases during a crisis, maintaining large percentages of stakeholders in an ambivalent position may be all that is possible.

In crisis and emergency risk communication (CERC) planning, the first step when responding to stakeholders is to identify them. Stakeholders may vary according to the emergency, but your core stakeholders will be interested in every public health emergency involving the organization and will expect some form of response from your organization. Build positive relationships with stakeholders before an event occurs. This will increase your reservoir of goodwill and help improve the effectiveness of the response.

A good reputation, a track record of effective response, and a history of responsible conduct will build a reservoir of goodwill for your organization. This will make your organization seem more credible and help ensure that your messages are received positively.

Stakeholders are persons, groups, or organizations that may be affected by the event, your organization, or both. They include the following:

- People directly affected by a crisis and their family members
- The medical community, including all who care for the sick and injured
- People whose livelihoods are affected by the crisis (They are more remote stakeholders.)
- People who have visited the crisis location (They are also more remote stakeholders.)
- Communities and cultural groups that may occasionally be associated with a disease outbreak, sometimes unfairly
- Organizations, community groups, and supply chains

Stakeholder relationships are usually extensive and may take careful consideration to fully understand. It's best to think of everyone as a stakeholder, while recognizing that some have greater stakes than others.

Potential Stakeholders

The list of potential stakeholders includes the following:

- Employees
- Families
- Retirees
- First responder community
- Board members
- External advisors
- The organizations' clients
- Individuals and agencies who provide funding

- Local residents
- Business and community leaders
- Community groups, such as schools and faith-based organizations
- Nongovernmental organizations (NGOs)
- Cultural groups and organizations
- Elected officials
- Consumer action groups
- Business communities
- Union or labor organizations
- Competitors
- Legal advocates
- The media

Some of these stakeholders may not be supporters of your organization. It is important to identify those stakeholders who may be unsupportive or critical and be prepared to respond to them appropriately. Your response to stakeholders will depend in part on whether they are advocates, adversaries, or ambivalent. Ask the following questions to anticipate stakeholder reactions:

- What type of relationship do they have with your organization?
- Do they have an affinity with your organization?
- How have similar groups reacted in the past when this type of crisis has occurred?

Why expend energy on stakeholders during an emergency? They are key audiences and sources of critical resources. A retailer may be able to deliver resources such as bottled water quickly and efficiently. Coordination with stakeholders is necessary for an effective response. The effort to connect with stakeholders secures critical information you need. They represent points of view that are vital to understanding how various groups perceive your organization's response efforts. Involving stakeholders gives them a chance to tell you what they feel you need to know. It also ensures that everyone is aware that their involvement is welcomed and valued.

"I think one thing you need to understand about NGOs , faith-based organizations, not for profits that are working in these communities; number 1 they are close to the people, they have institutionalized relationships with them. They understand the community and they can translate the needs of the people and reconcile that with the resources that are available. So if you can make the delivery end of the service through an NGO or faith-based organization, you're going to get a far better response."

RADM Thad Allen, Retired,
Former Commandant,
United States Coast Guard

An emergency or crisis may also be an opportunity to strengthen stakeholder relationships as they see your organization in action. An effective response will enhance credibility. Don't forget to consider existing stakeholder controversies or concerns and how the ongoing relationship will affect their attitude during the incident.

A common challenge with certain stakeholder communication is their expectation to be treated differently than the average group. This is especially true when a group has been harmed or experienced loss.

Communicating with Stakeholders

The following are common mistakes[2] any organization can make in communicating with stakeholders during a crisis:

1. **Inadequate accessibility:** There is a tendency during a crisis to focus internally, circle the wagons, and engage in internal decision making. This may make your organization seem inaccessible and its response efforts seem not transparent.
2. **Lack of plain language:** Retreating into jargon is a natural response and officials use it in high-stress situations. It may frustrate stakeholders who simply need to understand.
3. **Lack of empathy in the response:** Stakeholders need to know that response officials understand at a very human level what stakeholders are experiencing.
4. **Problems with timeliness:** Are you providing information too little or too late? Time is always critical in a response, and the natural tendency to wait to get all the facts before issuing a response can make matters worse.
5. **Paternalistic attitudes and coming across as arrogant:** Do you value your stakeholders or do you express a "we know what's best for you" attitude? In a crisis, stakeholders often feel disenfranchised and powerless. They may be particularly sensitive to responses they see as arrogant.
6. **Lack of opportunity for input into decisions:** Those who have been most affected by a crisis want a voice in key decisions. The opportunity for input can help offset feelings of being powerless.

Key internal and external stakeholders require timely and accurate information that meets their specific needs. They must have opportunities to be heard and offer input. Several helpful strategies are listed below:

- Make sure appropriate messages are tailored to your specific stakeholder audiences.
- Use audience assessment tools and worksheets, such as the stakeholder reaction worksheet at the end of this chapter. They will help you sort through audience needs, values, issues, and preferred means of communication.

- Consider the relationships you have with specific stakeholders. Some stakeholders are dependent on you. Some may have the ability to directly influence how you conduct your public health business.
- Focus on a set of concerns and reactions common to various stakeholder groups. Address these universal issues.

Certain communication strategies may help minimize negative reactions. Focus on factors that inspire trust:

- Express empathy.
- Show competence in core areas of expertise.
- Encourage stakeholder feedback and information exchange.
- Be honest and sincere in your communication and actions
- Establish a long-term commitment through a steady visible presence.

Trust may be assessed and given swiftly during the early stages of a crisis. However, that trust may quickly erode if information is inaccurate, inconsistent, or overly optimistic.

To maintain good relationships with your stakeholders, do the following:

- **Do not underestimate risk:** Your organization might estimate the risk to be lower than it actually is, and you might wind up having to say it is "more serious than we thought." This underestimation may damage your organization's trustworthiness and credibility. On the other hand, your organization's reputation may be less damaged if you overestimate the degree of risk. People prefer to hear "the incident is much less serious than we thought."
- **Pay attention to organizational process:** When possible, involve the affected community in action planning.
- **Explain your organization's procedures with care:** Be prepared to describe the organization's mission, tools, and methods used to provide service.
- **Describe the desired outcome:** Explain to your stakeholders what factors make a successful response effort. This will include desirable outcomes, such as fewer deaths, decreased infection rates, and establishing systems to detect secondary outbreaks. Be open with your stakeholders to help clarify issues.
- **Promise what you can deliver, then follow through on commitments:** Under the pressure of scrutiny and the desire to fix or mitigate problems, you may be tempted to guarantee outcomes. Public commitments can create serious problems and should only be made after very careful consideration. Make every effort to get back to your stakeholders to ensure them that you have kept your promises.

- **Remain forthcoming with information:** Focus on building trust and providing good technical information. After identifying key stakeholders, determine their interests. Provide information that meets the needs of the people involved.
- **Consider your method of communication and its impact on trust:** Ask yourself, if it is possible to satisfy stakeholders' needs with mass e-mails or faxed messages, or is it necessary to make phone calls or hold special meetings to ensure continued understanding and support?

Coordinate your messages with other responding organizations before reaching out to stakeholders. You need to make sure that messages are consistent and that it is possible to accomplish key goals. Stakeholders may also be stakeholders of other responding organizations. Power struggles or visible confusion among organizations will reduce the credibility of all the players and frustrate stakeholders.

The following tips are not needed for all stakeholders, but if used will help you maintain good two-way communication:

- Designate stakeholder-specific meetings.
- Create specific Web pages for partners and key stakeholder groups.
- Provide quick updates through microblogs, e-mails, and text alerts.
- Designate stakeholder liaisons.
- Hold telephone calls that include management or management representatives.
- Provide information releases on the background of the organization and the incident.
- Provide periodic updates relevant to stakeholder interests.

Assessing Stakeholder Reactions

Part of stakeholder communication strategy involves identifying and describing the advocates, adversaries, and those who are ambivalent. Know your audience:

- Identify what they want to learn and their likely reactions.
- Project the full impact, the political or financial effect of their reactions.
- Identify stakeholders whose reactions will have the greatest impact if the crisis escalates.
- Forecast the involvement and response of top management.
- Develop a management strategy for likely reactions by key stakeholders.

Responding to Your Stakeholders

In your CERC plan, include the goals for communicating with advocates, adversaries, and ambivalent stakeholders. First understand the relationship of the stakeholder to the organization and the event. Understand the general goals of the stakeholder group, such as what they want to achieve and what outcome they desire.

In thinking through your CERC plan, consider how actions, decisions, and messages will be perceived by various stakeholder groups. What might shift their views? For example, during the 2009 H1N1 influenza pandemic, CDC originally posted guidance for schools that advised they close if they had a suspected or actual case of H1N1 flu. This guidance was provided to lessen the risk of spreading the virus into their communities.

However, more information became available suggesting a lower risk of severe illness and death from H1N1. In addition, communities provided feedback saying that closing schools placed a burden on parents and their employers. Parents had to arrange child care or stay at home with their children. In response to this new information, CDC changed its recommendation 6 days after the first notice.

Stakeholders' reactions, and whether they are advocates, adversaries, or ambivalents, will vary based on several factors:

- The level of disruption they experience and the specific nature of the disruption
- Past history of interaction and the reservoir of goodwill
- The level and form of impact (short term or long term, minimal or severe)
- The level to which stakeholders depend on your agency and vice versa
- Perception of common goals, interests, and values
- Perception that your organization and stakeholders are all in the event together and share a common fate

When designing message strategies, consider the following:

- Address common concerns and reactions.
- Identify strategies that minimize negative reactions.
- Engage in confidence-building actions and communication.
- Fulfill commitments to develop trust.
- Offer consistent themes and messages.
- Use pre-emptive and proactive communication to address emerging or anticipated issues.
- Consider plans to provide advance notice to important audiences.
- Prioritize stakeholders according to the type of emergency.

Partnership Development

A partner may be defined as anyone with a role in aiding in the crisis response. Almost all crises require partners and close coordination among partners for an effective response. Most crises are too large or diverse for any one agency to manage alone.

Partner relationships should be developed in advance of the crisis. One of the best methods of building partnerships is to start with informal relationships through community, social, and professional networks. A number of networks have been developed to bridge the divides within public health, including local emergency planning committees (also known as LEPCs), liaison groups, and joint exercises. Strong, collegial relationships can be invaluable when emergency coordination is required. Base partnerships on a common purpose of serving the community, on mutual needs, and shared understanding of what is necessary during a crisis.

Each potential partner should play a specific role during a crisis. This role should be determined and agreed upon before a crisis situation occurs or, if necessary, in the first few hours of a crisis. It is helpful to assess what each partner brings to the table, including strengths, weaknesses, and unique abilities.

Your partner organizations will most likely choose a representative. That person should be someone who will execute the partner's role and has the authority to make decisions and speak on their organization's behalf. Usually this person is not the head of the organization, but typically will keep his or her leadership informed.

The following are tips for developing partnerships:

- Design plans for building relationships before the crisis.
- Look for opportunities to interact with the partner organizations.
- Create a partner contact sheet with every available phone number (work, home, cell), e-mail address, and website address. Obtain permission to contact the people by any means necessary during an emergency.
- Draft a plan for partner communication during a crisis upon which all partners agree. This plan should outline methods such as using e-mail and text alerts, twice-daily faxes, and conference calls.

Reality Check

Despite every good intention to allow partners a preview of a press statement or press release, it may be impossible to do so. With some time-sensitive issues, it is important to consider the increased possibility of leaks. You may choose not to share.

If you cannot give partners a preview, consider doing one of the following:

- Tell partners to expect a release on a subject.
- Ensure that they get the release and any supporting documents at the same time as the media.

Coordinating with Partners

Crises almost always require a joint effort between multiple agencies and organizations working together. Coordination is one of the most important challenges to effective partnerships in an emergency. One definition of crisis coordination is "mutually agreed upon cooperation about how to carry out particular tasks."[3] An example of a method for crisis coordination is a memorandum of understanding (MOU) that crisis response partners create to predefine their roles and responsibilities during a crisis.

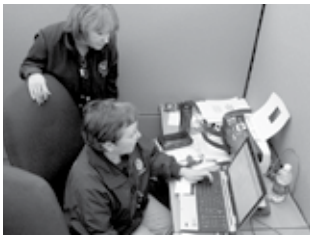
A common problem with crisis coordination is the Robinson Crusoe Syndrome. This is when partners focus on their own tasks, and work independently in response to a crisis instead of focusing on the bigger picture and how their tasks fit into the overall response.[4]

Three perspectives regarding disaster response coordination have been described. These are the bureaucratic perspective, the structural perspective, and the network perspective (see Table 7–1).

1. **Bureaucratic method:** This is a "top-down" system, such as the National Incident Management System (NIMS). Coordination is achieved through highly centralized systems where decisions and activities are determined at the top and flow down to lower levels. As described in Chapter 4, NIMS is a standardized, universal on-scene, all-hazards incident management approach that is scalable and can be applied to all incidents. The NIMS approach is required when federal dollars are being used in a response.
2. **Structural systems:** These describe specific areas of expertise or domains. Each agency may have a specific area of expertise they bring to the incident. Each agency works within their specific area or response. For example, police deal with issues of public safety, public health officials focus on health-related issues, and the Red Cross focuses on providing shelter and immediate support for victims. Because each agency knows its domains of activity in advance, it is able to respond more quickly with little direction.

3. **Networked coordination:** This uses a system of linked and integrated agencies where information is shared. Networked coordination requires ongoing communication and interoperability between communication systems. As information about various activities flows between agencies, ongoing decisions can be made about which agency is doing what, where, and with what success. Networks may emerge around a disaster as needs and conditions become clear. Sometimes, networks are spontaneous and can incorporate many community groups and organizations involved in the response.

Table 7–1. Summary of Three Perspectives of Disaster Response Coordination

Coordination Perspective	Philosophy	Example
Bureaucratic	• Command-and-control response to chaos in disasters • Top-down and centralized • Rigid, universal, hierarchical structure	Incident Command System (ICS)  *Photo courtesy of FEMA/Christopher Mardorf*
Structural	• Disaster response is a blend of elements of structure (domains and tasks) and agency (resources and activities) • A range of different organizational forms created on continuum from formal organizing to collective behavior.[5]	Response to the attacks of September 11, 2001 *Photo Courtesy of FEMA/Andrea Booher*
Networked	• Networks of organizations are formed to respond to a particular disaster based on needs and situation. Two types: 1. Emergent multi-organizational networks[6] 2. Joint information centers, or JICs • Network structures are flexible and fluid to determine the most successful strategies and organizations necessary.	CDC's JIC

Differences Between Crisis Coordination and Crisis Collaboration

Crisis coordination and crisis collaboration are different. Understanding the distinction between the two is important. Failure to understand this distinction sometimes becomes a source of conflict. Different organizations have assigned different meanings to the word "coordination." Sometimes they refer to "coordination" when they are really talking about collaboration.

There are at least three ways the term "coordination" can be used by disaster response groups:[3]

1. Coordination can be as simple as informing others about what an organization will be doing in response to a crisis. Often, this is effective, but can create the impression that one group or agency is "going it alone."

2. Coordination may also be seen as centralizing decision making within a particular agency or with key officials. In such cases, managers control the response, and coordination is a function of a centralized authority.

3. Coordination may be seen as based on mutually agreed upon cooperation that is sometimes negotiated. Participating groups reach an agreement on how to carry out crisis response tasks. In these cases, groups and agencies share authority.

When partners come together to respond to a disaster, they may become easily frustrated with one another because they feel other partners are not coordinating with them. They may be really looking for some form of collaboration. These are different:

- **Crisis coordination:** This implies a minimal level of involvement between organizations to achieve synchronized crisis response and mitigation.
- **Crisis collaboration:** The term "crisis collaboration" suggests a deeper alliance where each values the other's interdependence, and promotes equal input of participants in shared decision making.[7] Collaboration is based on shared goals of effective crisis response and mitigation, shared values, and usually a longer history of interaction.

Differences in meanings of coordination among partners can be a source of conflict and tension. This can result in problems concerning the following:

- Information sharing
- Resource sharing
- Decision making
- Trust

In pre-crisis planning meetings with response organizations, discuss and clarify the goals of a crisis response. Also be sure to determine what crisis collaboration and coordination mean. This will lessen potential conflicts, lead to more effective communication with stakeholders, and enhance the ability of response organizations to create consistent messages.

Working with Communities

Community Partnerships

Community leaders and institutions, such as schools, community organizations, religious groups, and major employers can be valuable partners in supporting public health strategies, distributing information, and countering rumors surrounding an event.

> *"When your whole community is in crisis, things really do change. People step up."*
>
> *Leng Caloh, Interactive Strategies Manager, KPBS San Diego*

These partners may be familiar, trusted, and influential with the target audience. Community partners may be more likely than the media alone to motivate the public to take recommended actions. Partners can reach groups of people in settings with which they are familiar. In addition, many public health strategies, such as social distancing and vaccination, require the support of institutions.

Establishing these partnerships requires ongoing interaction and mutual trust. In pre-event planning, make an effort to reach out to these groups:

- Use MOUs to engage partners as information distributors during a public health emergency.
- Supply partners with background information before or soon after an emergency occurs.
- Work with them to determine the best role for your partner organization or institution to take and the best way to reach their target population.
- Develop fast and reliable channels of communication that provide information directly to these community leaders so they will have facts ready when their constituents begin to ask questions.
- Invite partners to tour emergency facilities.
- Include them in training drills and exercises.
- Brief community partners on such issues as the strategic national stockpile, available state and local assets, social media strategies, public health emergency laws, and response strategies.

Consensus Building

Controversies will inevitably develop around a crisis. These often require engaging stakeholders and partners in building consensus. Controversies should not be negotiated through the media. Instead, engage a neutral third party to speak for the diverse group and help resolve differences. Neutral parties can do the following:

- Speak to the media on behalf of all involved.
- Facilitate a face-to-face meeting.

- Express both consistent and inconsistent points of view held by the entire group in an effort to find and build consensus.
- Engage the public in community forums, create task forces or advisory groups, and practice effective listening.

Convening a Community Forum

A community forum is a meeting, sometimes open to the public and media, and other times limited to invited participants. In these meetings, people who have particular experiences or insights share their knowledge and perspectives. These meetings can help build positive stakeholder relations by doing the following:

- Sharing information
- Seeking input
- Demonstrating openness
- Building consensus

In addition to the strategies presented for managing public meetings in Chapter 5, community forums may benefit from a facilitator. A professional facilitator should be comfortable with the culture of the community and perceived by all sides as neutral.

An assessment can determine which stakeholders or partners are associated with the issue. Representatives from all elements of the community should be considered, not just those from a vocal advocacy group. You should also consider inviting community leaders and participants with particular subject matter expertise. Make sure someone takes careful notes.

In some cases, an online forum may be used. This system allows for discussions in real time or over an extended period, and can include offsite participants. This technique also generates a transcript of the conversation for your records.

Task Forces and Advisory Groups

Sometimes, it makes sense to have stakeholders and partners participate in deliberations through a more structured, long-term process. Advisory groups or task forces, composed of carefully selected representatives of stakeholder groups, can be an effective way to build consensus. Be sure to provide a carefully developed charge or mission statement to the task force.

If you create a task force or advisory group, you have an obligation to take their suggestions and input seriously. The group expects you to do so. The decision-making processes of these groups can be facilitated using the following steps:

- Define the problem or issue, including its scope.
- Define the scope, or charge, for the advisory group.

- Identify available options.
- Present all known information about alternatives.
- Analyze the costs and benefits, weaknesses and strengths, and pros and cons of each alternative.
- Establish criteria for a solution, including the "must" versus "want" criteria.
- Be able to express why one alternative was chosen over the others. The chosen alternative will be such that the highest number of people will be helped with a minimum disruption to self-reliance and community sovereignty.

Effective Listening

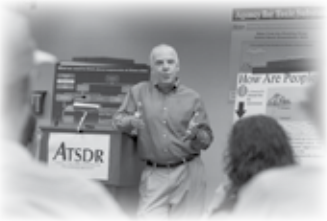
Active listening during a public meeting or community forum can help facilitate understanding of the partners' needs and demonstrate a commitment to the relationship. The first step in reaching consensus on debated issues is to understand the various viewpoints. Asking questions can demonstrate interest and prompt the audience to give you useful feedback. Although active listening is a skill requiring practice, some keys for using active listening in public meetings include the following:

- Manage the flow of conversation carefully by calling on people one at a time.
- Listen for both intent (feeling) and content (facts).
- Ask questions to make sure you understand and indicate your interest in what is being said.
- Pay attention to who is speaking:
  - What are his or her qualifications on this subject?
  - Does this person have underlying motives?
  - Is this person speaking as a representative of other groups, such as a community leader or member of an advocacy group?

Dealing with an Angry Public

Controversies will arise when risks are uncertain because science has not provided an answer or brought stakeholders to a consensus. Add to this the need to make decisions under the enormous time pressure of a crisis, and the uncertainty may seem unbearable to response officials and the public. When science cannot lead to a clear path, decision makers must make choices about what is and is not acceptable. In pressure-free environments, the public may turn to the courts to settle differences about the amount of acceptable or perceived risk.

A crisis creates an imperfect environment for making wide-ranging decisions. Decisions about important issues must be made in minutes, not months. The fallout can be harsh, especially after the crisis is resolved and the decisions are reviewed with the power of hindsight.



The struggle of imposing some risk on individuals or suspending some civil liberties to protect the larger community may be great. In such cases, empowering the public is even more important.

At the community level, empowerment may mean a face-to-face meeting with stakeholders. Building community consensus is the best way to advance compliance with public safety requirements before and during emergencies. Anything less might invite public mistrust of institutions or government agencies responding to the crisis. Public forums can diffuse anger and help the community work toward a mutually agreeable solution to a common problem.

Communication experts and psychologists point out that anger is a defensive response to pain or the threat of pain.[8,9] Three basic circumstances can give rise to anger:

- When people have been hurt
- When people feel threatened by risks not of their own making
- When people sense their fundamental beliefs are being challenged

The intensity of that anger can be confounded by other factors. For example, when people feel powerless, their anger may be more intense. When people feel that they have not been treated fairly or with respect, they are likely to become angrier. If they have been manipulated, trivialized, ignored—or worse still, lied to—anger and a sense of unfairness will build. However, bear in mind that public displays of anger may be a form of manipulation by another party, especially in public settings. Some will use anger to bully others into accepting certain demands.

Avoid defining anger as either rational or irrational. Such an assessment is judgmental, counterproductive, and truly in the eye of the beholder. Don't label others as irrational because you may then feel justified in dismissing them, which will only heighten their sense of injustice.

Allow the Audience to Participate in Finding Solutions

Lectures are generally an ineffective way to communicate about a risk. They generally do not help to address a risk or crisis during a public meeting. A lecture as a one-way form of communication does not engage the audience. Telling is easy; asking and listening is harder. Asking questions is a deliberate action. It forces the process to slow down and forces everyone to stop and think before replying.

Instead of attempting to persuade individuals or community group to take an action, allow them to persuade themselves through a self-discovery process. The key is to not give the solution but help your audience discover the solution through the help of information.

How do you help an audience discover its own answers?

- Ask the right questions.
- Receive feedback.
- Offer the right information.

Using feedback as your tool, ask the audience questions that will create awareness about the situation. Empower them to make a difficult choice. A person who comes up with his own answer, while speaking with his own voice, will often take ownership of that idea. It's better for you to ask a leading question than to make an interpretation. The right questions can help an audience make the necessary connections. This strengthens the audience's tendency to take ownership for the insight.

For example, if an outbreak of a severe communicable disease occurs, emergency response officials may be faced with the challenge of temporarily suspending civil rights to limit the spread of disease. An extreme public health scenario would be to quarantine individuals or communities. A population that understands the need to quarantine will be more likely to uphold the quarantine requirements and support this decision.

Questions to Help People Persuade Themselves

To help people find solutions through self-persuasion, start with broad, open-ended questions, such as the following:

- What challenges have you (or your community) faced that required consensus building to solve the problem?
- How did it go?
- What did you learn from those experiences?
- Were there difficult choices to make?

Feedback from the audience is critical, not only to get information, but to demonstrate openness. Ask questions to discover the explicit wants, needs, and desires of the audience:

- What is most important to you (or your community) when faced with a problem to solve?
  - Is it consensus building?
  - Is it putting the greater good for the greater number first?
  - Is it avoiding conflict?
  - Is it that the solution is fair and equitably distributed?
  - Is it ensuring everyone has a voice and was heard?
  - Is it that reasonable alternatives be fully explored?

When issues and concerns are presented in broad, general terms that are hard to address, ask questions that are more specific to the audience:

- What are the ramifications to you (your family, your community, or the nation) when faced with this current problem?
- What consequences are you hoping to avoid?
- What do you see as the worst outcome for you (or your community)?
- What courses of action do you believe could lead to this outcome?

Questions that encourage audience members to state the benefits they would like to see result from a course of action may promote understanding of anticipated outcomes:

- What benefits would you (or your community) expect if this disease did not spread further?
- Because you have brought up quarantine, what benefits would you (or your community) expect if you accepted quarantine as a course of action to reduce spread of disease?
- Understanding and expressing the benefits makes it easier to demonstrate how a strategy can solve the problem. In addition, strategies may be refined once benefits are understood. Ask questions about the benefits while looking for the right solution:
- From what I understand, you are looking for a way to protect yourself (or your family or community) from more illness or death. If I can explain how quarantine will meet those needs, are you open to implementing it?
- If you think quarantine would work in this effort, how do you see the quarantine being explained to the entire community?

Allowing people to persuade themselves is not an easy process. Done poorly, it can seem condescending or manipulative. It takes practice and empathy, but it's worth the effort. It is the most effective way to gain your audience's acceptance in thought and behavior.

De-escalating Conflict

Conflict is natural and to be expected during a crisis or emergency.[10] It can also impede the ability of stakeholders and partners to work effectively with agencies. You can de-escalate using the following approaches:

- Begin de-escalation by trying to agree on issues that may not be key to the conflict. Do not start with the hot button issue, the one where people are not willing to concede.
- Find the elements that bring some agreement among both groups. This can help as a strategy and can help build trust.
- Establish guidelines for interaction and make an effort to humanize each side for the other.
- Look for common interests upon which to base a common dialogue.
- Remain open to reason, and allow yourself to consider that you might be wrong.
- Strive for fairness in the process, especially where a real or perceived lack of fairness or injustice has occurred.
- Work to get input from all stakeholders.
- Try to agree on actions that will be taken, however small, such as having a subsequent meeting.
- Give decision-makers and others with influence in the community open access to complete scientific information.

Try to get as many "yes" responses as you can. If someone says, "Your proposal is totally unrealistic," try this response: "Are you saying that you don't see how this proposal can respect citizens' rights and stop the spread of disease?" When a person says "yes," this transforms the relationship. Each question you offer that allows a "yes" answer from the other side further reduces the tension.

Don't Say "But." Say, "Yes, and"

Typically, people express their differences by prefacing their responses with "but." The other group will be more receptive if you first acknowledge their views with a "yes," and then preface your view with an "and." For example, you might say, "Yes, we want to protect people's rights and we want to keep them alive to enjoy those rights."

Conclusion

Stakeholders are people or organizations that have special connections to the agency, the issue, affected members of the public, or the specific emergency. Partners are agencies and groups who will be assisting in a response. Often, stakeholders and partners emerge within the context of the specific response.

Communicating effectively with partners and stakeholders is critical to managing an emergency. Often, this means careful coordination and collaboration as well as ongoing, two-way interaction, even in circumstances where stakeholders are upset and angry.

Specific communication strategies may help manage some of the anger and concern that are natural in these circumstances. They will create strong, manageable, long-term relationships among your organization, your stakeholders, and your partners.

Worksheet 7–1. Stakeholder Reaction Assessment

Stakeholder group .....

Relationship to the agency .....

Relationship to the event .....

Nature of likely reaction: ❑ Advocate ❑ Adversary ❑ Ambivalent

Values: .....

.....

Interests: .....

.....

How central is this stakeholder group to the agency or the event? .....

.....

Likely initial reaction? .....

.....

Turning point(s) in their likely reaction? .....

.....

What would cause a change in position? .....

.....

Key messages: .....

.....

.....

.....

.....

Key contacts: .....

.....

Opportunities for feedback and interaction: .....

.....

Steps for using feedback: .....

.....

Strategies to inform and involve stakeholders: .....

.....

Information to provide: .....

.....

Services and products to provide: .....

.....

Contact updates: .....

.....

Date, with whom, and how: .....

.....

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Notes:

CRISIS EMERGENCY RISK COMMUNICATION
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Chapter 8: Other Communication Channels

Chapter 8: Other Communication Channels

The following topics are addressed in this chapter:

- Communication channel attributes
- Channel characteristics and features
- Applying specific communication tools

Selecting and Using Communication Channels during a Public Health Emergency

There are major communication issues beyond working with the media that must be addressed in preparation for crises. At the community, state, and national levels, the public expects access to the government during an emergency.

Effective ways to provide access includes the Web, e-mail, social media, and toll-free information telephone lines. As the public health crisis evolves beyond the first 24 to 48 hours, the demand increases for information outside traditional media channels, such as radio, TV, newspaper, and websites that provide news.[1] Choosing the right communication channels to reach your target audiences is crucial to the public's health and safety. The public information official must select the right delivery methods for a particular set of circumstances.

Communication Channel Attributes

Channels of Communication during a Crisis

A channel of communication is simply the way a message is carried. In a crisis, messages are delivered in many ways. Message delivery might be low-tech, such as handwritten flyers or messages painted on buildings during floods. Message delivery may also be high-tech, such as two-way Internet channels used with social media.

Selecting the appropriate channels and methods for communication is important for reaching your target audiences. This is especially important with health risk communication, where participants can quickly feel excluded if they do not believe they are getting adequate information in a timely manner.

More and more, audiences are fragmented, turning to specialized and localized outlets for news and information. In addition, different channels of communication have different strengths. Newspapers are excellent for reporting detailed investigations and in-depth news. Television delivers information very

quickly and can present the visual elements of the story. Some channels are more interactive and even personal, such as telephone or call-in talk radio. Television, radio, telephones, and the Internet may have a wider reach but require working infrastructure, which may be damaged during emergencies such as in a hurricane, flood, or tornado.

The Demographics

According to a 2010 Pew Center study, about 92% of Americans use multiple channels of communication for news, and 59% use both online and offline news sources. Unlike offline news consumers, most of the online news readers use only a handful of favorite sites, and 35% use a single news site.[2]

News today is often described as portable, personalized, and participatory:

- About 33% of mobile device owners get news on their devices.[2]
- About 28% of Internet users have created personalized news options.[2]
- About 37% of Internet users report that they have created or reacted to a story online.[2]

Internet news users are younger, more affluent, and better educated.[3] Poorer and older audiences, those most vulnerable during a crisis, are less likely to receive their news from the Internet.[2,4]
For many minority audiences, specialized news sources are particularly important. More than 3,000 ethnic media organizations operate in the United States, serving an audience of 57 million.[5] Many of these organizations are small foreign-language outlets, newspapers, cable news shows, or local radio programs.[2]

Channels can be classified in the following ways:

- Face to face, such as health-care professional to patient, organization's staff member to state partner organization, and organization's staff member to individuals in the community
- Group delivery, such as communicating to a small group and participating in smaller public meetings
- Public communication, such as public presentations to larger meetings
- Organizational communication by response stakeholders and partners, via organizational messages, web pages, and publications
- Mass media, such as radio, television, newspaper, and direct mail
- Social media, such as Twitter, Facebook, and YouTube
- Community, such as employers, schools, malls, health groups, and local government agencies
- Word of mouth

Your communication strategy should use a combination of any or all of these to reach a broad audience. During a crisis, use as many channels as possible. It is important to ensure the widest distribution of messages. In these cases, it is important to have close coordination and overall consistency of messages between channels. While messages will need to be adapted to the selected communication channel, consistency is key.

Channel Characteristics and Features

Multiple Options Available

During a disaster, television and radio are most widely used because they are the most immediate channels of communication,[6] but online channels are also used:

- Radio reports are nearly real time as people call in with reports of news.
- Many radio and TV stations have very close community connections, and are able to serve the needs of the community during a crisis.
- Social media channels are increasingly important. In many cases, the first news of a crisis will probably be shared via Twitter or Facebook.
- YouTube videos made with cell phone cameras can also be expected for many crises. (Social media will be discussed more fully in Chapter 9.)

As people try to connect with friends and family, word of mouth becomes an important form of crisis communication. They want to learn what others are doing in response to the crisis. Crises have a powerful emotional impact on people, and they often want to share the experience with friends and family as well as confirm that others are safe.

Crisis, in many cases, become news stories. One study of the September 11, 2001, attacks found that by noon that day, 99% of the respondents had heard of the attacks and approximately 91% turned to the media for more information. Most of them used television. The average viewer watched 8 hours of television coverage the day of the attacks. Word of mouth, television, and radio were the most common channels for learning about the attacks.[7]

KPBS Radio and the 2007 San Diego Wildfires[8]

In October 2007, a series of wildfires in the San Diego region burned more than 800 square miles, destroyed 2,200 homes, and caused the evacuation of millions of people. The local public radio station, KPBS, had covered such crises before, such as the 2000 wildfires and the 2001 shooting at a local high school. KPBS became the primary news source for the community thanks to its forward-thinking crisis-coverage plan and use of online technologies.

Along with 80 hours of continuous live coverage, KPBS used an interactive Google map, cell phone alerts using Twitter, and Flickr photos to chart the fires' paths and to update information about relief centers and evacuation routes. The information came from the station's reporters, emergency authorities' news releases, and residents' call-in reports. The radio station and its online website soon became the definitive wildfire news source, receiving more than 132,000 visits per day.[8]

Other organizations recognized the radio station's coverage and stepped in to help. When KPBS servers got overloaded, Google offered to host its Google map and increase its bandwidth. When the station's radio tower was consumed by the fire, it still streamed their broadcast online and a local FM radio station agreed to switch over and carry KPBS' news feed.

A study of those residents affected by the wildfires showed the impact of KPBS' coverage. One citizen commented, "I used KPBS' Twitter page and their excellent Google map overlay. Listened to KPBS via an Internet stream when their radio transmitter burned."[9] People felt that KPBS was a timely and accurate source of local information and appreciated its use of social media and online streaming broadcasts when other traditional news formats became compromised. KPBS' cutting-edge coverage and close ties with the community made the station a credible and trustworthy news source for the public.

Questions to Ask When Selecting Channels

- Which channels are most likely to reach your target audience?
- Which channels are most appropriate for the health-risk problems, issues, and messages?
- Which channels will be most accessible given the specific event?
- Which channels will the target audience find credible?
- Which channels will deliver the message in the appropriate time frame?

- Which channels fit the program's purpose? (Are you trying to inform, influence, allay fears, sway attitudes, or change behaviors?)
- Which channels should be used and how many channels are feasible, considering the schedule and budget?

Telephone Call Centers during an Emergency

The telephone can help your organization keep in touch with audiences during a crisis and allow for transparency and feedback.[10] Typically, a crisis response will include some form of toll-free hotline to a call center where the public can call with questions. Consider the following when planning for toll-free number services:

- Decide between rapid expansion of an existing phone number or a new toll-free number generated specifically for the emergency.
- Make sure the service is expandable in terms of number of calls managed per hour or day and the hours of operation.
- Make sure the toll-free number is answered by trained people who reassure callers, provide requested information, and can refer callers as needed.
- Make precleared materials on multiple subjects easily accessible during an emergency.
  - Confirm that your materials are specific to the emergency and the community.
  - Make certain they are easy to read and understand. Use plain language.
  - Have them available in multiple languages based on community needs.
  - Field test them during your pre-crisis phase for word choices, readability, cultural sensitivity, and other preferences.
- Establish standards of performance and evaluation, such as customer satisfaction, response capacity, and accuracy.
- Call managers must be able to quickly integrate new information into their responses during an emergency.

E-mail Services

Many organizations include a public e-mail response option.[10] Consider the following in advance:

- At the start of the e-mail response service, publicly state how long it might take for members of the public to get a response to an e-mail. Response time frames such as 2 hours, 24 hours, or within the same week are helpful.

- Provide a way that is faster than the standard e-mail response service for the public to reach the organization if the need is more urgent.
- Advise people to contact their health-care providers or 9-1-1 for a personal medical emergency.

Social Media

Social media channels are increasingly important. The first news of a crisis may be reported through them. For example, within one week of the 2010 Haiti earthquake, more than one in 10 Americans, including 24% of those younger than 30, say they received or shared information about the Haiti earthquake through Facebook, Twitter, or other social networking sites.[2]

Social media may provide opportunities to reach members of the public. Even though social media are increasingly used by organizations during an emergency, the public uses these channels on a much greater scale to seek and share information just after the event. People who join and use Twitter during a crisis or disaster are more likely to adopt long-term use of the technology.[11] This approach is useful in communicating the most up-to-date information to the public during a crisis.

Applying Specific Communication Tools

Making Your Selection

The tools you use will depend on your audience and the situation:

- What channels are available (after a fire, tornado, power outages, etc.)?
- How does your audience prefer to receive information?
- How do you wish to provide the information using your available channels?
- What are your overall goals under the present situation?

Following are tools that may be useful during an emergency. They include briefings, community mailings, exhibits, flyers, newsletters, open houses, presentations, public meetings, focus groups, and personal telephone contacts.

Briefings

A briefing is a session with many state and local officials, media representatives, and community leaders.[10] Briefings help to inform them of response-related developments at the site, such as results of studies or actions that should be taken to protect health. You can use a briefing to introduce your organization and explain its role and work process. Briefings are not usually open to the general public in the manner of an open house.

Conducting briefings:

- Schedule briefings in a small public room, in a neutral location, such as a hotel meeting room or a conference room.
- Prepare a fact sheet or question-and-answer sheet.
- Present a short, official statement about the agency's findings, health concerns, or recent developments.
- Use simple language. Avoid jargon, acronyms, and overly technical terms.
- Answer questions about the statement.
- Work with other organizations to coordinate briefing plans.

Benefits of briefings:

- Briefings allow state and local officials, the media, and community leaders to ask questions about any activity before the public release of information.
- Briefings prepare officials and citizen leaders to answer questions from their constituents when the information becomes public.
- Briefings allow for the exchange of information and concerns.

Limitations of briefings:

- Although briefings can be effective, they may become the only means of communicating with site-specific communities. Make sure they are followed by activities to inform the general public, such as small group or public meetings.
- Be aware of negative feelings or bad publicity after briefings as a result of leaving people out who believe they should have been invited. Be sure not to exclude such persons or convey the perception of favoritism.

Community Mailings

A community mailing is a way to send information to key contacts, and concerned or involved members of the community. Mailings disseminate information easily, in writing. They are particularly useful when there are updates for the community.[10] However, many crises disrupt local mail service and can delay or impede mailings. As electronic forms of communication have grown, traditional mail delivery has become less popular and less expected.[12]

If the updates are straightforward, not controversial, and easy to understand, the mailing can stand on its own. However, if the updates are more complicated and require discussion or further explanation, the mailing should be made in conjunction with a public meeting or small group meetings. The community mailing can announce upcoming meetings and provide advance information or serve as a follow-up for people who did not attend previous meetings.

Developing a community mailing:

- Compile your mailing list, which should include the following:
  - State and local officials, who can be identified by checking with city, county, or parish officials
  - Community leaders, who can be identified by checking with the local chamber of commerce and other officials
  - Leaders from faith-based organizations (FBOs), businesses, nonprofits, schools, civic groups, and nongovernmental organizations (NGOs)
  - Local residents of the site area, who can be identified by checking with the city clerk for assistance
  - Community members who have signed up to receive information
- When creating mailing materials, do the following:
  - Provide a cover letter that introduces you, briefly explains the purpose of the mailing, and provides contact information for comments or questions.
  - Include a fact sheet, newsletter, report, or other documents as well as suggestions about where to get additional information.
  - Keep materials simple, focused, and encourage plain language. Plain language (also called plain English) is communication your audience can understand the first time they read or hear it.[13]

Benefits of a community mailing:

- May require less planning time than a meeting
- Allows for coverage of an entire geographic area, such as every household in a specific postal zip code

Limitations of a community mailing:

- It is not as quick as electronic methods of delivering information
- Mailings allow no interaction or opportunity for community members to ask questions.
- Residents may not read the mailing.
- Mailings are only an option if mail service is available.
- Large mailings may present logistics concerns and cost challenges.

Exhibits

Exhibits are visual displays such as maps, charts, diagrams, or photographs and can help illustrate issues and proposed actions.[10] Effective exhibits can make technical information accessible and understandable. Exhibits can be used during any phase of site work and can be installed in locations where there is high traffic or where specific target audiences may be reached.

Creating an exhibit:

- Identify the target audience, such as the following:
  - The general public
  - Concerned residents
  - Media representatives
  - Public officials
  - Community leaders
- Include specific messages, such as the following:
  - Descriptions of a specific health risk
  - Remedies and actions to protect community health
  - Processes or methods, such as how to file forms or claims
  - Historical background information related to the issue
  - Community relations activities.
- Decide where it will be placed, preferably in a highly visible location, such as an evacuation center, public library, convention hall, or shopping center. This is especially applicable when residents are your target audience.
- Set up a temporary exhibit at a public meeting if a segment of concerned community members is the target audience.
- Design it according to the message to be transmitted and include photos or illustrations. Use text sparingly. A bulletin board could suffice, if appropriate.
- If possible, staff the exhibit with someone to answer questions, guide people through complicated issues, and gain feedback.

Benefits of an exhibit:

- Stimulates public, partner, and stakeholder interest and understanding
- Creates visual impact and leaves a lasting impression
- Provides a physical presence for an agency

Limitations of an exhibit:

- If not staffed, will be a one-way communication tool that does not provide an opportunity for community feedback
- May become obsolete if circumstances change
- May be damaged or changed
- Takes time and can be expensive to produce

Flyers

A flyer is a brief statement, usually one page, sharing current or proposed activities, announcing or clarifying some activity, or seeking or presenting some specific information.[10] Flyers are appropriate whenever new information is available. They also can be produced and distributed quickly in response to emerging information and can be an effective on-site tool.

Flyers can be useful for the following:

- Introducing your organization and explaining its role
- Explaining specific health risks and guiding community members in precautionary health actions
- Announcing new findings or information
- Reaching audiences at public meetings or community gatherings
- Disseminating information when other channels are not available

Flyers contain the following types of information:

- Explanation of the triggering event that caused a health-risk situation
- Timetable for some proposed actions
- Description of health concerns or problems
- Description of recommended health actions
- Description of public participation opportunities
- Name, address, and phone number of contact person who can provide additional information on request

Create flyers following these guidelines:

- Select a simple, one-page format.
- Be clear and concise.
- Avoid jargon, acronyms, or highly technical language.
- Clearly identify the agency.
- Include the date the flyer was released.
- Include contact information for additional assistance.

Benefits of flyers:

- They briefly summarize key facts, issues, and actions.
- They provide background for information discussed during a meeting.
- They can be produced very quickly.
- They are low-tech and flexible.

Limitations of flyers:

- They are a one-way communication tool.
- They require careful writing and balance between the need to make technical information easy to understand and the need to deliver an accurate message.
- Your organization must have physical access to deliver them.
- They will require clearance.

Newsletters

A newsletter is a paper or electronic publication informing community members about activities, findings, health precautions, and other information.[10]

Newsletters are generally assumed to be ongoing communication tools. There is an expectation of more than one issue. You may need to structure them to include several articles on a related topic.

Newsletters topic areas may include the following:

- Overview of the agency and background of its involvement at the site or in this event
- An open letter from the director or agency head
- Plans for your organization's onsite work and findings, if available
- Health guidelines, if applicable

- A description of upcoming activities and previous organization activities that have taken place in the community
- Frequently asked questions and answers
- Contact information for the organization, as well as resources for additional information
- Timelines of key events

Consider the following in your newsletter design:

- Add dates and edition numbers to your newsletters.
- Use simple, easy-to-understand language with headlines, boxes, lines, type variations, and other effects to make the newsletter attractive and easy to follow.
- Establish a page limit.
- Use two colors if resources allow.
- Electronic newsletters can include links to other sites and sources of information.

Distribute the newsletter to the mailing list. You can also distribute it at public or small group meetings. If there is a central gathering place in the community, ask to leave copies there for community members. Place newsletters on your website.

Benefits of a newsletter:

- Explains activities and findings to the community
- Serves as a written document that community members can keep and refer to later
- Allows for multiple messages on a related topics
- Allows community organizations to become a central point for disseminating information

Limitations of a newsletter:

- Can cause problems if community members do not understand or are angered by the messages
- Does not give community members the opportunity to ask questions or provide feedback (Always include contact information in your newsletter so people have a way to ask questions.)
- Creates the expectation of ongoing communication
- Printed newsletters may be expensive and difficult to disseminate.

Open Houses and Availability Sessions

An open house or availability session is an informal meeting where community members can speak with agency staff one on one, in a more relaxed informal manner.[10] It is most appropriate when key milestones or major decisions have been reached.

Conducting an open house or availability session:

- Determine community interest in the site before planning an open house.
- Select a date, time, and location for the open house. To encourage attendance, choose evening hours or weekends at an easily accessible building familiar to residents, such as a public library or local meeting room.
- Anticipate the number of attendees and plan accordingly. Consider holding two open houses to enable staff to greet and talk with each attendee. One staff member per 15 to 20 attendees generally fosters an informal atmosphere for conversation and helps avoid the condition of speaking to a crowd.
- Publicize the open house at least 2 weeks before the event. Send announcements to newspapers, television stations, radio stations, residents on the mailing list, and any interested community organizations that publish newsletters.
- Create exhibits and fact sheets to provide background information. This enables residents to ask more informed questions during the open house.
- Include personnel that are prepared to discuss technical information in an easy-to-understand manner.

Benefits of an open house:

- Allows for one-on-one interaction and feedback.
- Creates the image of accessibility and transparency.
- Helps build trust and establishes a rapport between community members and agency staff.

Limitations of an open house:

- It requires extra staff time for planning and conducting an open house.
- Turnout may not justify the effort.
- Physical location may not be adequate.

Presentations

A presentation can be a speech to a community organization, civic or faith-based groups, businesses, nonprofit organizations, ethnic groups, schools, or similar local audiences.[10] Presentations often focus on such major milestones as accomplishments, research findings, or health recommendations. They may also serve as a way to create community interest and commitment.

Developing a presentation:

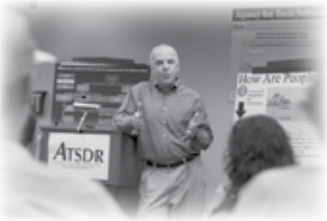
- Organize the presentation according to your goals and the information you have.
- Describe the issue and how it affects the audience.
- Talk about what the organization is doing to address the situation.
- Discuss how residents can assist and obtain additional information.
- Select materials to support the presentation, such as slides, graphics, and exhibits to hold the audience's interest.
- Conduct a trial presentation in front of colleagues and rehearse the presentation several times.

Benefits of a presentation:

- Offers the audience a chance to ask questions allowing the agency to gauge community concerns
- Reaches many people simultaneously, reducing individual inquiries
- Provides an opportunity to inform and persuade

Limitations of a presentation:

- Requires presentation skills
- If poorly presented, distorts your audience's view of the situation
- Can only address individual community concerns during a question-and-answer period following the rehearsed presentation, which could try people's patience
- Presenter may face difficult or argumentative questions from community members



Public Meetings

A public meeting is generally a larger assembly, open to the public, where experts present information and answer questions, and community members ask questions and offer comments.[10]

Arranging a public meeting:

- Develop an agenda with the involvement of residents and other interested groups.
- Hold the meeting in a public space, with a comfortable setting that is easily accessible, well lit, and has adequate parking and seating, especially for people with disabilities.
- Be sensitive to special needs of your audience:
  - Consider hiring translators for people who do not speak English.
  - Use sign language for hearing-impaired participants, if possible.
- Announce the meeting through local media outlets two weeks in advance if possible. Distribute flyers to community members and groups interested in attending. Announce the meeting through social media. Explain that the meeting is not a formal public hearing but, rather, a place to exchange information and comments.
- Follow up with members of the media closer to the meeting time to encourage attendance. Send a media alert, which contains brief information about the meeting date, time, and topic. Consider making phone calls to key contacts.
- Conducting the meeting:
  - State the purpose of the meeting then outline the agenda and the procedures for making statements.
  - Present preliminary findings and proposed courses of action.
  - Distribute materials, including fact sheets and other materials, for participants to take home or read ahead.
  - Prepare a transcript of the meeting, make the transcript publicly available, and announce how it can be obtained.
  - Have a finite time for the meeting.
  - Allow time for comments. Include a question-and-answer session. Meetings should last from 1 to 3 hours.

"There were town hall meetings in communities along the coast and we put together news releases. We put together talking points for our administrators and medical directors who worked in those communities. So they could speak on behalf of the state and on behalf of DHH to assure the people that we had their best interest at heart, that we were doing everything we could to show them that everything was fine and if there were any problems we would let them know that there were health issues."

Ken Pastorick,
Public Information Officer,
Louisiana Department of Health and Hospitals

- Consider audio or videotaping the meeting so you can refer to it to refresh your memory on community concerns, if necessary.
- Consider posting video on the website.

Benefits of a public meeting:

- Creates an image of openness and transparency
- Provides an opportunity for community members to hear from others
- Allows the audience to express concerns and your agency to present information and respond

Limitations of public meetings:

- They require skill in managing discussions.
- Public meetings can intensify conflicts rather than resolve controversies. If public meetings have failed in the past, use an alternative method, such as small group meetings or a formal public hearing, to transmit information and obtain feedback.
- Consider that your available facilities may not be favorable for holding public meetings.

Small Group or Focus Group Meetings

Small group meetings allow for more interaction between members.[10] At a small group meeting, for example, agency personnel share information with interested community members, stakeholders, partners, and state and local officials. It is especially useful for informing and keeping in touch with community concerns, answering questions, and clearing up any misconceptions or misunderstandings. Small groups can also be used to test messages before they are released to the general public.

Preparing for a small group meeting:

- Identify interested residents, key contacts, leaders from all sectors, and officials.
- Contact each resident, group, or local organization directly affected by site activities. Offer to discuss public health issues at a convenient time.
- Limit attendance to between 5 to 20 people. If more community members and officials are interested, schedule additional small meetings.
- Decide whether to invite the media. Media presence may intimidate your participants. You may want to hold a similar meeting for media only.
- Select a meeting place conducive to two-way interaction. Place chairs in a circle or other informal arrangement.

- Select a date and time that allows for maximum participation. Make sure that the date and time do not conflict with other public meetings, holidays, or other special occasions.

Conducting a small group meeting:

- Ask, but do not insist, that people provide contact information so you have a record of who attended.
- Begin with an overview of current and future activities and findings.
- Encourage participation.
- Distribute fact sheets and other written information for attendees to take home.
- Follow up on major concerns. Stay in touch with the group and contact newly formed groups.

Benefits of a small group meeting:

- Allows two-way interaction with the participants
- Provides a method for acquiring direct feedback
- Enables participants to engage in consensus building

Limitations of a small group meeting:

- They require a day or more of staff time to reach only a few participants.
- It may be perceived by community groups as an effort to limit attendance or a tactic to prevent large groups from exerting influence. If this happens, hold additional small group meetings with organizations that express concern about being left out of the process.
- Irate groups or individuals may accuse your organization's staff of giving different information to different groups. Avoid criticism by inviting a cross section of community representatives to each small group meeting and by keeping a record. The record may be written, audio, or video.

Personal Telephone Contacts

Personal telephone contacts with state officials, local officials, and concerned community members can be used to build important relationships. Personally informing them of your organization's activities, finding out who is involved, and gathering information about the event can be helpful in building trust. After an initial contact is made, follow-up calls can inform these individuals and monitor the extent of community concerns.[14]

Make calls periodically to inform key contacts of any major findings and the progress of activities. Telephone contacts help you understand community concerns and gather information for your organization.

When making telephone contacts, know exactly what information to request, such as additional references, site specifics, or background information, and tailor questions accordingly. Information to solicit from these contacts might include:

- Background on the problem and recovery process
- Recent government activities
- Nature and extent of citizen involvement
- Names, addresses, and telephone numbers of other possible contacts

Always test your messages with a small group before public release to ensure that the meaning is clear.

"I think that interoperable communications is the greatest single challenge to managing catastrophic incidents in the United States of America. And unless we improve and continue to improve in that area, we will continue to struggle in the immediate response to catastrophic incidences."

Col. Terry Ebbert, USMC Retired,
Former Director,
Homeland Security,
City of New Orleans

Conclusion

Selecting the right communication channels is necessary for effectively delivering your message, and thus is crucial for public health and safety. The public information official must select the right delivery methods for a particular set of circumstances. This choice should be strategic and based on your audiences' needs, message you need to convey, available resources, nature and scope of the event, and goals of your organization.

In addition, some communication channels have a particular utility in a crisis situation and some crises may limit the viability of some channels. Most crises will require multiple channels to reach all of your audiences.

As a crisis develops over time, the mixture of channels may change. Regardless of which channels are selected, it is important to coordinate content so messages remain consistent.

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CRISIS & EMERGENCY RISK COMMUNICATION
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Chapter 9: CERC, Social Media, and Mobile Media Devices

Chapter 9: CERC, Social Media, and Mobile Media Devices

This chapter will discuss the following topics:

- Social media's relationship with mainstream media
- Social media forums, attributes, and users
- Working with social media before and during a crisis
- Writing for social media during a crisis
- Keeping up with social media during a crisis
- Mobile media and its role during a crisis
- Responding to social media regarding serious errors, myths, and misperceptions

Understanding the Use of Social Media in Crisis and Emergency Risk Communication (CERC)

Disasters can become media events. Today, they can also become social media events. Major public health emergencies will cause those who use social media to immediately become involved, especially if the events are exotic, catastrophic, or the first of their kind. For example, if a public health emergency involves terrorist activity, social media forums will likely engage at higher levels. User-generated content will often be the first publicly provided material. For example, some users will provide large amounts of content through narratives and related videos on YouTube, pictures on Flickr, and posts to Twitter and Facebook. This information can be picked up and repeated by mainstream media outlets.

Social media use has grown quickly, constantly changing and evolving. Users develop new applications and social media companies, such as Google and Facebook, are continuously innovating. Today, audiences are more segmented, yet many people rely on social media as their first source of news.[1] Social and new media outlets include, but are not limited to the following groups:

- Social networks
- Blogs
- Microblogs
- Podcasts
- Forums
- Photo and video sharing

"The social web is creating a fundamental shift in disaster response—one that will ask emergency managers, government agencies, and aid organizations to mix time-honored expertise with real-time input from the public… We need to work together to better respond to that shift."

Gail McGovern,
President,
American Red Cross

Responders to a public health emergency may think of social media as a distraction from serious efforts to respond to the event. For them, the distraction may seem uncontrollable, unmanageable, and full of misinformation (intentional or not). Many feel that social media have questionable credibility and reliability. Many see social media as little more than an annoyance.

In reality, social media are now a constant presence, like traditional media. Today, social media sources play a critical role in informing and, in some cases, misinforming the public during any crisis or emergency. Traditional media outlets routinely use social media sources for content. Social media users, by co-creating audio, picture, video, and multimedia information about public health event crises and emergencies, drive some of the Web-based and traditional media content.

No one source of information can be expected to reach everyone. At the same time, it's impossible to maintain a dialogue on every social media platform and with all social media content generators and distributors. Added to this challenge is the expanding number and types of social media sites that are integrated into public health conversations, especially when it comes to crises and emergencies.

Social Media's Relationship with Mainstream Media

What Is Social Media?

Social media can be defined as interactive online media that make it easy for users to participate and contribute content. Social media combine a wide range of online tools that enable interactive communication. Social media allow users to interact, engage in dialogue, and create and share experiences. Interaction might include the following:

- Sharing of opinions
- Participating in polls
- Giving personal recommendations or ratings

Social media involve two-way communication. They allow users to share what they have on their minds and promote communication among like-minded people. According to one of the most published writers on the subject, Brian Solis, "Social Media is much more than user-generated content. It's driven by people in the communities where they communicate and congregate. They create, share, and discover new content without our help right now. They're creating online cultures across online networks and using the 'social tools' that we learn about each and every day to stay connected."[2]

In a crisis, interactions might range from sharing photos of the public health emergency, to sharing information with follow-up discussions on social network sites. For example, these interactions may augment how a virtual community can be better protected during an outbreak or crisis or to encourage donations in response to an emergency. This level and kind of online interaction is what makes social media different.

- Web 1.0 is used for pushing content in one direction, such as traditional organizations' static websites.
- Web 2.0 is different. It is used for two-way information sharing, such as the following:
  - Social interaction
  - Relationship sharing and community building
  - Discussing and interpreting news and information
  - Creating and sharing information and emotions with people on a local and global scale

Technological Advances

Technological advances have transformed how crisis managers view, interact with, and disseminate information to affected communities in a crisis situation. Crisis and emergency risk communicators must consider how to make the most effective use of new communication technologies in response to public health disasters facing individuals, organizations, communities, and society. New communication technologies have transformed simple text messaging services into multimedia messaging services. For example, a person can take a picture or record video on a smart phone, type in commentary, and send that content directly to another person's phone, or to an Internet service. Users may also use services that allow them to directly stream live video from their smart phones to the Internet.

Converged Media

Mainstream media outlets are connecting with social media.[3] For example, a majority of the content on Twitter comes from the mainstream media, either through media posts or through user reposts. Therefore, social media and mainstream media are increasingly converging.

During a crisis, if the response agencies and organizations are not engaged, the media will find other sources via social media to comment on the crisis. Thus, when it comes to being accessible to the media, not engaging with social media can have the same effect as not returning a reporter's call. Using social media in CERC also means changing the definition of media contacts to include backpack journalists, bloggers, and other key online influencers.[4]

Mainstream media organizations are increasingly using social media as a way to generate content. They may monitor social media, such as Facebook pages or Twitter feeds, for information. They may solicit news tips, pictures, or video. Today many federal agencies use Twitter and Facebook accounts as a way to provide timely information, including updates for the media.

Organizations evaluating social media should consider the following:

- **Advantages of Using Social Media:**
  - Provides immediate information
  - Can create rapid connections and build relationships with the public
  - Helps build and maintain dynamic relationships with the media
  - Helps dispel rumors by immediately providing accurate information
  - Incorporates website links where media outlets and the public can obtain more detailed information
  - Works in support of a broader communication strategy
- **Examples to help conceptualize these advantages:**
  - Text-based 9-1-1 system
  - Twitter-like feeds to report emergency department waiting times
  - Photo sharing of disaster sites capturing progress and recovery efforts
  - Mobile applications to provide new preparedness tools
  - Interactive mapping
- **Disadvantages of Using Social Media:**
  - Some people mistrust social media. They may also not know how to use them.
  - Personnel and technology are required to maintain and monitor social media services.
  - Continual monitoring and following up are needed to update information and dispel rumors.
  - Social media are limited in terms of how much information can be included.
  - Some audiences do not use social media.
  - Some people may post to create controversy, to start online fights, or to advocate their side of an issue or event.

Social Media Forums, Attributes, and Users

Social Media Forums

A 2010 survey of the U. S. population over age 18, conducted by the American Red Cross, showed that nearly three out of four participate in at least one online community or social network, with Facebook being the most popular (58%), followed by YouTube (31%), MySpace (24%), and Twitter (15%).[5]

According to the survey, one in six has used social media to get information about an emergency, including Facebook (14%), mobile apps (7%), Twitter (6%), text alerts from local governments (6%), and Flickr (2%). However, television news (66%) and radio (43%) continued to be the main source for emergency information during an event.[5]

The survey also showed approximately half of the respondents would sign up for the following:

- E-mails
- Text alerts
- Applications to receive emergency communication, including the following:
  - Location of food and water (53%)
  - Evacuation routes (52%)
  - Shelter locations (50%)
  - Road closures (50%)
  - Location of medical services (50%)
  - How to keep yourself safe during an emergency (48%)[5]

About half of those who use social media also said they would repost emergency information on their sites. More than half would send a text message to a responsible agency if someone they knew needed help. Nearly half would use social media to let loved ones know they are safe. More than two-thirds agree that response agencies should regularly monitor and respond to postings on their websites. Three out of four would expect help to arrive in an hour.[5]

An ever-growing list of social media forums is available. One of the challenges of social media is the accelerated pace of change as well as evolving technology, with new social media platforms coming online daily. It is important for public health communicators to understand today's technology:[6,7]

- Stay informed about new social media platforms.
- Be aware of who is using what types of social media regarding the crisis event.

- Use new social media platforms that are deemed important by CERC communicators and those who bear risk during a public health event.
- Recognize where the largest audiences reside and put resources where they exist.

The following are the major social media categories with direct implications for public health emergency communicators (as of the writing of this book):

- **Social Networks:** These are individual websites where people sign in as members. They allow users to share content with friends or organizations for various reasons:
  - Develop friendships
  - Build emotional support
  - Advance a career
  - Purchase products or services

Websites such as Facebook and MySpace allow users to create personal profile pages, add friends, meet new people, comment on the activities of others, join groups with similar interests, and participate in online discussions.

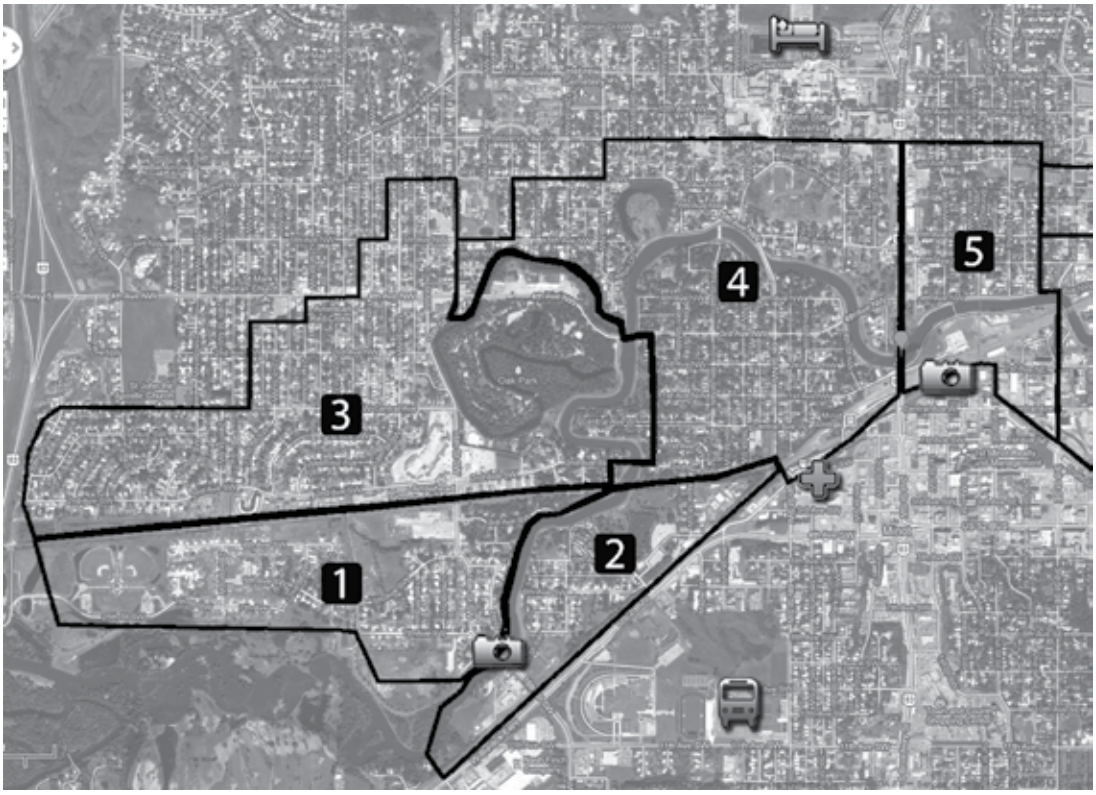
Specialized social networks are also used. For example, LinkedIn, a business-related site, can be used for professional networking.

- **Blogs:** Blogs are well-known forms of social media. These are online journals that provide a platform for individuals and organizations to write and share content where readers can comment on the content as well as share that information with others. Popular websites for blogging are Blogger and WordPress.
- **Microblogs:** These are social media sites that allow people to share limited amounts of information through posts, often with links to additional information. One good example of a microblog is Twitter, which allows sharing of bite-sized (140 character) content. Microblogs play an increasingly important role during public health emergencies, much like forums and content communities.
- **Wikis:** Wikis are Web pages where people work together as a community to create and edit content. For example, Wikipedia, is an online encyclopedia that allows participants to add content or edit the information provided in articles. Wikis are also used by government and other organizations to manage projects, conduct research, and brainstorm.
- **Podcasts:** These are a series of digital media files that are released periodically. They are often distributed through a subscription-based service, but many are also available for free online. They can include both audio and video, or multimedia formats.
- **Forums:** Internet forums are online discussion groups focused on particular interests and topics. They have diverse topics of interest available for discussions. They can be powerful and popular elements of online communities during a public health emergency.
- **Content Communities:** Members use content communities to share photos, videos, and other multimedia content. These platforms are organized around specific content that people create,

share, and discuss. Some examples of online content communities include YouTube and Flickr. The visual nature of these sites can play a positive or negative role in communication during a public health emergency.

- **Aggregators:** These are social media tools that collect content from different sites into one site. Their content includes news stories, blogs, and any other specific information available on the Web. The information they provide is frequently ranked by popularity and can include comments from users. Examples of aggregators include Google Reader and Magnify.net, a video aggregator.
- **Social Bookmarking:** Users share and rate online content through social bookmarking sites. Online bookmark management services are generally organized by subject matter. The full resources themselves aren't shared, merely bookmarks (links) that help to reference where they can be found. Examples of social bookmarking sites include Delicious and Digg.
- **Crowdsourcing Content:** Crowdsourcing is the act of outsourcing a task traditionally performed by an employee or contractor to an undefined, large group of people or community through an open call. Crowdsourcing social media sites have been used successfully in response to emergencies:
  - Managing traffic following natural disasters
  - Tracking food radiation contamination following the 2011 Japanese earthquake and tsunami
- **Livecasting:** This encompasses Internet radio and other applications that are streamed through a live broadcast to your social network or audience.
- **Virtual Worlds:** Computer-generated worlds, such as Second Life, allow users to interact with one another inside a virtual community.
- **Multi-User Online Games (MOGs):** A number of online communities of gamers provide virtual worlds in which users play together and socialize. They share information and experiences with other players around the world.
- **RSS (Really Simple Syndication):** This type of Web content is constantly being created and updated. RSS automatically feeds current content from key websites to subscribers as it is published.
- **Digital Mapping:** Data from many disasters such as fires, floods, and even disease outbreaks are compiled and turned into real-time, interactive visual images or digital maps (See Figure 9–1). Google Maps and Ushahidi[8] are examples of mapping programs used by the public. Programs such as ETEAM and WebEOC also use digital mapping to improve coordination and share information among crisis response organizations. These also support situational awareness for your emergency operations center or EOC.
- **Pinterest:**[9] This is a content sharing service that allows members to "pin" images, videos, and other objects to their "pinboard." It also includes standard social networking features.

Figure 9–1. Google Map of 2011 Minot, North Dakota, Flooding (Otis & James, 2011)



Google Attribution for Figure 9–1 (http://maps.google.com/maps/ms?ie=UTF8&source=embed&t=h&oe=UTF8&msa=0&msid=210936661488428171865.0004a488925fb9508a017)

(Shortened URL: http://tinyurl.com/3svvd74)

The above digital map provides locations for critical resources that could be used by people affected by the flood. Certain locations are marked with icons, which indicate that more information is available about access to this location and the resources available there. Examples of icons and resource information are listed below:

Minot Auditorium/Evacuation Center
The Minot Auditorium will be made available to evacuees as needed.

MSU Dome Evacuee Shelter
The MSU Dome is still accepting and housing any evacuees.

Temporary Re-Entry Zone
From the Minot Flood Emergency Operations Center: Residents living on the East side of 1st Street NE and the North side of 7th Ave NE are allowed back to their homes during the hours of 8 am to 8 pm, beginning today.

Broadway Partially Open
6.29.2011: Broadway will be open for North/South traffic between the hours of 7AM-10AM and 4PM-7PM. No entrance into evacuation zones is permitted, and the road will only be operated as a two-lane for the time being.

KXMC Live Camera
CLICK HERE for a live camera view of the Souris River at the Broadway bridge.

Jim Hill RV Parking
The Jim Hill Middle School parking lot has been opened up for RV parking - they have about 80 spots open for parking. There are no services available (electricity/water/sewer.)

EVAC ZONE 1
6.22.2011: SIRENS HAVE SOUNDED/AREAS MUST BE EVACUATED IMMEDIATELY/ MANDATORY EVACUATION IS IN EFFECT.

EVAC ZONE 2
6.22.2011: SIRENS HAVE SOUNDED/AREAS MUST BE EVACUATED IMMEDIATELY/ MANDATORY EVACUATION IS IN EFFECT.

Social Media Attributes

Social media are a collection of online communication platforms that share five major characteristics or attributes, including participation, openness, conversation, communities, and connectedness.[10] Other attributes include reach, accessibility, usability, immediacy, permanence, and education and entertainment. These attributes create unique communication opportunities when compared to older media channels:

- **Participation:** Anyone who has access to the Web can share information and provide commentary and feedback on a crisis through dialogue and information push or by creating and altering content.
- **Openness:** An opportunity for transparency concerning management of the crisis and crisis communication is at the core of social media. Most social media platforms are built on community discussions that require posting content and providing feedback.
- **Conversation:** CERC is reliant on both information push, such as for a product recall or boil water notice,

"There are two great advantages for using social media for emergency communications and those two advantages revolve around speed, it's really fast and it's direct."

Ali Khan, M.D., M.P.H., Director, Office of Public Health Preparedness and Response, CDC

and two-way communication. It is also a give and take of information and perspectives, such as community discussions about risks of environmental contaminants.

- **Communities:** During a crisis, single-issue groups and groups with similar interests can arise quickly. These groups may have already gathered in chat rooms and on discussion boards, Facebook, and Twitter. They may be more engaged during a crisis. Social media enables the creation of communities that are temporary in nature until the crisis event is over. However, these communities may continue into the crisis resolution, follow-up, remediation, and compensation stages.
- **Connectedness:** Social media involve sharing content with people and organizations known or unknown. Participants often provide and use links to other content for information or emotional support. During crises, those bearing the risk have used social media as an emotional outlet, especially when the crisis isolated them from friends and family.

Additional Attributes

- **Reach:** While social media do not reach everyone, a diverse range of the public, including minority communities and older people, increasingly uses it.[11] A digital divide remains in the sense that some people will be more connected than others. Therefore, communicators must also use traditional forms of crisis and risk communication to make sure they reach the widest possible audience. Social media do not replace other forms of communication; they enhance the overall package of communication tools.
- **Accessibility:** Social media are accessible through many handheld devices. This means that information will be more accessible to a large number of users. A disaster may disrupt service and accessibility. If electricity is not available, but cell towers are still working, handheld devices may enable people to continue using social media channels.
- **Usability:** Social media are increasingly user-friendly, allowing users to quickly and easily view and generate content.
- **Immediacy:** One of the most important attributes of social media is the speed with which information can be distributed.[12,13,14] In fact, many crises and disasters are likely to be reported first via social media.
- **Permanence:** A record of an event can be maintained through social media postings. This information, which may be in the form of text, audio, images, or multimedia, can be used to assess additional risks during the crisis event. It may also be used for crisis resolution, follow-up, fixing the problem, and compensation.
- **Education and Entertainment:** Social media are used for both education and entertainment. Many elements of social media can be used to more dynamically engage the public information

process. At the same time, much of social media dialogue and sharing is about entertainment and can help engage audiences. An appreciation for the complex nature of social media is important when communicating during public health emergencies.

Social Media Users

Social media users are diverse and can be put into five categories.[15] Each category of users has implications for public health communication during an emergency:

- **Lurkers:** These are users on the outside looking in. They observe the community and look at content, but do not comment or contribute. While these users are not engaged in social media, they may look to gather information about the crisis. This way they experience the crisis, but are not directly responding to the event.
- **Novices:** Novices are just beginning to get engaged in the social media community. They are more active observers and create a limited amount of content. They may post photos or participate in a few threads of conversation. During a crisis, novices are likely to get more involved in creating and sharing content.
- **Insiders:** These users are consistently engaged in dialogue and content creation. They interact with other members and make an effort to comment, rate, and use materials from other organizations and people. During a crisis, insiders will seek risk information from social media. They expect response organizations to be engaged with social media and provide information quickly and accurately.
- **Leaders:** Leaders are users who are recognized as veteran participants. They will cross-link information, often comment on newly posted material, and correct misinformation or misbehavior as needed. During a crisis, leaders are followed as sources of information for traditional media as well as those bearing the crisis. Leaders are also more likely to self-correct misinformation about the crisis.
- **Elders:** These are users who have stopped using social media for a variety of reasons. They may have a problem with time or have acquired other interests. During a crisis they might re-engage in various capacities as needed.

When you engage with social media users, keep two other unique characteristics in mind:

- Social media users bypass traditional media and other information gatekeepers by posting their thoughts, images, and multimedia messages directly. However, this does not mean that social media users are not consumers of traditional media.
- Social media users also use traditional media by posting and reposting media content and linking RSS feeds.

Communicating with social media users is quite different from providing press updates and press conferences with traditional media personnel. For most social media users, the creation and

dissemination of content is not their job. There is little to no formal training or an apprentice period for social media users.

The technology, and application of the new technology, is constantly evolving at a pace that makes it very difficult to keep up with changes. Health communicators are challenged to do the following:

- Learn how to use it and use it routinely prior to an event.
- Understand who is using it and why.
- Know the proper formal and informal protocol for sharing information and engaging in dialogue.

Working with Social Media Before and During a Crisis

Before a Crisis

Social media have changed how crisis and risk information is handled prior to, during, and after a public health emergency. This information may be in the form of text, audio, visual, or multimedia. Social media have affected every step in the process of handling crisis information, including how it is created, manipulated, processed, shared, and disseminated.

Developing relationships with audiences before a crisis occurs builds trust. Using social media before a crisis can also help promote preparedness and educate audiences about risks. Organizations need to be regular users of social media before a crisis. Establish your social media relationships early. If not, social media users will go to other sources and groups with whom they already have relationships for information.

Following are some best practices for using social media for risk communication before a crisis:[16]

- Determine social media engagement as part of the organization's risk and crisis management policies and approaches. Every crisis communication plan should have a section for communicating with stakeholders and working with the media. Social media can be used to communicate directly with stakeholders and the media at the same time. More importantly, social media provides a built-in channel for stakeholders to communicate directly with organizations. Incorporating social media into the plan ensures that social media tools will be analyzed and tested before the crisis. It also requires regular updating of the communication plan as social media evolves.
- Incorporate social media tools into environmental scanning procedures to listen to audience concerns. One important use of social media is the opportunity it provides, if used well, to listen to the concerns of the public and others who may be bearing risks. When users create and manage their own content, external and internal social media monitoring becomes even more critical. In addition, tracking issues through social media and reporting the results to the crisis management team can increase the potential that a crisis will be addressed sooner. It will also demonstrate to the team why social media needs to be embraced in the crisis response.

- Use social media in daily communication activities. Individuals may have information that is crucial to handling the crisis. However, they probably will not share that information if they do not trust the organization or know where to find it online. Do not wait until you are in the middle of a crisis to try using social media. To build partnerships and build trust, the discussion with members of the public should already be taking place. Internally, using social media like Wikis on day-to-day projects can streamline communication within the organization and increase efficiency.
- Follow and share messages with credible sources. Collaborating with trustworthy and supportive sources can enhance the credibility of the organization and increase its reach. By cross posting and retweeting messages among partner organizations, a coalition of credible sources is established and more individuals are reached through shared networks.

Preparedness 101: CDC's Zombie Apocalypse Venture

When CDC was looking for a way to draw new attention to emergency preparedness messages, they used zombies to provide a witty yet educational guide for their Public Health Matters blog. Using existing resources and social media savvy, CDC's Office of Public Health Preparedness and Response harnessed the power of popular culture and created a viral campaign that caught national and international attention.

Buzz started to grow about the blog and it went viral two days after @CDCemergency tweeted, "Prepared for a #zombie apocalypse? If so, ur prepared for any emergency. Learn more: CDC Public Health Matters blog http://go.usa.gov/jRH."

The blog, which usually receives around 3,000 visitors a month, was overwhelmed with users and crashed 48 hours after 30,000 readers rushed to see what had caused all the commotion.

Within one week, the blog post received over 2 million page views. Comments about the blog on CDC's Emergency Preparedness and Response page (on Facebook) sparked discussions about what people are doing to prepare. In some cases users sought advice from other users.

Catherine Jamal, Lead for the Emergency Web and Social Media Team, summed up the experience of using social media for risk communication by stating the following: "It was exciting to make a campaign that was directly tailored to what users told us they were interested in, and then have that campaign resonate with all of our target audiences—the general public, public health professionals, health-care providers, emergency responders, and even the media. Sharing the message of general preparedness via social media channels like Twitter, Facebook, widgets, and badges enabled us to reach people of all ages around the world in about a day."

During a Crisis

While social media are important before a crisis occurs, the immediacy of social media is a particularly important feature during a crisis. Public health emergency managers and communicators are challenged with the demand for delivering accurate information rapidly. It must be done in a manner that can be altered and shared through diverse social media channels.

> *"You have to figure out what it is you are trying to do, what is the mission, the effects you're trying to achieve, and what enhances your ability to do that. For the majority of the population and the complex problems we're dealing with today, it takes you to social media."*
>
> *RADM Thad Allen, Retired,*
> *Former Commandant,*
> *United States Coast Guard*

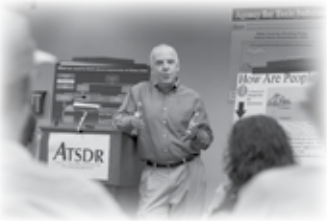
The various forums discussed earlier can be expected to play a role during a crisis. The most immediate forms, such as microblogging (Twitter) and social media (Facebook), will be prevalent in the earliest stages. For example, within one week of the 2010 earthquake in Haiti, "more than one in 10 Americans (13%)—including 24% of those younger than 30—say that they've gotten or shared information about the Haiti earthquake through Facebook, Twitter, or another social networking site."[17] Social media should also be accessible during a crisis from a multitude of digital handheld devices.

These highly mobile communication devices have created additional access to social media and are particularly useful for transmitting hazard and risk warnings to those members of the public who principally rely on these devices for news and communication. The rapidly evolving Commercial Mobile Alert System (CMAS) communicates alerts and warnings to handheld devices.[18] Later in this chapter mobile media are discussed in more detail.

With social media, everyone has the potential to be watchdogs, citizen journalists, photo journalists, and caring or nosy neighbors who can constantly survey the world around them and share what they find online. Stakeholders on the ground of a crisis event are generally the ones with first-hand knowledge. They become key sources of information and facilitators of a broader understanding of the event. They may do the following:

- Provide information that is critical for situational awareness
- Distribute information
- Create content and visuals
- Assist in connecting people and information via social media

They may not intend to help CERC communicators but the information they provide inherently does.



Some best practices for using social media during crisis events are described below. These can be helpful in determining a social media strategy for an organization:[12]

- **Join the conversation, help manage rumors by responding to misinformation, and determine the best channels to reach segmented audiences:** Health communicators can do more with social media than track issues. It is essential that they interact with their audience to address misinformation and establish the organization as a credible source. Responding to posts demonstrates that the organization cares what stakeholders think. It also demonstrates that the organization is engaged and able to address their concerns. Reaching specific audiences with a key message is a foundation of targeted communication. However, in CERC, communicators often resort to the standard mass media push to reach everyone at once. Health communicators must still consider how messages will be interpreted and who will not be reached. After all, those who face the greatest risks are often those with the least access to information. Determining the best communication channels for specific audiences online or in the community should be incorporated in communication plans.
- **Check all information for accuracy and respond honestly to questions:** Inaccurate information that is shared and retweeted, or passed on through other social media outlets, not only makes the organization look bad, it can also look bad for the user who passes on the information. It is easier simply to skip over a post you do not want to address than it is to ignore a pointed question from the media. However, the public, like the media, will turn to other sources if the organization stonewalls on key issues. If you do not know the answer to a question, it is better to communicate the uncertainty of the situation and explain what you are doing to find out the answer than to answer incorrectly or not answer at all.
- **Recognize that the media are already using social media:** The crisis will likely be discussed through social media, and traditional media will be part of that discussion. If the organization is not engaged, the media will find other sources through social media to comment on the crisis. Thus, when it comes to being accessible to the media, not engaging in social media can have the same effect as not returning a reporter's call.
- **Remember social media is interpersonal communication:** Social media allow for human interaction and some degree of emotional support, and have been shown to be important to stakeholders dealing with crises.[19] If communicators use social media to send out messages that come across as generic marketing blurbs, these messages will be seen as cold, callous, and impersonal. They will not encourage the relationship building and mending needed in a crisis. Organizations should be ready to pull messages, such as advertisements or campaigns, in case of a crisis. It took 2 days after September 11, 2001, for advertisers in Times Square to change their billboards to messages of sorrow, charity, or patriotism. Two days is a lifetime online, especially as it relates to social media. Incorporating and responding to emotional appeals are ideal uses of social media, but organizations have to be ready to move to that message exchange instantly.

- **Use social media as the primary tool for updates:** Organizations often promise to follow up with the media and public as soon as they have new information, but then wait to release that information until a press release can be drafted, refined, cleared, and sent out. Generally, it's posted to the organization's website after the release. Sometimes, organizations will wait until the next scheduled press conference to provide their updated information; this allows them to have a spokesperson deliver the information while also displaying the appropriate emotions. Using social media allows organizations to keep their promise of providing timely updates to the media and public.
- **Organizations have another option:** They can use social media for updates in the crisis response and recovery. This allows them to humanize the response and continue to be a reliable source without requiring all the exact details and time needed to fill a press release or hold another press conference.
- **Ask for help and provide direction:** Giving people something meaningful to do in response to a crisis helps them make sense of the situation. As a partner in the crisis response, the public can provide essential information, especially if they are directly affected by the event. By providing that information, social media users are taking action. When an organization requests useful information via social media, it helps both the organization and the stakeholders who respond in managing the crisis. If there are actions individuals can take to reduce risks or assist in the recovery efforts, social media are an ideal forum for reaching stakeholders with the directions needed. Even more, by simply forwarding, cross-posting, or retweeting the directions, users are taking action.
- **Web 2.0 is not a solution to all communication problems:** Social media remains a channel or tool with its technological advancements, rapid access to information, large numbers of users, low cost, and ease of use. The power to communicate remains with the behaviors of the communicating organization and the content they produce, not in the technology. The real value in communicating through social media comes from the quality of the content being disseminated. That content needs to explain the actions of the organization while demonstrating compassion and empathy for those affected. Thus, using social media is not a best practice in CERC. Social media are a tool that can assist practitioners in following best practices.

Reality Check

During a public health emergency, community information is often difficult to gather. Social media are a great way to scan and monitor the environment, getting glimpses and anecdotal evidence about how a community is responding to the crisis.

- Gain insight into areas of misinformation.
- Understand emotional response issues for first responders.
- Gather an informal impression about what risk bearers are thinking, perceiving, feeling, and sharing.

Writing for Social Media during a Crisis

Unlike working with journalists, there is not a generally agreed upon writing standard for social media. The pressure is to move the process along at the accelerated pace of the online world.

The public's belief that an emergency response was effective is related to how much access to information they had during the crisis. The fundamental challenge is have speed and accuracy. Both are crucial:

- If information is accurate and released after the public has moved on to another issue, it has little value.
- If information is out fast, but inaccurate, it's a mistake. The best-case scenario is to admit errors and move on. The worst case scenario is that the inaccuracy causes harm to the public and damages your organization's credibility.

When writing for social media, keep the following points in mind:

- **Provide adequate scientific expertise:** During a public health emergency or any event involving technology, most social media users will not have the scientific background to quickly grasp new information or the nuances of that information:
  - Prepare to fill in the blanks without talking down to your audience.
  - Do not assume that everyone knows technical jargon.
  - Engage in dialogue with social media users.
  - Start with the basics regarding new information.
  - Bring reporters along in their understanding of technical issues. Reporters will appreciate not being made to feel stupid, and their reports will be more accurate.
  - Link to other credible Web resources.
  - Explain points from using plain language as social media are a user-driven medium.
  - Engage your technical experts with social media early.
- **Provide messages of self-efficacy:** Social media are about dialogue, participation, connectedness, and other social attributes. It relies on people to engage in communication and take responsibility for both communication and action during a public health emergency. For example, when an F5 tornado devastated the town of Joplin, Missouri, in 2011, FEMA immediately posted messages on their blog, Twitter, and Facebook pages.[20] They also created a video featuring FEMA Administrator Craig Fugate communicating to the public how they can help tornado survivors as well as how to keep safe during a tornado.[21]

- **Use social media to provide emotional support:**
  - Communicate with compassion, concern, and empathy.
  - Be present but understand that some of the dialogue can be frustrating.
  - Prepare for emotionally charged reactions to the crisis event and how the situation is being managed.
- **Establish trust with social media users:**
  - Identify yourself and your organization if you are providing information in chat rooms, posting videos on YouTube, or making comments on Facebook groups that have been set up specifically for the crisis event.
  - Communicate with honesty, candor, and openness.
- **You are not necessarily able to control what messages are being sent:**
  - Be prepared for all types of messages about your brand, partners, stakeholders, and audiences.
  - Have a strategy about when and how to respond.
- **The public is increasingly diverse in terms of which medium they are using to get information:** This is a huge barrier for public information officers and public relations professionals seeking to manage a crisis.
- **Use social media to listen to the public:**
  - Listen to concerns and understand the audience.
  - By engaging in social media dialogues, you can address rumors early and correct misinformation more easily and quickly.
- **Collaborate and coordinate with credible sources:** Feel free to repost or retweet effective messages from credible sources such as other public health, emergency management, or disaster relief agencies, or even influential bloggers who are supporting your organization.
- **Partner with the public via social media:**
  - Stay transparent by providing enough information for people to know what is happening.
  - Update your social media profiles regularly.
  - Include information on how the situation is being handled and how decisions are being made.
  - Include information on decisions about how to communicate with the public during the crisis

- **Accuracy is always important but so is speed of response:** Concerns about accuracy may be why some emergency managers avoid social media. While this may be problematic at times in both traditional and social media, anecdotal evidence during a crisis suggests that social media are generally accurate because they are self-correcting. People who are experiencing the crisis or public health emergency will often correct misinformation, provide more timely information than emergency managers have, and provide more detail than officially provided. In this manner, the advice to accept uncertainty and ambiguity is ever more necessary in social media.

The core principles of crisis and emergency risk communication, "Be First, Be Right, Be Credible," apply to social media. Throughout this manual, it has been emphasized that effective CERC means being quick, accurate, consistent, and credible—being the first and best source for information. Social media are one of the tools to help you achieve these goals.

Using Social Media during the H1N1 and the Seasonal Flu Outbreak

During the 2009–2010 H1N1 and seasonal flu outbreak, CDC and the U.S. Department of Health and Human Services worked together to create social media tools that provided the public and partners with credible, science-based information. A comprehensive set of tools was developed and utilized to encourage participation and achieve the overall goal of communicating key messages to influence health decisions.

By using multiple formats to disseminate messages, users had the option to participate based on their knowledge, level of access, and engagement with social media. A variety of tools was made available to partners to ease their sharing and promotion of H1N1 and seasonal flu information. Tools with portable content, such as widgets and online video, allowed users to share messages and become health advocates.

The CDC Facebook page was used to share H1N1 and seasonal flu updates and provide social media tools, such as the following:

- Badges and widgets, for users to download and share
- Links to CDC.gov for additional information
- Posted blogs from CDC subject matter experts
- Promotions about CDC's text messaging campaign

By using Facebook to share H1N1 and seasonal flu information, CDC reached a younger audience than they reach with their main website, www.CDC.gov.[6]

Providing Links to Other Key Information Sources

Social media can be used to link directly to other credible sources of information about a disaster or crisis. This allows users to select the kind and amount of information they want.

Advantages of providing links within social media posts:

- Links can be used to direct readers to information presented using other methods, such as the following:
  - Video, audio, or both
  - Text from press releases
  - Commercial press release services
  - Website content
  - Press conferences or media opportunities
  - Telephone news conferences or webcasts
  - Satellite media tours
  - E-mail distribution and broadcast faxes
  - Websites, video streaming, and webinars
- The linked content can provide additional information, include background information that may help provide context for the social media post.
- Links give traditional media organizations both tangible and electronic items to use.
- Providing links allows for the simultaneous release of paper and electronic (e-mail and Web) forms.
- Links can be disseminated through multiple social media channels, directing readers to go to a single source for the content. This ensures consistent information is distributed to all social media users. It also makes it easy for mainstream media outlets to get the right information.
- This method provides a historical record.

Disadvantages of providing links from social media posts:

- Releases take considerable time to write, and information may be changing while a release is being written. Communicators must be willing to update releases to provide the most current and accurate information. This means they must also communicate the uncertainty of the information they are providing.
- Releases may be difficult to clear through all layers of official command.
- Reporters and social media users will expect more information in that same form; be prepared to consistently release information this way.
- If the release is not organized through your command post or joint information center, competing press releases can and will occur. This is especially true if press releases cover information that spans response areas. This is particularly problematic if there is lack of clarity about who is responsible for collecting and releasing what information.

As discussed here and in earlier chapters, mainstream or traditional media functions differently during a crisis. This same statement can apply to social media. During an unfolding emergency, the behavior of social media users will be mixed and varied. During the early stages or phases of a crisis you can expect the following:

- **Diminished information verification:** Tentative information, sometimes incorrect, will be posted without the usual practice of confirmation from multiple sources. Social media, however, tend to be self-correcting as users fix content errors.
- **Diminished adversarial role:** Reporters will want to help by providing important messages. Most media outlets contribute in their way to public health and safety. Mainstream media may even see themselves in partnership with response officials in the early stages. Media professionals are generally more likely to adopt an independent stance as the event progresses. With social media, the users are the content providers, and "us versus them" is less of an issue.

Reporters will want to help by providing important messages.

Media professionals are generally more likely to adopt an independent stance as the event progresses.

- **For major crises, expect the national media to dominate:** Most people will get their news from the national media. Ideally, local media will likely feed information to the national media, coordinating their coverage. Messages meant for local audiences will compete for airtime with national coverage. Social media increasingly offset traditional media dominance and are a mainstream national media resource. Social media are a direct source of local news and can help provide important information and updates to people affected by the event.
- **Person-on-the-street interviews:** These interviews are common. Today, the use of cell phones and cameras is routine during the first moments of a crisis. Social media users are often the first to report and provide visual content of a crisis situation, often via handheld devices. During a crisis, social media allow everyone to serve as a reporter. Every cell phone becomes a photojournalist's camera. Pictures, videos, and tweets can be posted almost instantaneously.
- **Media interviewing media:** Reporters interviewing other media personnel will be commonplace during the first moments of an event. Until official news sources are available, the media will use informal sources to fill time. This will include significant content from social media. Layperson and citizen journalist reports and content will be common. This will include advice, updates, requests, and status reports. Some of these reports will come from people who are directly affected by the crisis.
- **Information that cannot be easily found might as well not be published:** Structured hierarchies and predetermined groupings for sorting information are standard within many organizations. However, social media users don't think along those lines. User-defined tags, and Google-inspired index-driven searches are the design patterns for social media. For example, if you only communicated or "tagged" your 2009 pandemic flu prevention information as H1N1,

you would have missed your key audiences. Social media people were mostly searching for "swine flu" on Facebook and Twitter.[22]

- **Employees want information first:** Internal audiences are important and should generally be targeted as one of the first to receive information. Doing so helps ensure collaboration is occurring and that employees have the ability to be on the same page.

Keeping Up with Social Media during a Crisis

How to Keep Up

One key concern about social media during a crisis is how to keep up with and process all the messages. It's a legitimate concern but one that isn't unique to social media. Crisis management and communication has and will always be about processing and communicating information quickly. The difference is that the conversation is now even more immediate and disseminated more widely. Make sure that you do the following:

- Don't miss vital information being shared via social media.
- Enhance situational awareness of the event.
- Respond in a timely manner to those bearing the risk if they ask direct questions through social media platforms.

Two things can you help manage these concerns:

- One option is to outsource computer processing or geospatial monitoring to collect, categorize, sort, and analyze social media content for quick feedback during a crisis.
- A second option is to outsource social media crisis communication specialists to assist in managing the social media dialogue during and after a crisis. Such an option does relinquish control over messages and should be approached carefully.

Using Social Media for Internal Organizational Communication

One group that is sometimes overlooked is your internal audience. Social media can have a significant impact on internal communication in organizations and agencies during a crisis. Using social media for internal communication are an excellent strategy for organizations involved in public health disasters.

When implementing your internal social media strategy during a health disaster, the following factors are important:

- Have a social media policy that defines the types of boundaries your agency may require for maintaining confidential information.
- The culture of your organization may need to adapt to allow for the proper use of social media.
- Create only those social media services that will benefit the agency, stakeholders, and partners.

These challenging tasks might best be initiated through conversations with key managers and communication professionals. Also review and use the Social Media Communications Strategy Worksheet located at the end of this chapter.

Some questions to ask when using social media internally include the following:

- Would people in your organization be more effective if they could communicate more quickly and accurately with each other?
- Would your organization, and the people working and volunteering for you, be more productive if they were able to work in a more collaborative environment?
- Could the environment of your organization be improved by using a communication tool that brings about quick communication and collaboration?

If you answered yes to any of these questions, consider using social media inside your organization before, during, and after a crisis event.

The following suggestions can help integrate social media into your current internal websites and move your organization's approach from using Web 1.0 to Web 2.0. This will be especially helpful in managing a public health emergency:

- **Planning is fundamental and essential for success:** Create a vision and a plan that is based on a thorough assessment of employees' or members' needs and expectations, as well as those of management.
- **Leadership must set the tone:** Senior management must lead by example and spearhead the dialogue, by establishing the culture of social media use within your organization. Sanitized "organizational speak" from communication specialists posing as executive voices does not work. It runs the risk of hurting trust among employees or members who want honest, direct, and simple messages.
- **Policies and training are necessary:** What can and can't be done needs to be defined. Anonymous postings should not be allowed. Everyone needs to take ownership of their contributions.
- **Everything is about conversation and dialogue:** Co-creating content for solutions to challenges is important. Everyone can and should participate. Actively encourage employee and member comments and contributions to blogs and wikis.
- **Social media content has to be relevant and up-to-date:** A blog that is updated once a month isn't serving a purpose. Don't start a social media site and just leave it, hoping it will take off.

Mobile Media and Its Role during a Crisis

Mobile Devices

Web 2.0 offers an excellent opportunity to use mobile handheld communication devices for transmitting hazard and risk warnings to the public. These devices include the following:

- Mobile phones
- Smartphones
- Personal digital assistants (PDAs)
- Wireless tablets
- Mobile collaboration devices that extend the capability of video conferencing in real time over secure networks

In the past, mobile devices were designed for news and personal communication. Today, these devices are used for many CERC functions, including the following:

- Information sharing
- Real-time coverage of events
- Dissemination of crisis information to family and friends
- Location and safety updates of family members and other loved ones
- Directions away from disaster areas

Using Mobile Devices

Community members who experienced the 2007 southern California wildfires sought information using mobile phones to contact friends and family, including by using the following:

- Information portals and websites advertised in traditional media
- Individual blogs
- Web forums
- Photo sharing sites, such as Flickr and Picasa
- Microblogs, like Twitter

Residents used mobile technology devices to fill the information void and get details that weren't available in traditional media.[12] They also used it to inform themselves and each other about their safety. The benefit of mobile devices is that they are small, smart, and portable. People will stay connected, as long as channels are available.

The mobile telephone, once only used to communicate by voice with others, has evolved into a powerful communication tool. This includes smart phones that come with a wide variety of applications, commonly referred to as "apps." These apps can empower responders and the public to perform a number of tasks, while staying mobile:

- Communicate by voice with others
- Take photographs
- Make videos
- Send text messages
- Perform powerful computing functions
- Organize tasks
- Take notes on site
- Send press releases in the form of text messages to the media, stakeholders, partners, or the public
- Manage location-based applications and systems through the global positioning system (GPS)

GPS technology is a satellite-based navigation system that allows users to identify their geographic locations. These devices are rapidly becoming more popular.

Mobile phones offer a number of pathways for effective communication. Traditional one-to-one verbal communication has been augmented with other variations. In one-to-many communication, a sender can broadcast information directly to a large segment of the population or to a large stakeholder group. The information can be disseminated in various forms, such as photos, videos, short message service (SMS) text messages, and short press releases.

In many-to-many communication, the mobile device is used to connect groups of people using mobile wireless Internet capabilities including social networking sites like Facebook, Twitter, and foursquare.[23] The latter is particularly well-suited to the mobile device, because it combines location-based features such as geographical information with social-networking capabilities. The foursquare app, like many social media systems, raises questions about privacy.

Handheld devices provide a number of advantages to professionals in a disaster or crisis situation, including the ability to maintain continuous communication and to better manage the flow of information. Continuous connectivity, however, often creates information overload and creates the expectation of always being in touch. One of the primary benefits for public health communicators and emergency managers is access to on-the-ground information from those affected by the crisis, including the following:

- Location of casualties
- Blocked access points
- Overcrowded health facilities
- Sources of food contamination

Along with these advantages, however, come risks that must be anticipated and managed. Technologies allow the entire online community to obtain information that can potentially create problems for those tasked with managing a crisis. For example, officials might experience impromptu reporting in which

bystanders use their phones to record video or take photos of emergency personnel who may not appear to be acting professionally. Under the stress of a crisis, the immediacy of digital communication might result in false information being communicated to stakeholders.

In addition, social media users can take advantage of these technologies to create and disseminate their own influence, decentralizing the dissemination of information, and reducing official control. For example, following a school shooting at Virginia Tech University on April 16, 2007, the school could not officially release the names of dead and injured students to the media until all relatives had been notified. However, students were sharing this information through social media because people wanted to know if their friends and family were safe.[24]

Mobile devices do more than enhancing the communication individuals have with their personal contacts. The technology also forges mobile connectivity with an entire online virtual community. With mobile devices, users can do the following:

- Receive information through their devices.
- Create their own content or forward content immediately to others while in the field.
- Contribute directly to the media by providing eyewitness perspectives through video, photos, or texted accounts of an event.
- Bypass the professional reporters on the scene and providing unfiltered views of what is happening in the world.

Reality Check

A Morgan Stanley analyst suggested that the world is currently in the midst of the fifth major technology cycle of the past half-century, predicting that within the next five years more users will connect to the Internet over their mobile devices than on desktop PCs.[25]

Mobile Devices Used in Disasters

Globally, mobile devices have become more affordable and integrated into everyday life. This has changed the way people communicate with each other in a disaster situation. For example, people in a disaster zone can communicate more quickly over the mobile network, including searching for loved ones. Journalists can literally walk around as a mobile television or radio studio covering the event. Analyses of disaster situations occurring since 2000 illustrate the opportunities and challenges of using mobile devices in a crisis. Mobile technologies have played a prominent role in several crises and disasters:

- **Southeast Asia tsunami catastrophe in 2004:** Photo sharing capabilities and features were used to document events and to provide dramatic visual eyewitness accounts, including a poignant and frightening video of an incoming wave taken from the abandoned camera of one of the victims.[15] This disaster also saw the initiation of the use of mobile technologies to solicit and receive donations for relief efforts.
- **2005 London subway terrorist attack:** Mobile devices played key communication roles during these terrorist attacks in the London subways. Despite some challenges, mobile devices were useful tools for coordinating the dissemination of information during this event to affected populations. In this particular case, the initial use of mobile devices was to communicate information in the form of text followed by visual information. Mobile devices were soon used to forward pictures of the impact of the bombings on train stations to the London community, the media, and the rest of the world.
- **Virginia Tech shootings of 2007 and Northern Illinois University (NIU) shootings of 2008:** Shootings occurring on university campuses, including Virginia Tech and NIU, provided further insight into the impact of mobile media use on disasters. People were beginning to use mobile media more extensively to communicate with others and give real-time accounts on what was going on during these traumatic events.[15] Researchers analyzed online communication that occurred during the Virginia Tech and NIU shootings and found that people used virtual communities (e.g., social networking sites) to interact with others, seek information regarding the crisis, share experiences, form online relationships with others, and build community and awareness of the tragic events.[24] In the aftermath of these shootings, many colleges and universities instituted cellular phone services to communicate safety alerts to students, faculty, and staff.
- **Mumbai terrorist attacks of 2008:** Mobile phones also played a significant role in the Mumbai terrorist attacks in 2008 by raising awareness through eyewitness accounts. On November 27, 2008, a series of coordinated terrorist attacks across the city of Mumbai hit several hotels, a cafe, train station, and a Jewish center. Several people were killed. What was unique in this particular case was the fact that the traditional news media were obtaining most of their information from sources on the ground in Mumbai. Citizen journalists were reporting events during the 60-hour terrorist ordeal using tweets, Flickr pictures, and videos posted on YouTube from their mobile devices for the world to see.[26]
- **Haiti earthquake of 2010:** Following the earthquake, mobile devices allowed people from all over the world to donate to relief efforts using text messages. This type of fundraising effort, first seen following the 2004 tsunami disaster in Southeast Asia, increased the awareness of the power of nonprofit organizations as a communication channel in a disaster situation. The Haiti earthquake disaster highlighted the use of SMS text messages to communicate first response aid to individuals needing immediate medical attention or who were trapped under buildings and other fallen structures. Mobile phones were used to communicate first aid information and to provide information about where to go for shelter, food, water, and other health assistance.

  Some of the messages that were being sent via these mobile devices included information such as the following:

- **An offering of medical care:** "Hospital Sacre-Coeur in Milot says it has capacity for patients and asks people to make their own way there"
- **An announcement concerning search and rescue:** "Though the government says the search and rescue phase is over, SAR teams are still available. If you know someone is trapped call + 870 764 130 944, e-mail haiti.opc@gmail.com, or contact MINUSTAH"

Response personnel also sent general advisories on other issues of relevance.[27,28] The growing prevalence of mobile phone ownership and use, even in very poor countries like Haiti, makes rescue efforts possible that would have been unthinkable in 2000.

- **Japanese earthquake and tsunami of 2011:** Social media use in response to the disasters that hit Japan in 2011 highlighted the growing importance and evolution of social media and mobile device use during a crisis event. In addition to uses described in the previous crisis events, crowdsourcing websites were used for monitoring traffic patterns out of affected regions and for tracking radiation contamination of food in the affected region and beyond. In addition, Google's Crisis Response site was one of the most visited social media sites used for sharing information on the crisis. It provided access to the company's Person Finder search program, which helps people reconnect after a disaster, using both personal descriptions and photos. People could post if they had been identified as missing as well as search for missing friends and family. They could make donations to multiple agencies. They could connect with missing persons phone lines and emergency voicemail message boards. They could also receive alerts and statuses from world health agencies, Japanese utility companies, government agencies services, and real-time updates of RSS feeds.

People use social media tools often through mobile devices during a crisis. These tools can help determine the whereabouts and well-being of their friends and family, process information in real time, and serve as a way to post corrections when users conclude that information is not accurate.

Opportunities

Mobile devices provide many opportunities for more effective communication in disaster situations.[29] With their immediacy and nearly universal prevalence, mobile technologies allow rapid and proactive disaster relief responses. Professionals operating in disasters have greatly improved remote access to information, along with the ability to communicate with their home base or others onsite.

- **Valuable Resource for the Community:** Mobile communication channels also serve as a valuable resource for the community. They do the following:
  - Provide information
  - Contribute to a sense of normal life
  - Afford many ways to be occupied until the situation returns to normal
  - Help to reduce fear and anxiety by allowing people the means to quickly obtain the information they need

Prior to the advent of mobile devices, people experienced uncertainty and anxiety in addition to the challenges resulting from a particular disaster.

Along with CDC, FEMA emphasizes the importance of communicating with the public through mobile devices. FEMA created a mobile version of their website so it is easier to navigate from smartphones and other handheld devices "allowing the public to receive localized information during a disaster."[21]

In 2011, FEMA, along with the Federal Communications Commission and the cellular industry, launched PLAN (CMAS), so emergency managers can provide location-based alerts and warnings directly to a person's cell phone.[11] Some people call this a reverse 9-1-1 system because users don't have to sign up for the service and there is no cost to receiving the messages.

- **Community self-efficacy:** Mobile devices have empowered people to establish connections with others during a disaster situation while obtaining access to the information and knowledge they must take action for themselves. Stakeholders can collaborate and assist each other, enhancing their personal sense of control, and further reducing the load on official emergency responders.

  The use of mobile technology has the potential to facilitate two-way communication between responders and large groups of people affected by a disaster or crisis. The combination of mobile telecommunications devices and the Internet has the potential to provide higher capacity and more effective service. Together, they can create interactive communication mechanisms that can enable just-in-time messages and encourage collaboration among large numbers of residents and responders.

  Web 2.0 media have provided increased access to emergency response information. They have also increased the ability of those facing risks to share information. Social media help build networks among groups related to a crisis. This form of communication also allows participants to witness debates, participate in chat rooms, and access other sources for more information and expert opinions.

Challenges

In spite of the many advantages provided by social media and their use on mobile devices in an emergency, the history of responses to disasters in the era of new technologies demonstrates that this is a rapidly changing landscape requiring constant analysis and proactive planning. Recognizing the challenges to planners, responders, and victims posed by the use of mobile media during a disaster or crisis will allow crisis managers to anticipate problems and maximize performance:[19]

- **Lack of Training:** Although personal use of mobile media is quite common, leading to relatively high levels of competence, emergency planners should not assume that all personnel have the knowledge and training to use the technology appropriately during a disaster situation. Training is needed for those using one-to-many or many-to-many features of mobile technology.

Otherwise, these beneficial features could be misused or underused. All personnel working on the disaster scene, such as team leaders and dispatchers, should be equally skilled in the use of this technology. This will make the users of the devices interchangeable in the field. Training should also minimize the likelihood that unskilled users will consume available bandwidth and other wireless resources, which might be stretched very thin during an emergency. Responders cannot control the wireless resources used by victims. However informative messages suggesting ways victims should use their technology might be helpful.

- **Investment of Time:** A social media strategy requires considerable human resources for managing and updating. Staff requirements must include creating, managing, and monitoring the various forms of social media. The skill set necessary to use social media effectively can be daunting.
- **Resilient Infrastructure:** A sound and resilient infrastructure for mobile devices supports all new features, allowing for the exchange of photos, videos, and data among responders on the disaster scene, as well as with others in relevant organizations. The information that is shared on these devices should be duplicated in both online and offline platforms. A critical aspect of a resilient mobile infrastructure is the need to make security a top priority.
- **People With Limited Access:** CERC professionals and emergency managers should remember that not everyone in the population will have access to a mobile device. Additionally, having access does not mean it's regularly used. While many senior citizens own cell phones, they are not as frequent users as others. Alternate means for reaching these individuals must be included in any crisis plan. Efforts are being made to ensure a broader reach for these technologies.
- **Information Overload:** Among the challenges facing victims of a disaster is the risk of information overload caused by the extensive coverage available in both traditional and mobile media.

Responding to Social Media Regarding Serious Errors, Myths, and Misperceptions

The media have a good record of getting facts correct during crises. Unfortunately, social media-generated content sometimes gets basic facts wrong, reports rumors, or perpetuates false information. Blog posts, tweets, and Facebook status updates are in most cases unfiltered and have included inaccurate and conflicting information. These mistakes may not only harm the public, they can undermine the credibility of your organization. While media rumors, myths, and errors in press reports are usually self-correcting, the correction sometimes does not happen fast enough.

Mobile communication allows stakeholders to communicate with each other while bypassing gatekeepers in agencies and traditional media. Today's stakeholder groups expect to be informed rather than controlled or commanded. This raises significant challenges. Individuals supplying official messages must be completely transparent, operating with a 24/7 mentality, and recognizing their role in the international digital business community.

The perception of reduced official control of information due to mobile devices and social media raises the following problems for your organization, especially during a disaster:

- Stakeholders might receive false information regarding the situation.
- Information sent from mobile devices can spread virally in seconds.
- Disseminating rumors or false information during a disaster can be catastrophic.
- Mistakes or inappropriate behaviors from responders can be communicated widely and instantaneously to a world audience.
- News stories can spread incredibly fast and negative online comments can fan the flames, which can damage your organization's reputation.

Suggestions for Using Mobile Devices for Social Media

The primary issue facing emergency managers and communicators is a gap between expectations for the performance of social media and new mobile technologies on one side, and the needs and expectations of those impacted by the disaster on the other side. These challenges must be considered based on previous disasters and risks.

Taking full advantage of the opportunities provided by mobile devices while avoiding the potential pitfalls requires careful, thoughtful analysis long before any disaster emerges. Emergency managers and responders must be proactive instead of reactive to take full advantage of the immediacy provided by mobile media:

- Establish crisis communication plans that plan for the use of mobile devices.
- Conduct research on potential audiences that use mobile devices to access trusted sources of information.

Information supplied by emergency managers and first responders should be consistent. It should provide people with what they need to know to reduce uncertainty and receive necessary help, without producing overload. Emergency managers must build a mobile communications and online community. In this community, stakeholders can engage with others and obtain contact information for media outlets and other crisis communication representatives. Empowering stakeholders in a crisis situation can work to everyone's advantage.

Conclusion

For health communicators seeking ways to educate the public about risk, risk management, health, safety, and for those cases where information must be disseminated quickly about a crisis, social media are invaluable tools. They are so widely used that any effective communication plan must include a social media strategy.

Technology is a tool and not always the answer, but social media create new, flexible, timely, and interactive channels of communication that convey information about risks and crises. Use of mobile devices allows communicators to take social media with them. While social media and traditional media are converging, there are unique considerations in using this form of communication.

The basic principles of CERC, including the need to be right, be first, and be credible, still apply. Through social media it is possible to add "be interactive." The interactive nature of social media has shifted the traditional emphasis of CERC from the sender (the management agency or organization) to the receiver (those experiencing the crisis or risk). In fact, in many cases, the receiver has become the sender.

Worksheet 9–1: Social Media Communications Strategy Worksheet

Use this worksheet to help you strategize about your audience, and the potential social media tools and channels you may want to use for your campaign or communication activity.

1. Determine your target audience.

a. Describe the person(s) you want to reach with your communication; be as specific as possible.

b. More than one audience may be listed. Include a primary and secondary (influencers) audience if appropriate. (Examples: mothers of children younger than two years old living in Atlanta, pediatricians practicing in Nevada)

I.

II.

III.

2. Determine your objective(s).

a. What do you want to achieve through your social media outreach and communication? This could include something you want your target audience to do as a direct result of experiencing the communication.

b. Objectives may include (but are not limited to) the following:

   a. Provide information

   b. Highlight a campaign

   c. Encourage a health behavior

   d. Reinforce health messages

   e. Encourage interaction

   f. Obtain feedback/exchange ideas

   g. Collaborate with partners (Example: Increase awareness of immunization campaign.)

I.

II.

III.

c. Restate your objectives in SMART terms:

Specific: Explain, in concrete, detailed, and well-defined terms, what exactly you are going to do for whom?

Measurable: Your objectives should be quantifiable, with the source of measurement identified.

Attainable/**A**chievable: Can the objective be achieved in the proposed time frame with the resources available?

Relevant/**R**ealistic: Is the objective directly related to the overarching communication goal from your communication plan?

Time-bound: have deadlines been set?

(Example: By December 2012 (time-bound), there will be a 5% increase (measureable) in recognition of the immunization campaign name (specific), as measured through surveying, by moms of children under two in the Metro Atlanta area (specific).

Additional information on writing SMART objectives can be found at http://www.cdc.gov/healthyyouth/evaluation/pdf/brief3b.pdf and http://www.cdc.gov/phcommunities/resourcekit/evaluate/smart_objectives.html

3. Define audience communication needs.

People access information in various ways, at different times of the day, and for different reasons:

a. If possible, define your audience needs by using market research and other data. You can use the following resources:

a. "Organize Content Based on Audience Needs" from Webcontent.gov: http://www.usa.gov/webcontent/managing_content/organizing/audience_viewpoint.shtml

b. Pew Internet and American Life Project: http://www.pewinternet.org/

c. CDC eHealth Data Briefs: http://www.cdc.gov/socialmedia/Data/Briefs/index.html

b. Describe your audiences and their health information needs.

I.

II.

III.

4. Integrate your communication goals with your overall objectives.

a. Describe how your social media objectives support your organization's mission and overall communication plan.

b. How does it support other online or offline components? What events, either national, state, or local, present communication opportunities?

I.

II.

III.

5. Develop key messages.

Develop the key messages based on the target audience and objectives identified. (Example: for moms of young children to encourage late season flu vaccination, "It's not too late to vaccinate.")

I.

II.

III.

6. Determine resources and capacity.

Determine who in your organization will be responsible for implementation and the number of hours they can allocate for content creation and maintenance.

I.

II.

III.

7. Identify social media tools.

Determine what tools will effectively reach your target audience. Match the needs of the target audience with the tools that best support your objectives and resources. (Example: Because Facebook has a large population of young women who have children, is free, and requires minimal technical expertise, it may be a good tool for a mom-centered program while only requiring a small amount of funding for social media activities.)

I.

II.

III.

8. Define Activities.

Based on all of the elements above, list the specific activities you will undertake to reach your communication goals and objectives. (Example: Develop and promote Facebook fan page for diabetes education program.)

I.

II.

III.

9. Identify your key partners and their roles and responsibilities.

10. Define Success for Evaluation.

What are your measures of success? Your measures of success may be different depending on your goals and objectives.

I.

II.

III.

11. Evaluate.

Create an evaluation plan; see the Social Media Evaluation Plan for more information.

I.

II.

III.

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Notes:

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Chapter 10: Terrorism and Bioterrorism Communication Challenges

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In this chapter, the following topics are addressed:

- Chemical, biological, radiological, nuclear, or explosive (CBRNE) events
- Communication challenges
- Bioterrorism versus emerging infectious diseases and hoaxes
- Psychological responses to terrorism
- The Strategic National Stockpile (SNS) and emergencies

This chapter discusses two phrases that are commonly used in responses to terrorism and bioterrorism events:[1]

Crisis Management: Within the context of terrorism, this phrase refers to activities that involve identifying, obtaining, and planning the use of resources that a response organization may need to anticipate, prevent, or resolve an act of terrorism, or the threat of an act of terrorism.

Consequence management: Within the context of terrorism, "consequence management" refers to activities that a response organization might take to protect the health and safety of the public, restore necessary government services, and provide emergency relief to affected people, governments, and businesses.

Crisis management is mostly handled by law enforcement agencies, such as the Federal Bureau of Investigation (FBI). Consequence management is primarily controlled by state and local governments, with assistance from federal government agencies, such as the Federal Emergency Management Agency (FEMA), as required.

Communicators Face New Challenges

Most approaches to emergency management and response support an all-hazards approach to terrorism—the intentional use of violence, threats, and intimidation for political aims. Terrorists have become increasingly sophisticated in their forms of attacks.[2] This chapter describes many of the unique challenges that terrorism creates for communicators.

One of government's primary responsibilities is to protect its citizens. Given the relative sophistication of terrorists, this reality amounts to one of the most challenging priorities facing governments. Terrorism is a potential threat to national security and social stability. It is also a violent criminal act. Since the attacks of September 11, 2001, terrorism has become a more prominent national priority. The nature of the threat and the uncertainty associated with terrorism create particular challenges for communicators.

Chemical, Biological, Radiological, Nuclear, or Explosive (CBRNE) Events

Terrorist Events are Real

Terrorism is not new. It's been around as long as people have been willing to use violence as a political weapon. Title 22 of the United States Code, Section 2656f(d), defines terrorism as the "premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience.[3]

The types of terrorist attacks discussed in this section are rare and usually relatively limited in scope. For example, in 1984, a small religious cult in The Dalles, Oregon, led by self-professed guru the Bhagwan Shree Rajneesh, tried to influence the outcome of a local election by infecting the local population with *Salmonella*.[4]

The organism was spread through restaurant salad bars, grocery produce, and doorknobs. Although no one was killed, about 750 people became ill.[4] This was the first known bioterrorism attack during the 20th century in the U.S.

On September 11, 2001, several thousand people died from the air attacks on the World Trade Center, the Pentagon, and on the plane near Shanksville, Pennsylvania. Thousands more, including first responders, area residents, and workers, were exposed to potentially dangerous chemicals in the dust and ash clouds in Manhattan. Even more suffered issues of stress, including posttraumatic stress disorder (PTSD) and other mental health challenges.[5] The attacks on the World Trade Center and the Pentagon demonstrated today's role of public health workers in terrorist attacks.

Later in 2001, the well-known anthrax attacks took place.[6] This involved the intentional contamination of letters with this dangerous bacterium. Seventeen people were infected and five of them died. The attacks also created widespread social and economic disruption. The attacks demonstrated to the public how an infectious disease could be used in a terrorist attack. Public health professionals became central to the response. Since that time, CDC has paid even closer attention to reports involving viruses, bacteria, and toxins that might be used by terrorists to cause harm.

The bioterrorism agents that have the potential to create widespread harm to the public's health are ranked by categories. Category A biological diseases are those most likely to cause illness and death and are included in the following list:[7]

- Anthrax (*Bacillus anthracis*)
- Botulism (*Clostridium botulinum* toxin)
- Plague (*Yersinia pestis*)
- Smallpox (*Variola major*)
- Tularemia (*Francisella tularensis*)
- Hemorrhagic fever due to Ebola virus or Marburg virus

In addition to these agents, a large number of chemical, radiological, nuclear, or material substances could be used in a terrorist attack. Attacks with these agents are generally referred to as chemical, biological, radiological, nuclear, or explosive (CBRNE)[8] events.

According to the Department of Homeland Security (DHS),[9] "a biological attack is the intentional release of a pathogen (disease-causing agent) or biotoxin (poisonous substance produced by a living organism) against humans, plants, or animals." These attacks can cause the following:

- Illness
- Death
- Fear
- Societal disruption
- Economic damage

In addition, attacks on agriculture would primarily cause the following:

- Economic damage
- Social disruption
- Possible human casualties

With biological attacks, it is important to distinguish between agents that may spread from person to person, such as smallpox virus, and those agents that do not spread from person to person, such as anthrax bacteria.

DHS defines a chemical attack[10] as "the spreading of toxic chemicals with the intent to do harm." The variety of chemicals that could be used to do harm is quite large and includes the following:

- Chemical weapons
- Toxic industrial and commercial chemicals
- Toxins of biological origin, such as ricin

The severity of chemical attacks may vary based on the level of exposure, the form of the chemical, and the health of the people exposed.

A radiological attack,[11] according to DHS, "is the spreading of radioactive material with the intent to do harm." Radioactive materials are common and widely used in medicine, industry, and research. Like chemical attacks, radiological events are complex and must take into account many factors in determining risk. A radiological attack, such as a dirty bomb, is not considered a nuclear attack. A dirty bomb uses conventional explosives to disperse radioactive material.

DHS describes a nuclear attack[12] "as the use of a device that produces a nuclear explosion." A nuclear explosion would produce devastating waves of heat, light, air pressure, and radiation, followed by the production and release of radioactive material. Fallout from a nuclear explosion can expose people at great distances to radiation and radioactive material.

Attacks such as these are rare, but their potential health effects and other consequences would be severe. They would cause direct harm to the public. They would also create serious social disruption, psychological trauma, and a wide range of economic impacts.

Attacks with explosives, including improvised explosive devices (IEDs), are used to destroy, incapacitate, harass, or create a distraction. IEDs are homemade explosive devices. The term "IED" became commonly used during the Iraq War that began in 2003.[13]

Explosive devices can come in many forms. They can be as small as a pipe bomb, or much larger and capable of causing significant damage and death, such as the one used in the 1996 Oklahoma City bombing.[12] Explosives can be made from commonly available chemicals and materials.[14]

Category B attacks are serious, but not as serious as Category A. Category B agents are the second highest priority:[7]

- They are moderately easy to spread.
- They result in moderate illness rates and low death rates.
- They require specific enhancements of CDC's laboratory capacity and enhanced disease monitoring.[7]

Traits of a Terrorist Attack

Terrorism is a criminal act and this influences the response. The goal of terrorism reaches beyond the immediate victims and seeks to influence wider public opinion. Terrorists try to commit criminal acts of violence to draw attention to issues, causes, and ideologies. Attacks are in part publicity events. They are likely to focus on targets with larger symbolic meaning and shock value, or are planned to create widespread disruption. Terrorists often target transportation, communication, food production, or economic institutions. Terrorist acts are also designed to undermine faith and trust in institutions, including government.

An attack involving a chemical, radiological, or biological agent could serve terrorists by producing widespread public fear and social disruption. Although not as dramatic or visual as a major explosion, a chemical, biological, or radiological event would likely create significant public anxiety because the effects would not immediately be evident.

Law Enforcement and Public Health in Terrorist Events

The focus on criminal investigations and prosecution is a relatively new concept for public health professionals when responding to a public health crisis. It is important that public health communicators understand the challenges they face in releasing information in response to a terrorist event. First and foremost, the FBI must have final authority over the release of information about the incident. The Department of Justice (DOJ) and the FBI are committed to ensuring that all health-related information addressing a terrorist or suspected terrorist incident will be immediately released to protect the public's health and safety. In a disease outbreak, however, some points normally considered background information, such as descriptions of where a suspicious outbreak first occurred, may have to be withheld by public health officials to protect the integrity of the criminal investigation.

The response to a terrorist threat or incident within the U.S. will entail a highly coordinated, multiagency local, state, and federal response. The primary agencies that provide the core federal response are the following:

- Department of Homeland Security (DHS)
- DHS' Federal Emergency Management Agency (FEMA)
- Department of Justice's (DOJ) FBI
- Department of Defense (DOD)
- Department of Energy (DOE)
- Department of Health and Human Services (HHS)
- Environmental Protection Agency (EPA)

A number of policies and procedures are in place to clarify roles. The National Response Framework (NRF) replaced the National Response Plan in 2008.[15] NRF provides an approach for the U.S. in conducting all-hazards response. The National Incident Management System (NIMS)[16] provides a template to coordinate the efforts of governments, NGOs, and the private sector in response to any incident.

Coordination of agencies responding to a crisis is challenging, particularly when there are multiple interests as noted below:

- The U.S. Attorney General has the lead and responsibility for criminal investigations of terrorist acts and threats.
- The Secretary of DHS is the principal federal official for domestic incident management.
- The FBI serves as the primary investigating agency under DOJ.
- HHS serves as a support agency to the FBI for technical operations and to FEMA for consequence management.
- FEMA, under the direction of DHS, is the lead agency for managing the event aftermath.

The federal government also recognizes the critical role and considerable responsibility of state and local authorities who are charged with managing their own local and regional emergencies and disasters.

HHS provides technical personnel and supporting equipment to the lead federal agency during all aspects of a terrorist incident. HHS can also provide regulatory follow-up when an incident involves a product regulated by the Food and Drug Administration (FDA).

HHS assistance support includes the following:

- Threat assessment
- Epidemiology investigations
- Technical advice and assistance for the FBI:
  - Identification of agents used
  - Sample collection
  - Sample analysis
  - Onsite safety and protection activities
  - Medical management planning
- Operational support to FEMA:
  - Mass immunization
  - Mass prophylaxis (preventive treatment)
  - Mass fatality management
  - Pharmaceutical support operations through SNS
  - Contingency medical records
  - Patient tracking
  - Patient evacuation
  - Definitive medical care provided through the National Disaster Medical System

CDC's Strategic National Stockpile

CDC's Strategic National Stockpile, commonly referred to as SNS, has large quantities of medicine and medical supplies to protect the American public if there is a public health emergency severe enough to cause local supplies to run out. Examples of such emergencies could include a terrorist attack, flu outbreak, or earthquake.

Once federal and local authorities agree that SNS is needed, medicines will be delivered to health officials in the U.S. in time for them to be effective. Each state or territory has plans to receive and distribute SNS medicine and medical supplies to local communities as quickly as possible.[17]

Communication Challenges

How a Terrorism Incident Is Different From Other Crises

Chemical, biological, radiological, nuclear, or explosive substances used in a terrorist attack are CBRNE events.[8] Weapons of mass destruction (WMDs) use CBRNE elements to produce:

- Mass casualties
- Extensive damage to property
- Widespread social and economic disruption

WMD incidents are different from other types of incidents in several ways.[18] These must be considered when planning a communication response. First responders will need to be able to identify aspects of the incident, such as signs and symptoms exhibited by victims, and report them accurately. This will be key to maximizing the use of local resources and for triggering a federal response. Consider the following differences between WMD events and other public health events:

- There will likely be a stronger public reaction to WMD incidents than to other types of incidents. The thought of exposure to CBRNE events evoke fear in most people. Uncertainty also makes the public's response more severe.
- The interest and uncertainty will mean that information will flow very quickly through social media. Public information officers (PIOs) will need to engage with social media to keep up.
- The situation may not be recognized until there are multiple victims or casualties:
  - Most chemical and biological agents are not detectable by methods used for explosives and firearms.
  - Many agents can be carried in containers that resemble everyday items.
- Multiple events might occur. One event may be carried out in an attempt to influence another event's outcome.
- Responders are at a higher risk of becoming casualties:
  - Chemical and biological agents are not readily identifiable.
  - Responders may be contaminated before knowing an agent is involved.
  - First responders might be targets for secondary releases or explosions.
- The location of the incident will be treated as a crime scene:
  - Preservation and collection of evidence is critical.

- On-scene actions must be coordinated between response organizations to minimize conflicts with law enforcement authorities who will view the incident as a crime scene and other responders who view it as a hazardous material problem or a disaster scene.

- Critical facilities and large geographic areas may be contaminated:
  - Victims can unknowingly carry an agent to public transportation facilities, businesses, residences, doctors' offices, walk-in medical clinics, or emergency rooms because they don't realize they are contaminated.
  - First responders may unknowingly carry the agent to fire or precinct stations, hospitals, or to the locations of subsequent calls.
- Time works against responders. The incident can expand geometrically and very quickly, affecting mutual aid jurisdictions.
- Airborne agents flow with the air current and may spread via ventilation systems, carrying the agents far from the initial source. In addition, the effects of some chemicals and biological agents worsen over time.
- Support facilities such as utility stations and 9-1-1 centers, along with critical infrastructures, are at risk as targets.
- Specialized state and local response capabilities may be overwhelmed.

Reality Check

It's easy to see why a terrorism event can cause such strong emotional responses among the public. These events:

- Are outside of the control of the individual
- Are catastrophic or unfairly distributed
- Originate from a mistrusted source
- Are manmade
- Usually appear exotic or unfamiliar

The uncertainty of the event may further increase fear and require CERC concepts for management.

Terrorism and Public Information

Releasing information about a terrorist event will be complicated by the ongoing criminal investigation. At the same time, social media can be expected to provide a great deal of information, correct and incorrect, very quickly. Speed of response will be particularly important as a media strategy.

The DHS Secretary and the Attorney General (through the FBI) will be responsible for coordinating information dissemination to the White House, Congress, and other federal, state, and local government officials. In fulfilling this responsibility, the FBI, as the lead law enforcement federal agency, ensures that the release of public information is coordinated between crisis-management and consequence-management response entities. A national joint information center (JIC) under NIMS will serve as a focal point for coordination and dissemination of public and media information. A state-level JIC will likely follow the same protocols.[14]

Because of the high uncertainty and concern that comes with a CBRNE terrorism event, communicators will have to contend with an intense need for information. A carefully coordinated communication plan is particularly critical. Coordination of communication will occur through the JIC. In all cases, JICs should include federal response agencies as well as state and local PIOs.

"There are a number of things that have triggered the activation of a JIC in the past, but I think the most important was clearly when an agency is aware that there is a threat to public health and there is a responsibility to ensure that the public is aware of what is going on, what the risk is, and what to do to protect themselves."

Dr. Marsha Vanderford,
Associate Director for Communication,
Center for Global Health, CDC

Coordinating with State and Local Response Agencies[16]

Throughout the management of the terrorist incident, crisis-management and consequence-management entities will operate at the same time. They do this to ensure that the work of multiple response agencies is coordinated. They also work to produce a time-phased deployment of specialized federal resources that is tailored to the incident.

It is critical that all participating federal, state, and local agencies and organizations coordinate their activities to avoid chaos.

Once an incident has occurred, local government emergency response organizations will report to the incident scene and communicate appropriate notifications to local, state, and federal authorities. Control of the incident scene will be established by local response authorities such as a senior fire or law enforcement official. Command and control of the incident scene is the responsibility of the Incident Commander or Unified Command. Operational control of assets at the scene is retained by the designated officials representing agencies or organizations (local, state, or federal) providing the assets. These officials manage tactical operations at the scene in coordination with the unit commanders as

directed by agency counterparts at field-level operational centers. Field-level centers are not always used; assets may be managed from the emergency operations center in some cases.

Traits of Biological Terrorist Events

Traditional tools used by public health officials, such as infectious disease reporting systems, would likely be the first to detect an infectious agent released to cause harm. At that point, the role of public health personnel is to detect, investigate, and work with responders to reduce the public health impact of a bioterrorist event. This is most important with biological agents, which, after a silent release, may first present as unidentified illnesses.

The delay from a silent release would likely occur between the time a biological agent is released in a public place and the onset of illness. Doctors or emergency department workers may be the first to identify initial casualties. By then, the terrorist(s) may be far away. With some infectious diseases, only a short window of opportunity exists between the time the first cases are identified and the time the second wave of the population becomes ill. During that brief period, public health officials must do the following:

- Determine that an attack has occurred.
- Identify the organism.
- Develop strategies to prevent more casualties.

Strategies for managing the illness will involve effective communication with the public as well as a variety of public health partners.

Early detection and response are crucial and require some level of knowledge among medical professionals about possible biological terrorist agents. They must possess bioterrorism knowledge as they are in the best position to report suspicious illnesses. Early detection also requires access to a communication system between medical professionals and public health officials.

Preparing Public Health Agencies for Biological Attacks

Some epidemiologists are trained to detect and respond to biological attacks. The goal is to rapidly identify the organism involved which allows for a faster response. Increased laboratory capacity, well-trained lab workers, and needed supplies also help to speed diagnoses. In addition, the implementation of secure, reliable, and swift communication channels assists with early detection alerts and a quick response.

Many medical providers and public health officials have received additional training to become familiar with disease signs and symptoms rarely or never seen in the U.S. that could be used as biological weapons. The nation has stockpiled drugs, medical supplies, and vaccines within the SNS program. Such items could be needed to supplement local supplies depleted by a large-scale biological or chemical event.

Bioterrorism Versus Emerging Infectious Diseases and Hoaxes

Recognizing and Responding to Outbreaks

The intentional release of a biological organism could mimic a naturally occurring outbreak.[18] Recognition of and response to an undeclared use of an infectious disease agent by a terrorist will be much more difficult to detect than an announced biological release, a chemical release, or terrorist bombing.

Health investigators may not immediately know that an infectious disease outbreak is the result of an intentional release of germs. CDC has long recognized that selected illnesses and symptoms may result from nature or from bioterrorism.[18] Examples include:

- Encephalitis
- Hemorrhagic mediastinitis
- Pneumonia with abnormal liver function tests
- Papulopustular rash, such as smallpox rash
- Hemorrhagic fever
- Descending paralysis
- Nausea, vomiting, and diarrhea

The following list summarizes some characteristics of a disease outbreak that suggest the possibility of intentional use of an infectious agent:[18]

- Outbreak of a rare disease
- Outbreak of a disease in an area that normally does not experience the disease
- Occurrence of a seasonal disease at an inappropriate time of year
- Unusual age distribution of people involved in the outbreak
- Unusual epidemiologic features of an outbreak (e.g., a typical pathogen transmitted solely by food ingestion now found to be transmitted from person to person)
- Unusual clinical symptoms not typically seen with a known pathogen (especially respiratory symptoms)

In the last 40 years, CDC has been involved in the discovery of several emerging infectious diseases, either in the U.S. or around the world. Many past outbreaks, now known to be only nature at work, could have been initially mistaken for terrorism. These include the following:[18]

- **Legionnaires' disease outbreak, Philadelphia, 1976:** This outbreak was characterized by a severe pneumonia of unknown origin. The discovery of the cause of the pneumonia took many months.
- **Hantavirus pulmonary syndrome, Southwestern U.S., 1993:** This outbreak of severe pneumonia of unknown origin affected healthy young adults. This virus had never before been recognized in the U.S.
- **Foodborne cryptosporidiosis, Minnesota, 1995:** Investigators determined that a common organism previously associated with drinking contaminated recreational water, exposure to animals, or person-to-person contact was associated with contaminated chicken salad in this outbreak.
- **Antibiotic-resistant strain of plague, Madagascar, 1995:** This outbreak could have been attributed to genetic engineering for bioterrorism purposes, but it was found to be a naturally occurring strain.
- **Ebola virus infection, Zaire, 1995:** Researchers found this virus to be a 99% genetic match to the Ebola virus that caused the 1976 outbreak. This was unusual because most viruses mutate over time, causing a greater gap in genetic matching to strains from previous outbreaks. This finding raised the possibility of intentional reintroduction from a strain kept in a laboratory.
- **Nipah virus encephalitis, Malaysia, Singapore, and Bangladesh, 1999–2003:** Nipah virus is considered to be an agent with the potential to be used in bioterrorism. It was first identified in 1999 following a naturally occurring outbreak in Malaysia and Singapore. It re-emerged in Bangladesh in 2001 and 2003.[19]
- **H1N1 influenza pandemic, Worldwide, 2009–2010:** This pandemic first attracted attention as an outbreak of influenza-like illness in Mexico in March and April 2009.[20] It developed into a worldwide pandemic. The influenza virus that caused this pandemic had characteristics of multiple other influenza viruses. This led to discussions, including online discussions, of possible bioterrorism.[21]

Whether epidemics result from terrorism or natural factors, the public health community must detect and quickly investigate outbreaks in the U.S. and worldwide. New disease agents could simply be nature at work. The past illustrates that it is best to be cautious and not prematurely assume that bioterrorism is the cause of an emerging infectious disease outbreak.

Reality Check

An outbreak could unfold such that an early and reasonable assumption of bioterrorism will be made simultaneously by the media, the public, and official responders. This happened with the anthrax letters in 2001.

In the anthrax response, some suggested early on that the anthrax death of a National Inquirer employee was likely from natural causes, not from bioterrorism, because he was an avid fisherman with plenty of outdoors exposure.

In a potential bioterrorism response, there is no room for assumptions:

- Nothing is officially bioterrorism until a designated official, usually law enforcement says it is.
- The FBI should publicly announce what is or is not deemed a bioterrorist act.
- Over-reassurance can impede the government's credibility.

Identifying Bioterrorism

In fall 1999, West Nile virus first appeared in the western hemisphere.[22] It debuted in the media capital of the world, New York City. Since then, West Nile virus spread throughout the U.S., Canada, Mexico, the Caribbean, and Central America.

West Nile virus' notoriety has rivaled such deadly diseases as plague, Ebola, and hantavirus. Perhaps, it was because this exotic disease arrived in local neighborhoods and communities. In addition, the disease killed birds. Every dead bird was an additional reminder of the outbreak. Unfortunately, for public health communicators, the number of questions about when, where, and how it would strike, was much greater than the available answers at the time.

New York City public health and medical professionals had well-developed plans and training for responding to emerging diseases and bioterrorism. Some experts believe that these preparations enabled them to recognize that the initial cluster of illnesses was unusual and bring it to the attention of public health officials more quickly. Infectious disease experts are taught, "When you hear hoof beats think horses, not zebras." This describes a medical philosophy of considering the most obvious explanations first, before moving on to less likely explanations. When monitoring the public's health for both an emerging infectious disease and a potential bioterrorist act, epidemiologists must think horses and zebras. This means they must be sure to consider all explanations, not just the obvious ones. That distinction is important in early responses to disease outbreaks regardless of whether the virus is supplied by nature or by people.

Although public health was considering all explanations, some in the media theorized that this was a case of domestic bioterrorism. A New Yorker magazine article released in October 1999 about West Nile virus, after the first wave of questions about the new virus had been answered, might have led to a potential media frenzy.[23] The article asked if West Nile virus could be a case of bioterrorism. The day the article's advance news release went to national media, the CDC issued a statement reassuring New Yorkers that as awful as West Nile was, it still looked like nature at work. Working closely with CDC, local media officials minimized the plausibility of bioterrorism theories. Within 24 hours of the CDC statement, the media frenzy faded.

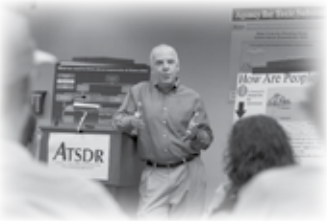
These communication approaches are helpful:

- Policy on commenting about potential bioterrorism aspects of an outbreak investigation should be made in advance and be included in your CERC planning.
- Spokespersons should not mention bioterrorism as a possibility unless there are compelling reasons to do so. Mentioning bioterrorism is likely to feed speculation.
- If media asks, organizations can respond by saying, "There is no reason to suspect that this is anything other than a natural outbreak."

By stating officially to the media that West Nile virus was believed to be nothing more than nature at work, the CDC set a challenging precedent. For example, what if, in the course of the next outbreak, early suspicions about bioterrorism are raised? Should those suspicions be confirmed? CDC experts can name many disease outbreaks with characteristics that could have been believed at first to be the work of terrorists.

CDC uses the following general format in responding to media speculation about bioterrorism during the early stages of an ongoing infectious disease outbreak investigation:

> We're all understandably concerned about the uncertainty surrounding this outbreak and we wish we could easily answer that question today. For the sake of those who are ill or may become ill, our medical epidemiologists (professional disease detectives) are going to first try to answer the following critical questions:
>
> 1. Who is becoming ill?
> 2. What organism is causing the illness?
> 3. How should it be treated?
> 4. How can it be controlled to stop it from spreading?
>
> A question that disease investigators routinely ask is: "Could this outbreak have been caused intentionally?" [Your organization name] must keep an open mind as data in this investigation are collected and analyzed.



> With public safety in mind, we should not speculate on the organism's route of introduction until we have enough data to formulate a theory. We must consider the possibility that we may never have the data to answer this important question, based on epidemiology alone.
>
> Any specific questions about the FBI's involvement in this outbreak investigation should be referred to them. However, the FBI and [your organization] have a strong partnership in the investigation of unusual disease outbreaks and have worked comfortably together in past parallel investigations.

All messages should be coordinated carefully with other response agencies. This is particularly important when considering the potentially sensitive questions surrounding a possible bioterrorism event.

CDC Media Strategy during a Possible Undeclared Bioterrorism Event

During all infectious disease outbreak investigations, CDC will not comment to the media about the possibility of an outbreak being a bioterrorist event; nor will it comment on the FBI's participation in an investigation unless first confirmed by the FBI to the media.

CDC will inform the media that all disease outbreak investigations routinely include questions about the possibility of an intentional act and that it is CDC's policy not to speculate about this possibility during an outbreak investigation. All media will be referred to the FBI while an investigation is ongoing for comment about the possibility of bioterrorism.

CDC will provide factual information as requested. CDC will not release information about an ongoing investigation unless first coordinated with the affected state; however, CDC can confirm that it has been invited by the state to assist in an investigation. CDC can release information about a multistate investigation after the state health departments (health officer and information officer) are notified.

CDC will not speculate to media or the public about the possibility of a bioterrorist act, nor will it respond to alarming scenario questions of a general nature during a suspected event. During an infectious disease outbreak investigation, CDC will defer to the FBI any speculation about whether an event may be a bioterrorist event.

Preparing for a Hoax

Hoaxes are false claims that, at least momentarily, appear credible. When these false claims reach the public, they can considerably disrupt daily activity and cause lasting economic harm. For example, during the anthrax attacks of 2001, many perpetrators sent benign white powder substances in letters with notes claiming the substance was anthrax. These hoaxes caused momentary fear as recipients waited for verification that the contents were actually harmless.

The power of hoaxes is in the uncertainty they create. Agencies often have a good idea that the claims are false. The difficulty is that if they are incorrect in assuming a hoax is false, the result could be disastrous. Imagine if a school ignored a bomb threat only to have a major explosion in a highly populated area of the school. Thus, agencies are typically forced to dedicate considerable time and resources to investigating hoaxes.

The Internet and social media provide almost limitless opportunities to spread hoaxes. DHS maintains an Internet website to label and debunk hoaxes as soon as they are identified.[24] The management of hoaxes requires an effective and rapid social media strategy.

Agencies face a paradox when responding to hoaxes. They are forced to make a serious response to all claims. Agencies need to be open and honest about the fact that they cannot, beyond a shadow of doubt, deny the authenticity of a suspected hoax without taking appropriate precautions and completing a thorough investigation. As such, hoaxes can drain valuable resources.

Key communication strategies during a confirmed hoax include:[23]

- Attacking the source
- Challenging the claims made in the hoax
- Emphasizing that public safety remains the agency's primary value

Attacking the source involves stressing the harm caused by the hoax and revealing the misguided motives of the perpetrators. Challenging claims occurs as the agency generates evidence to invalidate the hoaxers' allegations.

The value of public safety must remain of utmost importance throughout your agency's response. It is possible to say, "Although the accusation is not credible, our agency is responding in this way out of an abundance of caution and concern for public safety."[25]

Foot and Mouth Hoax in New Zealand

New Zealand's Ministry of Agriculture and Forestry (MAF) provided a model response to a hoax in 2005.[25] The Prime Minister received a letter claiming that a group had released a vial of foot and mouth disease virus on Waiheke Island. Had the claim been true, the financial impact would have been colossal for New Zealand and its farmers. The MAF was open and honest in its communication.

The agency shared its anger toward the perpetrators with farmers and reporters. Animals were tested and the feasibility of infecting the cattle in the precise manner described in the threatening letter was subjected to rigorous scientific debate.

The MAF assured farmers that the agency was taking steps to protect both the livestock and the reputation of New Zealand's farmers. New Zealanders waited anxiously for six days as information was gathered. In the interim, the hoaxers sent a follow-up letter with outlandish claims that were deemed scientifically impossible. This letter, along with negative test results and scientific discussion, enabled the MAF to declare the event a hoax within a week.

The MAF's patient and thorough response allowed the agency to maintain the confidence of New Zealand's citizens and the international marketplace. New Zealand's farmers saw no lasting impact of the event on consumption and exportation of their product.

Psychological Responses to Terrorism

The public will likely have a stronger public reaction and risk perception following terrorist incidents than other types of crisis events. This is due to the intentionality and uncertainty that accompanies such events. The intense media coverage of international terrorist attacks and frequent government warnings of future attacks cause some people to continue to experience anxiety and fear.

A review of several research studies on the medical and psychological effects following the September 11, 2001, attacks concluded the following:[5]

- The likelihood of developing PTSD after the attacks was influenced by direct exposure, knowing someone who perished in the attacks, number of hours of watching television, and prior mental illness.

The intense media coverage of international terrorist attacks and frequent government warnings of future attacks cause some people to continue to experience anxiety and fear.

- People who are anxious about potential future attacks are more likely to change their behaviors. One year after the attacks, some people had become more anxious and exhibited such behavioral changes as avoidance of crowds, avoidance of flying, and increased watching of programs related to world politics in general. People who were depressed were more likely to increase their consumption of alcohol, cigarettes, and marijuana.
- Trauma also has the potential to bring out the best character strengths in some people. Examples include gratitude, hope, kindness, leadership, love, spirituality, and teamwork. This reaction held true both immediately following the attacks and 10 months later.
- People may first seek support from family and friends rather than health professionals. Both immediately and in the months following the attacks, the majority reported that they did not seek help from counseling services but rather found support by talking to family and friends.
- There are different gender responses to terrorist attacks. Women reported more psychological distress, but more positive coping mechanisms than men.
- Responders need to be taken care of, too. Mental health professionals, social workers, and medical professionals assisting victims of the attacks and disaster workers at Ground Zero experienced increased levels of emotional exhaustion, anxiety, depression, and psychological distress.

The Strategic National Stockpile (SNS) and Emergencies

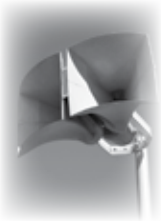
The SNS Program[17]

In anticipation of a natural or manmade infectious disease outbreak, CDC's SNS maintains large quantities of medicine and medical supplies. This stockpile is composed of multiple, comprehensive collections of supplies stored in strategic locations around the U.S. to ensure rapid delivery. It is maintained to protect the public if there is a public health emergency, such as a terrorist attack, widespread flu outbreak, or natural disaster that is severe enough to cause local supplies to run out.

Should federal and local authorities agree that SNS is required, SNS staff will ship drugs, vaccines, medical supplies, and medical equipment to states and local communities. The first of these supplies will arrive within 12 hours of the federal decision to deploy. Other shipments will continue to be delivered for as long as needed. SNS experts can assist states, territories, and communities with receiving, storing, staging, distributing, and dispensing SNS materials. Emergency communication plans support SNS staff deployments and are part of every regional, state, territory, or local area's SNS plans.

SNS supplies typically will arrive by air or ground in two shipment phases:

- The first phase is called a 12-hour push package. The "12-hour" refers to the package's transit time: 12 hours or less after the federal decision to deploy. The word "push" is used because a state need only ask for help—not for specific items—and the SNS will "push" or ship everything



a state needs in response to a broad range of threats in the early hours of an event. The 12-hour push takes place when people are critically ill or dying from an ill-defined threat.

- Second-phase shipments will normally begin within 24–36 hours after a state identifies a threat. Shipments contain large quantities of specific items designed to deal with a defined threat. Second-phase shipments are referred to as vendor-managed inventory or VMI. This is because major pharmaceutical vendors store second-phase pharmaceuticals until they are shipped.

The 12-hour push package includes large quantities of supplies that states and communities will need to respond to such nerve agents as sarin and biological agents such as anthrax, plague, and tularemia. The package will enable state and local authorities to immediately treat thousands of symptomatic individuals and protect hundreds of thousands more who may have been exposed.

CDC scientists work closely with the intelligence community to assess the probability of various biological and chemical threats. Once the scientists identify the threats, they create protocols for therapeutic treatment and preventive medication. The protocols determine which drugs and other supplies are in the SNS. Because threat assessments, treatment protocols, and other factors change over time, the items in the 12-hour push packages are also subject to change.

SNS Communication Concerns

Crisis communication plans should include special consideration of SNS issues. During a large-scale emergency, public fear and anxiety could impair the ability of agencies to distribute and dispense disease-preventing medicines to those who need it. An effective public information plan, designed to inform and reassure the public, will earn public confidence and cooperation.

Your pre-crisis planning is critical and should be consistent with principles described in previous chapters. Plans should take the following into account:

- Audience characteristics
- Audience needs
- Channels of communication, including using public health partners and stakeholders to distribute messages

Carefully coordinate all messages and integrate the SNS communication plan into the larger SNS plan.

SNS will be deployed only in the case of a significant threat to the public health. The act of deployment will signal that the event is very serious and will generate a requirement for communication. Therefore, in your plan, you should consider specific communication channels, partnerships, and staffing pools that support public information release, reproduction, and dissemination. Also consider volunteers or contracted professionals to assist with the following:

- Public information campaigns
- Printing needs and distribution of printed materials
- Onsite public information
- Onsite interpretation for people who do not speak English
- Resources for the hearing impaired

A state or community's SNS program will require careful coordination and planning regarding logistics and the medical needs of various audiences. You will need simple and accessible messages to inform the public. Storage location of all informational material, including electronic versions, should also be considered. Methods for reproducing and passing out information must be there, as well.

In your planning, consider the following:

- Use Emergency Use Authorization (EUA) information sheets. They are required by the FDA and must be provided along with any medication that is dispensed "off label" during an emergency. For example, antibiotics expected to be dispensed during an anthrax attack are medically safe for such use, but may not be specifically licensed for it. Current versions of EUA information sheets are available for state and local SNS planners.
- Incident-specific messages for people who are potentially exposed will need to say where they should go for preventive medications if they are well. These messages should also say where people who are potentially exposed need to go if they are sick. The messages need to make clear which people should go to dispensing sites.
- Include information about who should seek preventive treatment at a dispensing site, often called a point of dispensing or POD, and who should seek symptomatic treatment at a treatment center. Provide directions to and information about PODs. Also include information and directions for treatment centers. For both, be sure to include the following:
  - Hours of operation
  - Access to each site (the best way and an alternative route)
  - Driving and parking instructions
- Include information about the best modes of transportation to get to the dispensing site, such as walking, public transportation, or driving. If you list public transportation, include information on bus departure locations and schedules.
- Include threat-specific information about the nature of the disease and appropriate preventive medications.
- Disseminate information through multiple communication channels.

- Establish 24-hour hotlines in coordination with other agencies. It may help provide reassurance and updates to the public. By doing so, you will lessen the time they spend in clinics asking questions. The hotline can include separate lines for physicians, those seen in a clinic, and the general public.
- Include plans for communicating with patients and their caregivers in clinics, using items such as flyers, posters, and other printed material.
- When developing communications materials, make sure you include important information in the languages spoken in your community. This includes medical forms and paperwork, television and radio public information announcements, scripts, and videotapes that dispensing sites use to issue preventive medications to the public.
- Use frequently asked questions (FAQ) sheets for threat-specific diseases. These can be found on CDC's Emergency Preparedness and Response website at http://emergency.cdc.gov/bioterrorism/factsheets.asp.
- Make sure the public knows what medical history and related information to bring when seeking assistance:
  - Form(s) of identification
  - Information they must present when picking up medications for family members
  - For children: required weight, age, and health information; drug allergies; and current medications
  - For adults: health information, drug allergies, and current medications

If members of the public must be given medications, make sure they are also given information about those drugs:

- Explain the reasons for using specific drugs or changing drug regimens. The cultural and ethnic sensitivity of this information is important. You need to make sure some groups do not think others are getting preferential treatment because they may receive different drugs. The reasons for using specific drugs will affect the quantities of those drugs that are provided to dispensing PODs or treatment locations. Your explanation will make a difference in how the public accepts these medications.
- Provide information about the importance of taking the medication. Stress the importance of taking all of a prescribed course of drug treatment. For example, someone who has potentially been exposed to anthrax needs to take the whole 60-day course of this antibiotic. This information affects the demand for SNS resources and minimizes the likelihood of additional people becoming symptomatic.
- Be aware of the danger of overmedicating. Focus on dispelling the false notion that if two doses per day are good, four or six must be better. Reduce the demand for SNS supplies by discouraging individuals from acquiring drugs from multiple dispensing sites. A secondary goal is to minimize the possibility that some individuals will take more of a drug than is safe.

Reality Check

In fall 2001, health authorities put at-risk anthrax individuals in one area on ciprofloxacin. This antibiotic is effective, but causes adverse reactions in some people.

- Later, the determination was made that doxycycline was also effective, and authorities put subsequent at-risk individuals on doxycycline to eliminate drug reaction problems arising and to reduce cost.
- In their rush to protect everyone, authorities failed to adequately explain their reasons for changing the medication.
- The ensuing outcry forced public health officials to spend valuable time dealing with public complaints rather than protecting the public.

Medication compliance is a well-known problem and will be especially challenging during an emergency if the following are true:

- The treatment period is long
- The prescribed drugs cause unpleasant side effects
- Outbreaks stop before the public finishes their required medications

After the anthrax attacks in fall 2001, CDC surveyed those who received preventive drugs. Despite initial counseling and strong local appeals that encouraged people to finish the 60-day course of treatment, CDC found that only 45% adhered to the required time plan. Reasons for sporadic or discontinued use included the following:

- Side effects of the medication
- A perception they were no longer at risk for anthrax

Conclusion

The all-hazards approach is most appropriate for emergency management and response.

However, terrorism involving CBRNE agents will create unique challenges. Many programs and much effort have been directed toward preparing and developing response capabilities. These include new surveillance and monitoring systems, new training, and expanded programs such as SNS. Bioterrorism creates unique challenges for public health, including an enhanced need for CERC within the context of a criminal investigation.

Human-caused outbreaks versus the natural origins of disease, along with the possibility of a hoax, create additional uncertainty for everyone. While rare, and usually of limited scope, bioterrorism is a real and significant danger. Careful CERC planning and preparation, in collaboration with your organization's stakeholders and partners are required to address these threats.

Checklist 10–1. Strategic National Stockpile Communication Needs Assessment

As a state or local public health communicator, you should contact the project area official managing SNS planning under the cooperative agreement to coordinate health communications needs.

Pre-event Planning

- ❑ Do you have FAQ sheets for threat-specific diseases (found on CDC's Emergency Preparedness and Response website at http://emergency.cdc.gov/bioterrorism/factsheets.asp)?
- ❑ Do you have threat-specific information about the nature of the disease and appropriate preventive medications?
- ❑ Have you considered how to provide disease and drug information prepared in the multiple languages spoken by your community?
- ❑ Are processes in place to create incident-specific messages for people who are potentially exposed? These messages will need to say where they should go for preventive medications if they are well. These messages should also say where people who are potentially exposed need to go if they are sick. The messages need to make clear which people should go to dispensing sites.
- ❑ Are processes in place to ensure that PIOs know which dispensing and treatment locations are active?
- ❑ Are media, public health partners, and other stakeholders aware—before an event—of the need to disseminate SNS-related information and messages?

Your plan should include the following:

- ❑ Assurance for dissemination of information through multiple communication channels
- ❑ Plans for communicating with patients in the clinic (flyers, posters, printed material, etc.)
- ❑ Establishment of 24-hour hotlines in coordination with other agencies, which can include separate lines for physicians, those seen in the clinic, and the general public.
- ❑ Plans to use multiple languages in the information your organization hands out. You need to consider the languages spoken by ethnic populations within your community. This includes medical forms and paperwork, television and radio public information announcements, scripts, and videotapes that dispensing sites use to issue preventive medications to the public.
- ❑ Storage location(s) of all informational material (including electronic versions).
- ❑ Methods for reproducing and disseminating informational materials during an emergency.

- ❑ Specific communication channels, partnerships, and staffing pools that support public information release, reproduction, and dissemination. This includes possible volunteers or contracted professionals to assist with public information campaigns, printing needs, onsite public information, onsite interpretation for people who do not speak English, and resources for the hearing impaired.

To determine how much SNS-related information you will need to provide to site locations, consider the following:

- ❑ Is the agent contagious?
- ❑ Who should be concerned about exposure?
- ❑ Who should seek preventive treatment at dispensing sites and who should seek symptomatic treatment at treatment centers?
- ❑ Directions to and information about dispensing and treatment locations.
  - ❑ When will the dispensing operation start and what hours will it be open?
  - ❑ Where is the nearest dispensing site?
  - ❑ What is the best way to get to each dispensing site and an alternative route?
  - ❑ Where is there parking at each dispensing site?
  - ❑ What is the best way to get to the dispensing site (e.g., walk, use public transportation, drive)? In the case of public transportation, do you have bus departure locations and schedules?
  - ❑ What is the dispensing process?
  - ❑ What form(s) of identification are needed?
  - ❑ What information must someone present when picking up medications for family members? For children: required weight, age, and health information; drug allergies; and current medications. For adults: health information, drug allergies, and current medications.

Information about the Drugs the Public Must Take

The information should include the following:

- ❑ Reason(s) for using specific drugs or changing drug regimens. Remember that cultural sensitivities of this information are important to ensure that some groups do not think others are getting preferential treatment because they receive different drugs. The reasons for using specific drugs will affect the quantities of those drugs that are provided to dispensing PODs or treatment locations. Your explanation will make a difference in how the public accepts these medications.
- ❑ The importance of taking the medication. Stress the importance of taking all of a prescribed course of drug treatment. For example, someone who has potentially been exposed to anthrax needs to take the whole 60-day course of this antibiotic.
- ❑ Messages about the importance of medication compliance, especially if the treatment regimen is long, the prescribed drugs cause unpleasant side effects, or the outbreak stops before the public finishes the required medications.
- ❑ Messages to warn patients of the danger of overmedicating. Focus on dispelling the erroneous notion that if two doses per day are good, four or six must be better. Reduce the demand for SNS supplies by discouraging individuals from acquiring drugs from multiple dispensing sites or taking more of a drug than is safe.

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CRISIS EMERGENCY RISK COMMUNICATION
2012 EDITION

Chapter 11: Human Resources for CERC

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In this chapter, the following topics are discussed:

- Working with responders from varied backgrounds
- Appropriate staffing and preparation to maintain the well-being of communicators
- Emotional health issues for those responding to a crisis
- Emotional health issues for families of deployed emergency response workers

Crises, disasters, and emergencies require diverse resources for the right preparation and response. This includes human resources. Disasters bring many people together with different training, experiences, and backgrounds. These events can create stress that complicates human resource management.[1]

Working with Responders from Varied Backgrounds[2]

A crisis or disaster brings people together who might not normally interact.This includes people with diverse backgrounds, training, and perspectives:

- Politicians, who may have little formal training for emergency responses and may need to interact with professional emergency management personnel
- Volunteers, who may be participating in a number of activities, such as assisting evacuees, collecting information, and dispensing food and water
- Public health professionals, who may be working side by side with law enforcement officials
- Professional leadership, who may be representing businesses, nonprofits, faith-based organizations, and many communities

"When you do hiring, you can hire for skill, but you also want to hire for aptitude, and I definitely looked for aptitude and learning new things, aptitude and technology, and a desire to play around, experiment and see what you can do with new things."

Leng Caloh,
Interactive Strategies Manager,
KPBS San Diego

While the people involved in a crisis response usually share common goals, they often have varied training, backgrounds, expectations, and experiences.[3] This at times can create conflicts and make coordination challenging. A crisis is always a complex work environment, with huge pressures and stress, and long work hours. In many cases, the event will take place in a remote location. Participants are making decisions and taking actions that affect the lives and well-being of others.

Even when you are focused on those who have been personally affected by the crisis, it's necessary to ensure an effective response for all who are involved. Therefore, the well-being of your responders requires special attention.[4,5,6]

Appropriate Staffing and Preparation to Maintain the Well-Being of Communicators

Public information officers (PIOs) and other CERC communicators are responders who interact with other first responders. Like other responders, they are often extremely committed and think of others before themselves. While it is this generous outlook that calls them to this work, it is imperative that they, and those managing them, be encouraged to pay close attention to their physical and emotional well-being throughout the crisis. The strength and resilience of responders is the engine behind a successful response and recovery.

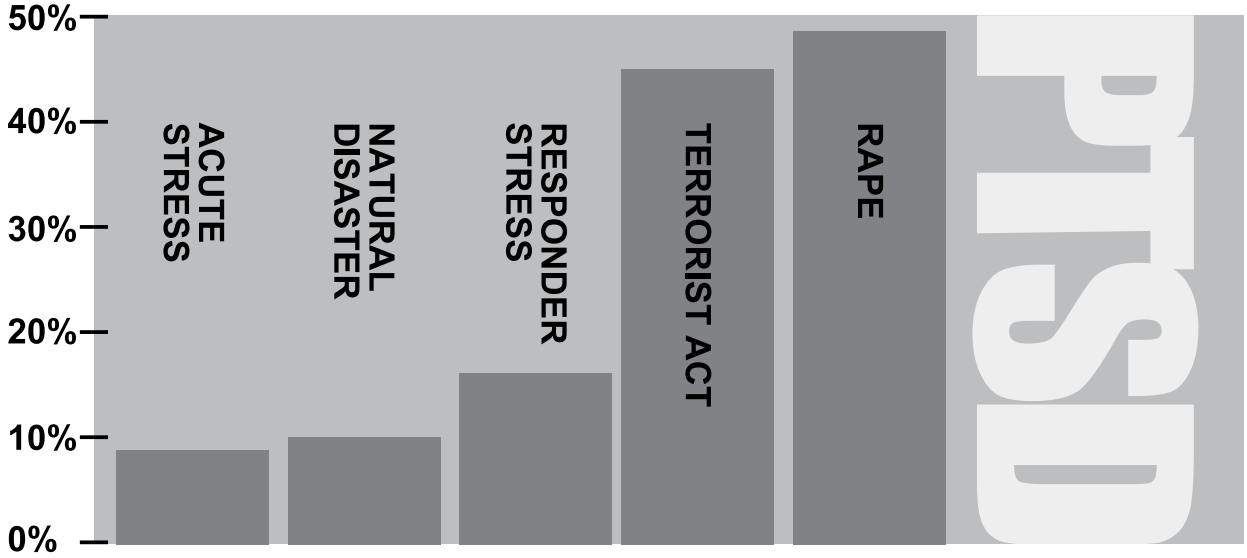
PIOs and CERC professionals are often placed in particularly stressful situations as they face media, people directly affected by the event, politicians, and other responder groups. Communication professionals need to pay close attention to their preparation, as well as their physical and emotional needs, as each crisis evolves. This chapter discusses important steps to ensure that they can function at an optimum level as they respond to the event.

First Responder Stress

Public health officials and CERC professionals are first responders and are likely to experience unique levels and types of stress. In addition, they may be asked to develop messages to help manage the stress that other responders experience. These kinds of problems range from acute or short-term stress reactions to the long-term effects of post-traumatic stress disorder (PTSD).

Table 11–1 illustrates that as the stress of an event increases, so does the rate of stress-related disorders, such as PTSD.[7]

Table 11–1. Rates of PTSD by Event[6]



Traditional first responders, such as police, fire, and EMS workers, are trained to deal with the daily stress of performing their jobs. Nevertheless, their proximity to death, severe trauma, and perceived threat to themselves and their families can increase their level of stress and present new challenges including methods for coping. According to one study of first responders, "Firefighters and other emergency responders follow the principle: Risk a life to save a life."[8] During a terrorist attack, this response may be even more intense. The threat and horror of the event, the intensity of the work, the long hours and duration, and the uncertainly can all contribute to unusually high levels of stress. Communication personnel may not receive the type of instruction they need to be ready for first-responder stress as part of their routine training.

Health-care professionals and trade workers also experience increased stress as they are called to assist the victims in the aftermath of a crisis. For example, following the attacks on September 11, 2001, mental health professionals, social workers, and medical professionals assisting victims and disaster workers at Ground Zero experienced the following:

- Increased levels of emotional exhaustion
- Anxiety and depression
- Psychological distress[9]

One study documented the stress associated with the terrorist attack: "Over 100 cases of psychological stress among construction and trades personnel were treated during the first nine weeks at the World Trade Center. The consensus is that many more experienced such stress, but did not seek treatment."[6]

Since 2001, public health officials and CERC professionals have been recognized as first responders for crises and emergencies because they have to deal with the intense pressure from the media and general public to provide information immediately and accurately throughout the duration of the crisis.[10]

Responders have the added stress of their homes being damaged or lost, and family, friends, and pets possibly missing or dead. They often struggle between their duty to their work and their duty to family and friends. If concerns for keeping responders safe during crisis response aren't addressed by employers prior to a crisis, one can expect higher rates of the following:[7,8]

- Distraction
- Poor decision making
- Absenteeism
- Refusal to come to work

Pre-crisis Planning for Human Resources[11,12]

The following is a list of pre-crisis activities that can be useful to include in human resources planning:

Provide job training: The following is a human resource communication checklist when considering team training:

- Train communicators for designated emergency response tasks.
- Ask the following questions during training exercises:
  - Are phone numbers, including cell phone numbers, and e-mail addresses up-to-date in your plan?
  - Does your team respond within an appropriate timeframe after they are alerted?
  - Are backup personnel ready if primary responders are away or out of reach?
  - Can an early skeletal staff produce, get authorization for, and then release an initial news statement within 2 hours of obtaining information?
  - Are the initial steps such as verification, notification, clearance, and coordination executed properly?
  - Is equipment adequate, including personal protective equipment?
  - Will personnel pulled in from other departments or agencies have sufficient access to your organization's computer files and network?
- Refresh training routinely. At a minimum that training should include a review and update of the crisis communication plan as well as a discussion of roles. Create training drills routinely (possibly unannounced) to see how effectively your crisis communication operations can get up and running. They are also good ways to bring people with diverse backgrounds together.

  In addition to tabletop exercises and drills, technological advances in communication are reshaping crisis communication. Social media, with its rapid development, has created a new training need. Communicators must take the required time to regularly upgrade their skills in these and other areas.

  Training has the added benefit of reducing uncertainty and enhancing confidence. Public health professionals will be more confident when they can say, "I have trained for this and I know the people with whom I will be working."

Provide training in stress management: PIOs and other communicators will experience major time constraints and must balance competing interests of multiple stakeholders. They may be asked to make and implement decisions that affect the health and well-being of others. They may face angry constituents and respond to emotionally challenging questions. During a crisis, they will function under conditions of very high uncertainty, which also adds to stress.

Techniques and skills that reduce and manage stress can be very helpful for first responders, including crisis communicators. Although these techniques and skills cannot eliminate stress, they can help reduce its impact. It will be important to help communicators and others managing a response understand, anticipate, and prepare for the stress. Some stress relief techniques include the following:

- Exercise
- Meditation
- Relaxation
- Development of support systems

Not every technique will work for every person. Individuals need to learn what works best for them. It is important to recognize that stress from different sources adds up to greater total stress. Managing stress in one's personal life will reduce the overall stress that might be experienced during a disaster.

Stress Management Techniques to Consider

Individual stress management training consists of learning to control and even turn off the body's fight-or-flight response. The body has another counter-balancing reaction to stress described by Dr. Herbert Benson called the relaxation response, which returns breathing, heart rate, and minds back to a relaxed state.[13] You can learn to turn on this relaxation response, by learning various methods of relaxation training.

Relaxation can be achieved through many kinds of meditation: Tai chi, yoga, and the technique of progressive relaxation or biofeedback training are some well-known methods. Other stress management techniques include journal writing, aerobic fitness, muscle strength training, and maintaining proper nutrition.

Talking to close friends or coworkers and receiving feedback is a form of emotional release that can allow people to work through feelings and make sense of the experience. Social support can aid the process of putting a traumatic experience into context so that it no longer exerts an overly powerful influence on one's life. If symptoms persist over time, social support may not be enough and a referral to a psychological professional should occur to see if the person needs therapy or professional aid.

Acknowledge levels of experience: Develop a system for assessing expertise so team members can be promoted as they gain more skills and experience in responding during an emergency. For example, the American Red Cross ranks responders, from technician to specialist to coordinator, and then assistant officer and officer.[9] The American Red Cross offers different tracks depending on level of emergency response experience and if they are volunteers, staff, or subject matter experts (SMEs) such as mental health workers, social workers, or nurses. Informal and formal performance reviews of members also help to give important feedback as well as develop leaders. Not everyone with specialized skills wants to lead, but their level of emergency response expertise should be recognized.

The Federal Emergency Management Agency (FEMA) offers training options for PIOs. These include basic and advanced PIO courses. Their courses range from a classroom-oriented National Incident Management System (NIMS) training, to more scenario-driven National Response Framework Integrated Emergency Management courses. Topics address the full range of PIO responsibilities in disaster response. FEMA also provides an extensive PIO position checklist.[14]

Because PIOs are considered part of the incident command staff during crisis response, the National Public Health Information Coalition and the Department of Homeland Security strongly recommend they complete the NIMS core courses, as well as other PIO-specific courses. One study shows that public health PIO job responsibilities are multi-layered assignments and can include:[15]

- Media relations
- Health campaigns
- Internal and external communication
- Emergency preparedness and risk communication knowledge
- Staff supervision
- Web development

Maintain a registry of communication professionals: During a large-scale event, more trained communication professionals may be required as surge staff. This added capacity can be achieved through mutual aid agreements between hospitals, public health agencies, and other organizations.

Others within the agency may also volunteer to be trained. Identify your organization's current staff skill set, especially for those who volunteer at headquarters or are deployed as part of an emergency public health response:

- Reach out regularly to find new volunteers within your organization and add those names to your database.
- Register communicators by specialty areas, types of experience, and level of experience. You should also register their willingness to work in the headquarters, be deployed to a joint information center (JIC), work in evacuation centers, or be sent to remote locations.

- Verify that contact information is current.
- Make sure all of the volunteers' supervisors are willing to lend those staffers during the emergency response.
- Ask people to recommit annually, to ensure the database accurately represents your organization's staff.

The more available responders you have on your list, the more likely your operation can be maintained and ready to meet your organization's demands. Building and maintaining a communicator's list will give you an assessment of the current staff inventory if and when you need it.

Divide your registry according to the types of jobs identified in your organization's crisis communication plan. For example, if your plan indicates that your website or 24-hour phone operations support will come from another organization, there's no need to keep those assignments active on your registry.

It is important to clarify agency policy regarding the positions that non-paid, trained volunteers are permitted to occupy during an emergency. Indicate on the registry who is eligible to serve in supervisory or leadership positions during an emergency response. Establish criteria for management or leadership positions to make this determination.

Determining Staffing Levels

As an initial step in crisis response, your organization will need to make decisions about communication operations. This includes decisions about daily hours of operation, the number of operational days per week, and, at some point, the expected duration of the response. Initially, the nature of the event and its scope and scale will not be well understood. As the crisis unfolds, you will need to reassess your staffing needs. Risk assessment tools can help make these decisions.[16]

Stagger work shifts to ensure continuity in operations and clear situational awareness. An uninformed team may come to the JIC fresh and have little knowledge about the state of events. You don't want your entire communication staff to be replaced at once, or the entire staff will be uninformed. Staggering team rotations—at various times in the operational day—will provide more continuity. For example, 12-hour shifts can be staggered so that some are working 7:00 a.m. to 7:00 p.m., others come in at 4:00 p.m. and work until 4:00 a.m., and still others are arriving at noon and working until midnight.

> *"When I was out there, there was a couple days when I worked 22 hours in a 24-hour day. But . . . you become less effective if you don't get some decent rest."*
>
> *Mayor Dennis Walaker, Fargo, North Dakota*

Leaders also need relief. They often have a hard time disengaging; nevertheless, a well-trained and experienced staff can help leaders feel like they can take necessary breaks. It is the duty of everyone involved to take occasional breaks to help ensure they are functioning at the high level required in an emergency.[10]

The American Red Cross has deployed millions of volunteers domestically and around the world for more than 130 years.[17] They produced the following guidelines for establishing staff schedules during a crisis:

- **Initial phase:**
  - Managers should aim to keep the number of hours that each person works per day under 12, with a limit of 16.
  - Keep deployments to a field location limited to periods of 3 weeks or less.
  - If the emergency is very intense, do not allow personnel to work more than 7–10 days without taking a day off.
- **Maintenance phase:**
  - If the emergency is less intense, managers should normally direct staff to take one 24-hour period off after 7 days of work. They should also be directed to take 2 days off within a 3-week period. Typically, an assignment is for 3 weeks.
  - If someone continues to be physically and mentally fit after a 3-week assignment, managers may extend an assignment for another 3 weeks. With further reassessment, the assignment may again be extended by 3 weeks, so the total maximum assignment time is 9 weeks.
  - If volunteers are deployed far from home, expect that they will return home for a brief stay before redeploying for each of the 3-week assignments.
- **Resolution phase:**[18]
  - Encourage a visit to a mental health counselor before volunteers return home or to their normal jobs.
  - There is potential value in offering a voluntary debriefing to participants, as it can help responders process their deployment experience and transition back to daily routines.
  - Provide support and educational materials to family members of persons deployed to a crisis away from their home.[19]

Assessing Individual Capacity in Public and Media Response

During a crisis, some personnel may develop a superhero mentality and try to accomplish too much. The result may be burnout and mistakes.

A motivated worker who is taking repetitive information calls from the public may manage 30–40 repetitive calls requesting information per hour, if he or she is working from a script and does not have to perform any analysis.[11] However, no one should be expected to do an 8-hour shift of this type of call response. A 6-hour shift with breaks is a reasonable guideline. If calls require reassurance, referral, or recommendation, this time should be reduced.

Reality Check

If the information requires regular updating or substantial script changes, consider the following:

- Don't expect your telephone response workers to master the new information immediately.
- Plan for fewer calls to be managed in a day.

This frontline work is incredibly intense and those responding directly to the public, no matter the job, must be monitored for emotional well-being and given needed support.

Media response needs: Press assistants who triage media calls can usually manage at least twice as many calls as media information officers who provide more in-depth assistance. The work of a press assistant can range from taking a message (not always an easy task) to directing the media representative to an alternate source. The people answering these calls provide your organization's first impression. To keep this flowing smoothly, do the following:

- Make sure you assign enough people to this task.
- Secure enough incoming phone lines. If you don't, your press assistants will likely endure many complaints.
- Create a frequently asked questions (FAQ) fact sheet containing known information that can be given to reporters by fax, Web, and e-mail, when possible.

Ensure that the FAQ and other informational documents are updated by a certain time each day. Notify the media when they can expect to see new or updated documents on the Web. This will reduce the amount of human power needed to get through the emergency operation.

For communicators, a tough day of media calls on a single but complex subject could mean between 40 and 50 calls for one press officer. PIOs have been known to manage 100 calls in a day, although that would be rare. Quantity must be tempered by quality. Someone working with issues and not just providing information won't be able to field as many calls. Someone acting as a spokesperson for the agency, doing interviews, will field even fewer calls.

Spokesperson assignments: If the media interest is intense or enduring, as expected in a crisis, spokesperson work schedules should also be rotated with overlapping shifts. Fatigue creates mistakes and mistakes by spokespersons can become very problematic. If possible, arrange interviews when spokespersons are most fresh, not when they are tired, such as at the end of a shift. Reduce inevitable stress with lots of support from the PIO, such as talking points and debriefs.

Top leaders should provide no more than four TV interviews in a day, along with two or three shorter telephone interviews.[20] That pace cannot be sustained day after day. An organization director or hands-on leader of the response can't afford to do continuous interviews. While providing access to top leaders helps foster the perception of openness and responsiveness, top leaders should be saved for important moments when the public expects to hear from a policymaker or decision maker. If possible, substitute lower-level organization leaders or SMEs for more routine interview requests. Overexposure of the director may lead to accusations of grandstanding or perceived power struggles.

A spokesperson or SME solely working to provide media and public information response can do six or more short on-camera interviews, interspersed with print and radio interviews, each day. The media would love unlimited access to exclusive in-person interviews. Use your staff wisely and save your human resources for when they're really needed.

Emotional Health Issues for Those Responding to a Crisis[21]

According to the American Red Cross, those who respond to a crisis have the potential to become affected by it as they work long, intensive hours, often under poor conditions. In some cases, responders may face physical dangers. For those deployed away from home, personal support systems are left behind. Supervisory styles vary from person to person, and administrative organization and regulations often must change with little warning, adding additional stress.

Many people who willingly respond to a crisis are dedicated individuals who also tend to be perfectionists. As such, they are at risk of pushing themselves too hard and of not being satisfied with what they have accomplished. They often fail to recognize what has been accomplished and seek to do more.

Frustration is common, and one's usual coping mechanism and sense of humor is often stretched beyond its limits. Workers become exhausted and easily angered. The anger of others, such as workers, people directly affected by the event, and media personnel, sometimes becomes difficult to handle and may be experienced as a personal attack on the worker rather than as a normal response to exhaustion and stress. Survivor guilt may also emerge as workers see what others have lost.

Coping

First responders and crisis PIOs need to understand that if the crisis has a strong, negative impact on them, they may be unable to perform their response duties. During a crisis, when many people are experiencing harm and loss, it may be hard to look past the harm to an individual job. It may also be hard to disengage from the crisis, particularly in an era of 24/7/365 connectivity and handheld devices.

Few people have experienced mass death or destruction. One study of stress among World Trade Center responders noted that stress was significantly compounded because "many of the victims recovered were horribly mangled, and in many cases only parts of bodies were recovered."[8] Responders to the 1995 Oklahoma City bombing dealt with child victims, a truly devastating task for even seasoned

professionals. Deployed responders need to understand and appreciate the intensity of these experiences and talk with others about their emotions.[8,22]

Supervisors should encourage employees to openly discuss their needs and the challenges they are facing. Without these candid conversations, it is impossible to address these needs. Employees need to be encouraged to take time and use stress management techniques such as the following:

Personal coping

- **Think RETALE:**
  - **R**ecognize that emotions will be high in this abnormal setting and talk about it.
  - **E**at nutritious food (e.g., fruit versus donuts, peanuts versus chips).
  - **T**ake mental breaks.
  - **A**void lots of caffeine or alcohol.
  - **L**eave when your shift is over.
  - **E**xercise.
- **Individual Approaches for Stress Prevention and Management**[1]
  - Manage your workload:
    - » Set task priority levels with realistic work plans.
    - » Recognize that “not having enough to do” or “waiting” is an expected part of any disaster response.
  - Balance your lifestyle:
    - » Eat nutritious food, stay hydrated, and avoid excessive caffeine, alcohol, and tobacco.
    - » Get adequate sleep and rest, especially on longer assignments.
    - » Get physical exercise.
    - » Maintain contact and connection with primary social supports.
  - Use stress reduction strategies:
    - » Reduce physical tension by using familiar personal strategies (e.g., take deep breaths, do some gentle stretching, meditate, wash your face and hands, and practice progressive relaxation).
    - » Pace yourself between low- and high-stress activities.

  - » Use time off to decompress and "recharge batteries" (e.g., get a good meal, watch TV, exercise, read a novel, listen to music, take a bath, or talk to family).
  - » Talk about emotions and reactions with coworkers during appropriate times.

- **Maintain self-awareness:**
  - Recognize and heed early warning signs for stress reactions.
  - Accept that one may not be able to self-assess problematic stress reactions.
  - Recognize that over-identification with or feeling overwhelmed by victims' and families' grief and trauma may signal a need for support and consultation.
  - Understand the differences between professional helping relationships and friendships to help maintain appropriate roles and boundaries.
  - Examine personal prejudices and cultural stereotypes.
  - Recognize when one's own experience with trauma or one's personal history interferes with effectiveness.
  - Be aware of personal vulnerabilities and emotional reactions, and the importance of team and supervisor support.

Supervisor support

- **Think RIMEREAD:**
  - **R**emind workers about the value of their effort.
  - **I**nsist that scheduled meal breaks be taken.
  - **M**ake nutritious foods and drinks available.
  - **E**xpect high emotions and provide someone with whom workers can talk.
  - **R**espond to even timid requests for relief or reassignment.
  - **E**ncourage exercise and personal grooming time.
  - **A**ccept inoffensive "silliness" that some use to let off steam.
  - **D**espite what they say, insist that workers take time to sleep.
- **For Supervisors: Minimizing Stress During the Crisis**[23,24]
  - Clearly define individual roles and re-evaluate if the situation changes.
  - Institute briefings at each shift change that cover the current status of the work environment, safety procedures, and required safety equipment.

- Partner inexperienced workers with experienced veterans. The buddy system is an effective method to provide support, monitor stress, and reinforce safety procedures. Require outreach personnel to enter the community in pairs.
- Rotate workers from high-stress to lower-stress functions.
- Initiate, encourage, and monitor work breaks, especially when casualties are involved. During lengthy events, implement longer breaks and days off, and curtail weekend work as soon as possible.
- Establish respite areas that visually separate workers from the scene and the public. At longer operations, establish an area where responders can shower, eat, change clothes, and sleep.
- Implement flexible schedules for workers who are directly impacted by an event. This can help workers balance home and job responsibilities.
- Reduce noise as much as possible by providing earplugs, noise mufflers, or telephone headsets.
- Mitigate the effects of extreme temperatures through the use of protective clothing, proper hydration, and frequent breaks.
- Ensure that lighting is sufficient, adjustable, and in good working order.
- Supply facemasks and respirators to lessen the impact of odors and tastes, and protect workers' breathing.
- Provide security for staff at facilities or sites in dangerous areas, including escorts for workers going to and from their vehicles.
- Provide mobile phones for workers in dangerous environments. Ensure that personnel know whom to call when problems arise.

Encouraging Mental Health and Rejuvenation

While managing the anthrax crisis, CDC offered a flexible schedule to their communications staff to help prevent burnout. They created two staffs for their media relations efforts and provided each team with alternating 4 days a week on and 3 days off. This strategy was very successful in helping workers cope and perform at their highest level.

Emotional Health Issues for Families of Deployed Emergency Response Workers

While emergency workers may experience stress directly, their family members may also have challenges. They may have a hard time understanding what their loved ones are experiencing. Family members may be worried when workers have been deployed to disaster sites. They may not have the means to cope with the situation. These strategies will help lessen the stress for family members:[18,19,21,22]

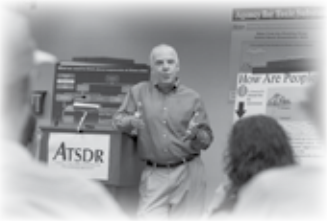
- Provide family members with as much information as possible about the disaster and deployment. Unfortunately, in the beginning of a response, your organization may not yet have complete information on the event. Staff may not know the precise location where they will be working, what exactly they will be doing, or how long they will be away from home. Make efforts to update family members as often as possible. They are a key audience and communication plans should include them.
- As a second possible strategy, assign a specific liaison from your organization to family members.

Family members should understand that deployed staff usually work very long hours in very stressful and emotional conditions. In many cases, they may be exposed to scenes of suffering, possible destruction, and the strong emotions, anger, and loss that victims experience.

When a family member returns from a disaster scene, he or she may need time to adjust to the normal pace of everyday life and may require additional rest before resuming previously normal responsibilities. It is important for family members to be able to talk to one another about what happened and the emotions that accompanied the work. Sometimes, deployed workers do not want to burden family with these stories. They may be proud, frustrated, angry, sad, tearful, and happy all at the same time. It may take some time to sort out these conflicting emotions and share them.

Returning deployed workers may also seem overly preoccupied with the disaster experiences and may not seem to share in excitement, disappointment, or frustration about events at home. The disaster experience tends to overshadow everyday events and puts them in a different perspective.

Often, emergency response workers return home with a conscious or unconscious need to reassure themselves about the safety of their environment.[23] Response workers often feel that they left something undone or that they could have done more. Time, understanding, empathy, and support from family are important to readjustment.



Conclusion

Human resources are critical to the effective management of any crisis event. First responders are generally highly committed and skilled. Ongoing training is critical to ensure that responders are performing at their most effective level. Registries of volunteers can help maintain surge capacity to meet the expanding needs of a crisis. Crises and disasters are stressful events. That stress can take a toll on first responders and their families. Anticipating and managing that stress is important. Without effective management, stress will reduce the effectiveness of the first responder work force and possibly cause responders to be added to the list of those affected by the event.

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CRISIS & EMERGENCY RISK COMMUNICATION
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Chapter 12: Understanding Roles of Federal, State, and Local Community Health Partners

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To help explore the interaction of multiple groups during a disaster, this chapter reviews the roles and relationships of health partner organizations. This chapter is divided into the following topics:

- Community-based approaches to emergencies
- List of international agencies, federal agencies, NGOs, and FBOs
- International agencies
- United States federal agencies
- Organizations that support NGOs and FBOs
- Nongovernmental organizations (NGOs)
- Faith-based organizations (FBOs)

The Many Players and Partnerships in Emergency Response

Understanding the communication roles and responsibilities of the federal government and its counterparts at the state and local levels can be challenging. Various stages of a crisis bring together many players, agencies, organizations, and interagency partnerships. Each one is responsible for different, and not necessarily distinct, components of emergencies.

Some of the key federal government agencies that may be involved[1] include the following:

- Department of Agriculture (USDA)
- Department of Defense (DOD)
- Department of Energy (DOE)
- Department of Health and Human Services (HHS)
- Department of Homeland Security (DHS), including the Federal Emergency Management Agency (FEMA)
- Department of Justice (DOJ)
- Environmental Protection Agency (EPA)
- Federal Bureau of Investigation (FBI)
- Nuclear Regulatory Commission (NRC)

Within each agency, separate programs or departments may handle different areas of a crisis, including the following:

- Planning
- Preparedness
- Training
- On-the-scene assistance
- Consequence management
- Coordination
- Communication

In addition, nongovernmental organizations (NGOs) and faith-based organizations (FBOs) play a critical role in most disaster responses. These agencies and groups often have distinct missions, capabilities, and resources. Each may have a unique "voice" in the crisis and emergency risk communication (CERC) process.

Change is a Core Factor

National, state, and local government administrations change. Threats change. New technologies are developed and deployed. New or re-emerging incidents occur. The way incidents are handled and the reactions to the way they are handled will vary. These and other factors lead to a constantly changing environment of roles and responsibilities:

- Most federal agencies will not be able to deploy assets during the first 48 hours following the onset of an event.[2,3]
- Local, state, and territorial emergency communication managers will be first to respond to an emergency incident until federal assistance can be coordinated and deployed. This happens because they are close to the scene.
- The true "first" responders will be members of the community itself: friends, family, and neighbors.[4]

Existing practice emphasizes the role of local response capacity and the private sector as opposed to over-reliance on national, public assets.

Community-based Approaches to Emergencies

A basic principle of emergency management is that **all disasters are local.**[2,5,6] They happen at a specific place and the place is an important factor in the response. Local resources will be the first deployed to an event. Other important local factors include:

- History
- Traditions
- Values
- Institutions

Most victims of a crisis, for example, are first helped by family, friends, neighbors, coworkers, or even strangers as opposed to professional first responders.[7] Most of the injured or sick will likely be transported to medical facilities by private transportation. Initially, resources for a response, such as bottled water and food, will come from private sector organizations within or near the community. While federal and state resources and support will arrive, they will not be on the scene for at least several hours and possibly much longer. People affected by a disaster should be prepared for a 72-hour delay before federal or state help arrives.

Most government response agencies seek to stabilize the crisis situation so communities can assume responsibilities. Long-term recovery and rebuilding most often become the primary responsibility of local and state stakeholders and partners, with some assistance from federal groups.

The realization of what federal agencies can and cannot do has led to new approaches. One example is community-based disaster preparedness (CBDP), which is increasingly used as a general framework for promoting local-level capacity building.[8]

CBDP seeks to develop the knowledge, resources, and capabilities of local communities. This approach builds on the abilities of NGOs, such as the American Red Cross, Salvation Army, and FBOs, as well as private-sector organizations, local governments, and businesses. CBDP is based on the realization that government agencies alone simply cannot achieve significant, sustainable risk reduction nor can they provide the level of support necessary to respond to major events.[9]

FEMA's Whole Community Framework

FEMA's whole community approach recognizes that FEMA is not the nation's complete emergency management team. Instead, FEMA regards itself as part of a larger team. In order to handle all phases successfully, from preparation through recovery, FEMA works "with the entire emergency management community."[10]

This whole community includes:

- FEMA and other U.S. federal agencies
- State, territorial, tribal, and local governments
- NGOs and businesses
- Individuals, families, and communities, who are the biggest assets in emergency preparedness and response

Another approach to emergencies is community resilience.[11] This approach suggests communities may develop features and resources allowing them to reduce risks, respond more effectively, and recover more quickly.

The National Strategy for Public Health and Medical Preparedness states: "Where local civic leaders, citizens, and families are educated regarding threats and are empowered to mitigate their own risk, where they are practiced in responding to events, where they have social networks to fall back upon, and where they have familiarity with local public health and medical systems, there will be community resilience that will significantly attenuate the requirement for additional assistance."[12]

In a majority of cases, community members, family, friends, coworkers, neighbors, and even strangers will provide initial medical aid. In the case of severe disease outbreaks or epidemics, volunteers can run vaccination clinics, check in on home-bound neighbors and members of the community, and provide support to home-bound patients.

CBDP approaches are diverse because they must be matched to local community conditions. They can be facilitated through a number of activities. These activities should involve the community leaders, institutions, businesses, partners, and stakeholders.

Community Preparedness

Communities, local organizations, and community health partners can do a great deal to enhance preparedness, including developing plans and stockpiling resources such as water, food, and batteries. Significant efforts have been directed toward encouraging preparedness through communication such as the Ready.gov campaign.[13] One of the first steps in building community preparedness is to collect information about risks, resources, and response strategies:

- Inventory of information about risks to the community:
  - Identify the risks a community is most likely to face.
  - Compile information about the geographic location, site-based risks, history of events, and vulnerable populations. All of these may influence CBDP strategies.
  - Use this information to help in developing risk communication strategies.
- Information and data about available community resources:
  - Inventory local resources, capacities, and expertise that might be needed in disaster response.
  - Use this inventory to help identify deficiencies and increase the speed with which community resources can be deployed.
- Strategies for risk reduction:
  - Make long-term plans to reduce risks, such as the following:
    - » Develop flood mitigation strategies.
    - » Build schools a safe distance from industrial sites.
    - » Undertake fire reduction activities.
  - Communicate about risks with stakeholders and partners.

Communities that are connected via networks are more resilient.[11] One of the most important components of community preparedness is building integrated communication networks, both formal and informal. Communities that have well-integrated networks are able to pass information more quickly and with greater efficiency. These networks also can withstand technological disruptions by passing information through alternative means. For example, word of mouth between trusted neighbors can be used to pass information when radio and television broadcasting is disrupted.

Developing networks between community groups, FBOs, NGOs, institutions, and businesses, as well as governmental agencies, can significantly bolster resilience.[14] To help build, integrate, and sustain your community networks, involve these groups in your CERC preparedness activities, including the following:

- Planning activities
- Tabletop exercises and full-scale drills
- After-action debriefs

Japan's Disaster Prevention Day

Japan is known around the world as a leader in disaster preparedness. Every September 1 since 1960, Japan marks the anniversary of the Great Kanto earthquake of 1923 with Disaster Prevention Day.

Like the U.S. and other countries, this helps government agencies and other response partners practice using disaster response plans and communication warning systems such as earthquake early warnings and the tsunami warning service.

Unlike the U.S., the Japanese government involves its citizens and businesses in their nationwide drills. Disaster drills also include evacuation drills at schools. Public and private organizations practice transporting stranded commuters from the office to home.[15] In 2010, the disaster drill contained a scenario in which three massive and simultaneous earthquakes struck a wide area in central Japan, involving 670,000 citizens in Tokyo and 34 prefectures around the country.[16]

Information learned at these drills has resulted in updates to response plans and building codes, and investments in early warning systems. These drills have also created a culture of preparedness and have kept people vigilant in realizing that the next "big one" could come at any time. Although the 2011 earthquake and tsunami resulted in tens of thousands of deaths, the public education program and annual drills most likely helped save many thousands of lives.[17]

While local- and community-based strategies are critical, it's important to understand and plan for national and international organizations to be involved in your response. These could include government agencies, NGOs, or FBOs. They will be among the primary groups you will be coordinating and communicating with during an emergency response.

The environment in which you will be assigning roles and responsibilities while developing a communication plan is constantly changing. The best CERC plans include adaptive strategies and flexibility.[18] Federal, state, county, territory, and city agencies all adapt to changing environments, priorities, and budgets when it comes to CERC planning. While many organizations and agencies provide recommendations, sample plans, training, and assistance, there is no prescribed best way for departments of health to assign roles and responsibilities when generating communication plans. However, there are recommendations and tools that can help facilitate your assignment decisions.

List of International Agencies, Federal Agencies, NBOs, and FBOs

The remainder of this chapter is devoted to providing more details about federal and international roles and responsibilities and related Internet resources you can use for developing CERC plans. Because of changes in the structures and staffing of agencies and organizations, websites are provided, but not detailed contact information. Use the following resources as the basis for preparing communication plans, but supplement these resources by gathering additional contact information and information about state-specific resources.

These agencies include international organizations, U.S. federal agencies, NGOs, and FBOs.

Table 12–1. Response Agencies (not an all-inclusive list)

Agencies	
International Agencies	1. World Health Organization (WHO)
	2. Health Canada (HC)
	3. The Public Health Agency of Canada (PHAC)
	4. European Centre for Prevention and Disease Control (ECDC)
	5. Chinese Center for Disease Control and Prevention (China CDC)

Continued...

Agencies

U.S. Federal Agencies

1. Department of Homeland Security (DHS)
   a. Federal Emergency Management Agency (FEMA)
   b. U.S. Coast Guard
   c. U.S. Customs and Border Protection (CBP)
   d. Transportation Security Administration (TSA)
2. Department of Health and Human Services (HHS)
   a. Agency for Toxic Substances and Disease Registry (ATSDR)
   b. Centers for Disease Control and Prevention (CDC)
3. Central Intelligence Agency (CIA)
4. Department of Agriculture (USDA)
5. Department of Defense (DOD)
6. Department of Energy (DOE)
7. Department of the Interior (DOI)
8. Department of Justice (DOJ)
9. Department of State (DOS)
10. Department of Transportation (DOT)
11. Environmental Protection Agency (EPA)
12. Nuclear Regulatory Commission (NRC)
13. U.S. National Response Team

Organizations that support NGOs and FBOs

1. DHS Center for Faith-Based and Community Initiatives (CFBCI)
2. The Aidmatrix Network

NGOs

1. American Red Cross
2. Center for Biosecurity (University of Pittsburgh Medical Center)
3. Humane Society of the U.S. (HSUS)
4. Johns Hopkins Public Health Preparedness Programs (JHPHPP)
5. National Voluntary Organizations Active in Disasters (NVOAD)
6. The Institute of Medicine's Forum on Medical and Public Health Preparedness for Catastrophic Events

FBOs

1. Catholic Relief Services (CRS)
2. Lutheran World Relief (LWR)
3. Salvation Army
4. United Methodist Committee on Relief (UMCOR)

International Agencies

World Health Organization (WHO) (http://www.who.int/en/)

Two billion people each day may face health threats around the world from disease outbreaks, natural disasters, economic crises, or conflicts. WHO, headquartered in Geneva, Switzerland, is the United Nations (UN) organization that provides international health leadership. WHO has 194 Member States, all countries that have accepted WHO's constitution. WHO and its Member States work on global public health matters with other UN agencies, donors, NGOs, WHO collaborating centers, and various private sector organizations. WHO responds to crises around the world and also brings nations together to tackle international health issues such as eradicating polio and reducing tobacco use.

More than 8,000 experts are part of WHO.[19] These experts include doctors, epidemiologists, scientists, managers, administrators, and other professionals.

These experts work at WHO headquarters, in six regional offices, and in 147 country offices. They carry out a wide range of activities that help countries respond to public health concerns. These activities include the following:

- Creating and maintaining international health guidelines and standards
- Providing resources, expertise, and promotion for health research
- Helping countries build capacity at the national and community level, to do the following:
  - Manage crises of all types
  - Respond to public health concerns rapidly and effectively
  - Mitigate the effects that crises have on public health

WHO tools and resources include the following:

Global Alert and Response (GAR) System (http://www.who.int/csr/en/): WHO's GAR system supports national public health systems and an international system for coordinated response. GAR works to strengthen many national and international public health capacities, including the following:

- Laboratory resources
- Early warning alert and response systems
- Training programs that enhance preparedness and response capabilities for epidemics
- Influenza preparedness and response capacities

- The development of standards for preparing for, and responding to, diseases that have a strong chance of causing epidemics, such as meningitis and plague
- Preparedness, including biosafety and biosecurity, for outbreaks of dangerous or emerging infectious diseases

During a crisis response, public health professionals in GAR's JW Lee Centre for Strategic Health Operations (http://www.who.int/csr/alertresponse/shoc/ en/index.html) work with partners and countries. They coordinate response activities and information among these participants and WHO.

Emergency Risk Management and Humanitarian Action (ERM) (http://www.who.int/ disasters): ERM works with Member States, international partners, and local institutions to save lives and reduce suffering during emergencies, disasters, and crises. ERM's work with these groups covers all phases of an emergency, improving capacity for preparation, response, and recovery. ERM accomplishes this through the following activities:

- ERM cultivates partnerships built on the common goal of emergency management.
- They serve as advocates for disaster preparedness, response, and recovery. In this role, they help disaster response agencies and organizations acquire the political support and resources they need.
- Their experts develop guidance for the health sector. This guidance is based on scientific evidence and applies to all phases of emergency work.
- They work with health systems and countries to enhance their resilience and capacity for managing disasters and mitigating the harm they cause.
- ERM works to ensure that international resources are available to countries for training and building surge capacity. This helps responders become better prepared for major public health events and better able to respond if an event is overwhelming..

International Health Regulations (http://www.who.int/ihr/en/index.html): International Health Regulations apply when countries face a "public health emergency of international concern." These regulations provide a framework for affected nations to coordinate management of these events. For participating countries, these regulations are legally binding. They improve the ability of nations to do the following:

- Detect public health threats
- Assess the significance of public health threats
- Notify other nations who may be affected by a public health threat
- Respond to public health threats

Countries that participate are listed as States Parties to the International Health Regulations.[20] When countries do participate, they have 2 years to accomplish two goals:

- Assessment of national capacity for public health surveillance and response
- Development of national action plans for implementing and meeting the requirements of these regulations

After these two goals are accomplished, participating countries have 3 years to meet specific requirements described by the regulations. These requirements address the following:

- National surveillance and response systems
- Rules regarding designated airports, ports, and certain ground crossings

If needed, participating countries may have their deadlines extended by 2 years. For exceptional circumstances, they may have their deadlines extended by up to an additional 2 years.

Health Canada (HC) (http://www.hc-sc.gc.ca/)

Health Canada (HC) is a department within the Government of Canada. Its mission is to help the people of Canada maintain and improve their health.

Health Canada works with the U.S. through formal and informal channels and agreements.[21] Some examples include the following:

- A memorandum of understanding on aboriginal health between Canada's First Nations and Inuit Health Branch and the U.S. Department of Health and Human Services
- A memorandum of understanding on therapeutic products between Canada's Health Products and Food Branch and the U.S. Food and Drug Administration
- The North American Free Trade Agreement Technical Working Group on Pesticides

HC regularly works with multiple counterpart agencies in the U.S., including the following:

- Department of Health and Human Services
- Department of Homeland Security
- Centers for Disease Control and Prevention
- National Institutes of Health
- Environmental Protection Agency
- Department of Agriculture
- Consumer Product Safety Commission
- Occupational Safety and health Administration
- Drug Enforcement Administration
- Food and Drug Administration

Canada and the U.S. also often collaborate informally. This happens between organizations within each country and also between individuals, such as researchers, in each country.

Issues that involve Canada and the U.S. but do not involve other nations are usually handled directly between counterpart agencies in the two countries; the Canadian and U.S. embassies are usually not directly involved. Issues involving Canada, the U.S., and other countries are usually handled through institutions composed of multiple countries, such as the World Health Organization or the Pan American Health Organization.

Health Canada works with the U.S. Department of Homeland Security and the U.S. Department of Health and Human Services on international public health security, preparedness, and emergency response issues.

For example, Canada, the United States, and Mexico work together under the Trilateral Cooperation—Emergency Preparedness Working Group to strengthen the ability of all three countries to respond to public health events that involve foods, drugs, medical devices, and veterinary products.[22] Canada and the U.S. also work together on issues dealing with border safety and security.

Health Canada's tools and resources include the following:

Public information products (http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/fact-feuille-eng.php): HC provides information about topics and events that are relevant to the health of the people of Canada. These products include the following:

- Public warnings
- Public advisories
- Information updates
- Foreign product alerts

Federal Nuclear Emergency Plan (FNEP) (http://www.hc-sc.gc.ca/hc-ps/ed-ud/fedplan/index-eng.php): HC leads the coordination of Canadian government responses to nuclear or radiological public health events.

Canada-U.S. Joint Radiological Response Plan (http://www.hc-sc.gc.ca/hc-ps/ed-ud/part/int/index-eng.php): Part of HC's lead role in nuclear and radiological events is to work with the U.S. Under this plan, HC would partner with the U.S. in response to confirmed or suspected radiological events that meet one of the following two criteria:

- The event affects both countries.
- The event is so large that assistance from the other partner is necessary.

The Public Health Agency of Canada (PHAC) (http://www.phac-aspc.gc.ca)

PHAC was created in 2004 to strengthen Canada's ability to respond to public health events.

To fulfill their mission to protect public health, PHAC embraces these roles:

- Promoting health
- Preventing and controlling chronic diseases and injuries
- Preventing and controlling infectious diseases
- Preparing for and responding to public health emergencies, such as floods, earthquakes, fires, infectious diseases, and criminal and terrorist acts.
- Serving as a hub for sharing Canadian public health expertise with other countries
- Applying knowledge gained from international research and development to public health programs in Canada
- Enhancing public health collaboration between governments
- Working to facilitate Canadian approaches to policy and planning for public health

PHAC's tools and resources include the following:

Centre for Emergency Preparedness and Response (CEPR) (http://www.phac-aspc.gc.ca/cepr-cmiu/index-eng.php): CEPR serves as a hub for coordinating public health security matters.[23] According to CEPR, the organization has the following responsibilities:

- Develop and maintain national emergency response plans for PHAC and HC
- Monitor outbreaks and global disease events
- Assess public health risks during emergencies
- Contribute to keeping Canada's health and emergency policies in line with threats to public health security and general security for Canadians
- Handle responsibility for federal public health rules governing laboratory safety and security, quarantine, and similar issues
- Function as the Canadian Government health authority on bioterrorism, emergency health services, and emergency response

Global Public Health Information Network (GPHIN) (http://www.phac-aspc.gc.ca/media/nr-rp/2004/2004_gphin-rmispbk-eng.php): GPHIN is a public health early warning system used by public health officials around the world.[24] It provides relevant information, including preliminary reports, about outbreaks and other public health events. GPHIN is secure, accessed through the internet, functions 24/7, delivers content in real time, and operates in multiple languages.

The GPHIN staff accomplishes this mission by monitoring media sources from around the world. This includes news wires and several thousand websites.[25] The GPHIN system automatically filters media reports based on their relevancy to public health. GPHIN officials then analyze the reports that are retained from this filtering process to make sure they are appropriate for GPHIN's mission. Those media reports that are included are assigned one or multiple categories and delivered to users through GPHIN's password-protected website.

Many of these reports are automatically translated into the preferred language of the reader.[24,26] This service allows users to understand the basics of what is being reported in foreign-language publications.

Some reports in GPHIN are about events that have the potential to have significant effect on public health. When GPHIN officials identify reports of this significance, they send out immediate notifications to users.

European Centre for Prevention and Disease Control (ECDC) (http://ecdc.europa.eu/en/)

According to ECDC, its mission is "to identify, assess, and communicate current and emerging threats to human health posed by infectious diseases."[27,28] ECDC uses communication strategies as part of its efforts to enhance Europe's protections against infectious diseases.

ECDC was established in 2005, and maintains its headquarters in Stockholm, Sweden. ECDC works with the health protection agencies of countries throughout Europe. They partner to develop and enhance Europe-wide surveillance and early-warning systems for infectious disease. ECDC brings together experts from throughout Europe, who evaluate and communicate the risks posed by infectious diseases.

The organization works to provide objective and accessible information to the public, including through its website.

ECDC tools and resources include the following:

Health Communication (http://ecdc.europa.eu/en/healthtopics/health_communication/Pages/index.aspx): This site explores ECDC's health communication activities, including its work on the following topics:

- Health literacy
- Health education
- Social marketing
- Risk communication
- Crisis communication
- Health advocacy
- Outbreak communication

Knowledge and Resource Centre on Health Communication (KRC) (http://ecdc.europa.eu/en/activities/health_communication/KRC/Pages/index.aspx): The KRC works to share ECDC's health communication knowledge and resources with health professionals in Europe.

Preparedness and Response Activities (http://ecdc.europa.eu/en/activities/response/Pages/Activities_PreparednessandResponse.aspx): This site describes ECDC's activities helping the European Union prepare for communicable disease outbreaks. These activities focus on pandemic preparedness, bioterrorism response, and general preparedness.

Chinese Center for Disease Control and Prevention (China CDC) (http://www.chinacdc.cn/en/)

The Chinese Center for Disease Control and Prevention (China CDC) is a nonprofit institution that works to protect the health of the people of China. Affiliated with the Chinese Ministry of Health, China CDC carries out this mission through the following activities:

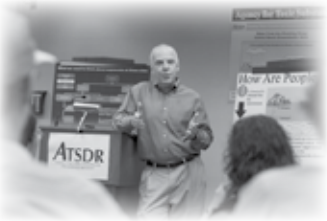
- Enhancing research on strategies and response measures for disease control and prevention
- Enacting disease prevention and control plans
- Managing public health activities for food safety, occupational health, product safety, radiation health, environmental health, and health care for women and children
- Conducting applied scientific research
- Providing technical guidance, staff training, and quality control for public health services
- Functioning as a national working group for the prevention of diseases, emergency relief, and the creation of public health information systems

United States Federal Agencies

Most agency and program descriptions in this section have been taken directly from each agency's website. Public health professionals who will be working with these agencies can help prepare by visiting their websites and further exploring their duties and how they function.

Department of Homeland Security (DHS) (http://www.dhs.gov/index.shtm)

DHS has primary responsibility for the safety and security of the American people. The third largest Cabinet department, DHS was established by the Homeland Security Act of 2002, largely in response to the terrorist attacks on September 11, 2001. The new department consolidated 22 executive branch agencies, including the following:



- FEMA
- Transportation Security Administration
- U.S. Customs and Border Protection
- U.S. Coast Guard
- U.S. Secret Service

The mission of DHS includes the following:

- To prevent and disrupt terrorist attacks
- To protect the American people, its critical infrastructure, and key resources
- To respond to and recover from incidents that do occur

DHS also promotes preparedness and emergency prevention among citizens.[29]

The DHS Office of Emergency Communications (OEC) was created by Congress in 2007 in response to the communication challenges witnessed during Hurricane Katrina in 2005. The mission of the OEC is to support and promote the ability of emergency responders and government officials to continue to communicate in the event of natural disasters, acts of terrorism, or other manmade disasters, and to work to ensure, accelerate, and attain interoperable and operable emergency communications nationwide.[30]

Many DHS tools and resources are provided through a number of agencies that are located under the DHS umbrella. A detailed description of the emergency preparedness and response role of each of these agencies is provided here.

Federal Emergency Management Agency (FEMA) (http://www.fema.gov): FEMA is the federal agency charged with building and supporting the nation's emergency management system. FEMA's mission is to reduce the loss of life and property and protect communities nationwide from all hazards, including natural disasters, acts of terrorism, and other manmade disasters. FEMA leads and supports the nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation.

FEMA tools and resources include the following:

National Response Framework (NRF) (http://www.fema.gov/emergency/nrf/): This framework presents the guiding principles for all response partners to prepare for and provide a unified national response to disasters and emergencies. It applies for all disasters and emergencies, from the smallest incident to the largest catastrophe. It establishes a comprehensive, national, all-hazards approach to domestic incident response.

NRF, the Emergency Support Function (ESF) Annex #8 (http://www.fema.gov/pdf/emergency/nrf/nrf-esf-08.pdf): For this component of NRF, FEMA works with HHS, the lead agency for ESF #8. This is the public health and medical services component. It provides the mechanism for coordinated federal assistance to supplement state, tribal, and local resources in response to the following:

- A public health and/or medical disaster
- A potential or actual incident requiring a coordinated federal response
- A developing potential health or medical emergency

NRF, Public Affairs Support Annex (http://www.fema.gov/pdf/emergency/nrf/nrf-support-pa.pdf): According to FEMA, "This Public Affairs Support Annex describes the interagency policies and procedures used to rapidly mobilize federal assets to prepare and deliver coordinated and sustained messages to the public in response to incidents requiring a coordinated federal response."

Excerpt from the NRF Public Affairs Support Annex

During an incident, federal, state, tribal, and local authorities share responsibility for communicating information regarding the incident to the public. These actions are a critical component of incident management and must be fully integrated with all other operational actions to ensure the following objectives are met:

- Delivery of incident preparedness, health, response, and recovery instructions to those directly affected by the incident
- Dissemination of incident information to the public, including special needs populations

The Joint Information Center (JIC) structure provides a supporting mechanism to develop, coordinate, and deliver messages. It supports the Incident Commander or Unified Command and the associated elements of the Incident Command System.

A federal core group develops, coordinates, and delivers information and instructions to the public related to:

- Federal assistance to the incident-affected area
- Federal departmental/agency response
- National preparations
- Protective measures
- Impact on nonaffected areas
- Federal law enforcement activities

Assignments to this core group are determined by the DHS Office of Public Affairs (OPA) in accordance with jurisdictional and statutory responsibilities, operational tasks, areas of expertise and responsibility, and the nature and location of the incident.

NRF, Incident Annexes (http://www.fema.gov/emergency/nrf/incidentannexes.htm): The Incident Annexes describe the concept of operations to address specific contingency or hazard situations. They also address elements of an incident requiring specialized application of the framework. Incident annexes include the following types of incidents:

- Biological
- Catastrophic
- Food or agricultural
- Mass evacuation
- Nuclear or radiological
- Terrorism

National Preparedness Directorate (NPD) (http://training.fema.gov/): NPD's online course catalog provides searchable, integrated information about courses provided or managed by FEMA's Center for Domestic Preparedness, the Emergency Management Institute, and the National Training and Education Division.

U.S. Coast Guard (http://www.uscg.mil/default.asp): The U.S. Coast Guard responds to maritime emergencies. They also may assist state and local officials in dealing with chemical incidents, particularly oil and hazardous materials spills.

U.S. Customs and Border Protection (CBP) (http://www.cbp.gov/): CBP is one of DHS' largest and most complex components, with a priority mission of keeping terrorists and their weapons out of the U.S. It also has a responsibility for securing and facilitating trade and travel, while enforcing hundreds of U.S. regulations, including immigration and drug laws.

Transportation Security Administration (TSA) (http://www.tsa.gov): TSA protects U.S. transportation systems to ensure freedom of movement for people and commerce. Duties include strengthening security systems at airports and coordinating transportation matters for the federal government in the event of a future terrorist incident.

Department of Health and Human Services (HHS) (http://www.hhs.gov)

HHS is the U.S. government's principal agency for protecting the health of all Americans. The operating divisions within HHS perform a wide variety of tasks including research, public health, food and drug safety, and emergency preparedness and response. HHS is the primary agency for coordinating health, medical, and health-related social services under the national response framework.

HHS provides the following tools and resources:

Office of the Assistant Secretary for Preparedness and Response (ASPR) (http://www.phe.gov/about/pages/default.aspx): This office was formerly known as the Office of Public Health Emergency Preparedness. ASPR was created under the Pandemic and All Hazards Preparedness Act in the wake of Hurricane Katrina. ASPR leads the nation in preventing, preparing for, and responding to the adverse health effects of public health emergencies and disasters.

ASPR is focused on the following:

- Preparedness planning and response
- Building federal emergency medical operational capabilities
- Countermeasures research, advance development, and procurement
- Grants to strengthen the capabilities of hospitals and health-care systems in public health emergencies or medical disasters.

The office provides federal support, including medical professionals, through ASPR's National Disaster Medical System, to augment state and local capabilities during an emergency or disaster. Although ESF #8 is part of DHS' National Response Framework, HHS is the lead agency for ESF #8 under the Pandemic and All Hazards Preparedness Act.[31] The Secretary of Health and Human Services delegates to ASPR the leadership role for all health and medical services support functions in a health emergency or public health event.

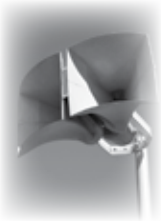
HHS National Disaster Medical System (NDMS) (http://www.phe.gov/preparedness/responders/ndms/Pages/default.aspx): NDMS is a federally coordinated system that augments the nation's emergency medical response capability. The overall purpose of NDMS includes the following:

- To supplement an integrated national medical response capability for assisting state and local authorities in dealing with the medical impacts of major peacetime disasters
- To provide support to the military and the Department of Veterans Affairs medical systems in caring for casualties evacuated back to the U.S. from overseas armed conventional conflicts

ASPR Response Playbooks (http://www.phe.gov/Preparedness/planning/playbooks/Pages/default.aspx): These playbooks provide strategic guidance for ESF #8 responses. They outline key options and recommended actions to support the HHS Secretary (or designee) in directing and coordinating the response to disasters and public health emergencies.

They are written at a strategic level to highlight key decision points, actions, capabilities, and assets that may be required to support an incident response. The playbooks contain a concept of operations that outlines the phases of the response and identifies specific action steps for each phase. All federal ESF #8 partners are included in identifying how the synchronized federal capabilities might be used to support a state response. The playbooks' primary focus is the following:

- To enhance preparedness for response
- To enhance the transition to recovery, including the following:
  - Alert
  - Activation
  - Deployment
  - Deactivation and demobilization of federal ESF #8 resources



Agency for Toxic Substances and Disease Registry (ATSDR) (http://www.atsdr.cdc.gov/): ATSDR is an agency of the U.S. HHS. It serves the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and diseases related to toxic substances.

ATSDR is directed by congressional mandate to perform specific functions concerning the public health effects of hazardous substances in the environment. These functions include the following:

- Public health assessments of waste sites
- Health consultations concerning specific hazardous substances
- Health surveillance and registries
- Response to emergency releases of hazardous substances
- Applied research in support of public health assessments
- Information development and dissemination
- Education and training concerning hazardous substances

Centers for Disease Control and Prevention (CDC) (http://www.cdc.gov): CDC is recognized as the primary federal agency for protecting the health and safety of people, at home and abroad. It provides credible information to enhance health decisions and promote health through strong partnerships. CDC activities include the following:

- Disease prevention and control
- Environmental health
- Health promotion and education

In addition, CDC serves as the national focal point for improving the health of Americans and supporting specific global health efforts, such as aid to Haiti following the earthquake in 2010, assistance to Japan following the tsunami in 2011, and global support for the eradication of polio.

CDC Tools and Resources include the following:

CDC Public Health Emergency Preparedness and Response website (http://emergency.cdc.gov/): This is an Internet resource that provides information addressing the following:

- Public health emergencies
- Training for specific emergencies and for public health officials
- CDC contact information for emergencies
- Other important information dealing with the public health aspects of emergency preparedness and response

Funding, Guidance, and Technical Assistance to States, Localities, and Territories (http://www.cdc.gov/phpr/coopagreement.htm): All response to public health emergencies begins at the local level. Shortly after the terrorist attacks on September 11, 2001, and the subsequent anthrax attacks, Congress appropriated funding to CDC to support preparedness for emergencies at public health departments nationwide.

CDC plays a pivotal role in ensuring that state and local public health systems are prepared. This is based on CDC's unique ability to respond to infectious, occupational, or environmental incidents that affect the public's health.

CDC's Office of Public Health Preparedness and Response, Division of State and Local Readiness, administers this funding through the Public Health Emergency Preparedness (PHEP) cooperative agreement. Through the PHEP agreement, CDC helps public health departments strengthen their abilities to respond to all types of public health incidents and build more resilient communities.

The CDC Interim Recommended Notification Procedures for Local and State Public Health Department Leaders in the Event of a Bioterrorist Incident Public Health Emergency Preparedness and Response (http://emergency.cdc.gov/eMContact/Protocols.asp): This is a Web resource that provides a flowchart of recommended notification procedures. It begins with a local health official either learning of or suspecting a bioterrorist threat or incident.

Central Intelligence Agency (CIA) (http://www.cia.gov)

CIA provides evidence-based foreign intelligence related to national security, including information about the potential terrorist use of chemical, biological, radiological, and nuclear agents.

Department of Agriculture (USDA) (http://www.usda.gov)

USDA has the primary responsibility for protecting the safety of the nation's food supply. The agency has an overall biosecurity system designed to prevent the harmful introduction of plant and animal pathogens into America's system of agriculture and food production. This system includes resources and response mechanisms in case an emergency should occur. USDA also closely coordinates with the states, industry, law enforcement, and such other federal agencies as the Food and Drug Administration (FDA), CDC, and the U.S. Customs Service on biosecurity issues.

Department of Defense (DOD) (http://www.dod.gov)

The armed service branches of DOD, including the Army, Air Force, Marines, Navy, and the National Guard, continue to be the frontline military defense against terrorist threats. The National Guard has a central role in many crises and is especially active in natural disaster events.

Defense Threat Reduction Agency (http://www.dtra.mil): This DOD agency focuses specifically on safeguarding the U.S. from weapons of mass destruction (WMDs) by reducing the present threat and preparing for future threats. WMDs include chemical, biological, radiological, nuclear, and high-explosive weapons.

U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) (http://www.usamriid.army.mil): USAMRIID's mission is to develop medical defenses against biological warfare threats. Since its inception, USAMRIID has played a key role as the DOD's lead laboratory for medical aspects of biological defense.

USAMRIID develops vaccines, drugs, diagnostics, and information to protect U.S. service members from biological warfare threats and endemic diseases. It is the only laboratory within DOD that has the capability to study highly hazardous viruses requiring maximum containment at biosafety level 4 (the highest level of biosafety). While USAMRIID's primary mission is to protect the military service member, its research has applications that benefit society as a whole.

USAMRIID Education and Training (http://www.usamriid.army.mil/education/index.cfm): USAMRIID offers specialized training for military and civilian medical and public health professionals to enhance their capability to diagnose and treat casualties of biological warfare or terrorism.

Department of Energy (DOE) (http://www.energy.gov)

The mission of DOE is to ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions.

National Nuclear Safety Administration (NNSA) (http://www.nnsa.energy.gov/): NNSA is a separately organized agency within DOE responsible for the management and security of the following:

- U.S. nuclear weapons
- Nuclear nonproliferation
- Naval reactor programs

It also responds to nuclear and radiological emergencies in the U.S. and abroad. Additionally, NNSA federal agents provide safe and secure transportation of nuclear weapons, nuclear weapon components, and special nuclear materials. They also participate in other missions that support national security.

Pacific Northwest National Laboratory's National Security Directorate (NSD) (http://www.pnl.gov/nationalsecurity/): NSD is the steward of the Pacific Northwest National Laboratory's assets

to help "prevent and counter acts of terrorism and the proliferation of weapons of mass destruction." NSD works with DOE, NNSA, and DHS. NSD provides tools and technologies that do the following:

- Support the detection of weapons of mass destruction
- Help the U.S. manage its nonproliferation treaties
- Help secure the nation's borders

Department of the Interior (DOI) (http://www.doi.gov)

DOI protects America's natural resources and heritage, honors America's cultures and tribal communities, and supplies the energy to power America's future.

Office of Emergency Management (http://www.doi.gov/emergency/index.html): DOI's Office of Emergency Management establishes and disseminates policy, and coordinates the development of bureau and office programs, for an integrated and comprehensive program. These programs span the continuum of prevention, planning, response, and recovery. The program encompasses many hazards and emergencies, including the following:

- Those that affect federal lands, facilities, infrastructure, and resources
- Those that affect tribal lands and insular areas
- Those that affect the ability of DOI to execute essential functions
- Those who provide assistance to other units of government under federal laws, executive orders, interagency emergency response plans such as NRF, and other agreements

Natural Resource Damage Assessment and Restoration (NRDAR) Program (http://restoration.doi.gov): NRDAR's mission is to restore natural resources injured as a result of oil spills or other hazardous substance releases into the environment.

In partnership with affected state, tribal, and federal trustee agencies, the NRDAR program conducts damage assessments. A damage assessment is the first step toward resource restoration. It is used to determine restoration needs regarding the public's loss and use of natural resources.

The responsibility of NRDAR is to assess and restore natural resources injured specifically by oil spills or hazardous substance release. Government programs that restore natural resources damaged by fires, floods, or other natural disasters do exist, but they exist separately from NRDAR. However, NRDAR may get involved if an oil spill or hazardous material released during a natural disaster is the result of negligence.

Department of Justice (DOJ) (http://www.justice.gov)

DOJ's role in emergency preparedness and response is to ensure public safety against all threats foreign and domestic.

Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) (http://www.atf.gov/): ATF is a law enforcement agency in the U.S. ATF protects communities from the following:

- Violent criminals
- Criminal organizations
- Illegal use and trafficking of firearms
- Illegal use and storage of explosives
- Acts of arson and bombings
- Acts of terrorism
- Illegal diversion of alcohol and tobacco products

ATF national response teams are typically able to respond within 24 hours of an incident.

Federal Bureau of Investigation (FBI) (http://www.fbi.gov): The FBI serves as the lead agency for preventing acts of terrorism in the U.S. The FBI website includes descriptions of major ongoing investigations as well as specific reports on terrorism.

National Security Branch (NSB) (http://www.fbi.gov/about-us/nsb): FBI's NSB was created in September 2005 in response to a presidential directive. NSB combines the missions and resources of FBI counterterrorism, counterintelligence, WMDs, and intelligence elements under the leadership of a senior FBI official. It also includes the Terrorist Screening Center, which plays a crucial role in providing actionable intelligence to state and local law enforcement.

Department of State (http://www.state.gov)

The State Department protects and assists U.S. citizens living or traveling abroad, including those who are in areas experiencing disasters, emergencies, and crises. It also keeps the public informed about U.S. foreign policy and relations with other countries.

Office of the Coordinator of Counterterrorism (S/CT) (http://www.state.gov/s/ct): S/CT coordinates the following U.S. government efforts:

- Improving counterterrorism cooperation with foreign governments, non-state actors, and multilateral organizations
- Coordinating responses to major international terrorist incidents in progress
- Developing, coordinating, and implementing U.S. counterterrorism policy

Department of Transportation (DOT) (http://www.dot.gov)

The mission of DOT is to serve the U.S. by ensuring a fast, safe, efficient, accessible, and convenient transportation system that meets vital national interests and enhances the quality of life of the American people, today and into the future. Within DOT, the Federal Aviation Administration and the Federal Railroad Administration have preparedness and emergency response responsibilities.

Federal Aviation Administration's (FAA) (http://www.faa.gov): FAA's Office of Security and Hazardous Materials protects FAA employees and facilities from criminal and terrorist acts.

Federal Railroad Administration's (FRA) (http://www.fra.dot.gov) (http://www.fra.dot.gov/rrs/pages/fp_3.shtml): FRA's Office of Railroad Safety focuses on railroad safety and emergency preparedness.

Environmental Protection Agency (EPA) (http://www.epa.gov)

The mission of EPA is to protect human health and the environment.

Emergency Preparation and Response Programs (http://www.epa.gov/gateway/learn/emergencies.html): These programs help prepare for and respond to the effects that natural disasters and weather emergencies can have on the environment. These effects can be both direct and indirect, and can have a significant impact on public health. Dangers they address include the following:

- Food and drinking water contamination
- Mold and wastewater in homes
- Debris

EPA's emergency management activities and regulations also help protect the environment and human health from releases or discharges of oil, chemicals, or other hazardous substances.

National Response System (NRS) (http://www.epa.gov/emergencies/content/nrs/index.htm): NRS routinely and effectively responds to a wide range of oil and hazardous substance releases. NRS is a multilayered system of individuals and teams from local, state, and federal agencies; industry; and other organizations that share expertise and resources. NRS ensures that oil spill control and cleanup activities are timely and efficient, and minimize threats to human health and the environment.

At the heart of the system is the National Contingency Plan (NCP). It ensures that the resources and expertise of the federal government are immediately available for oil or hazardous substance releases that are beyond local and state responder capabilities. NCP provides the framework for NRS and establishes how it works.

Nuclear Regulatory Commission (NRC) (http://www.nrc.gov)

The U.S. Nuclear Regulatory Commission (NRC) was created as an independent agency by Congress in 1974 to ensure the safe use of radioactive materials for beneficial civilian purposes while protecting people and the environment. The NRC regulates commercial nuclear power plants and other uses of nuclear materials, such as in nuclear medicine, through licensing, inspection and enforcement of its requirements.

Office of Nuclear Security and Incident Response (NSIR) (http://www.nrc.gov/security.html) (http://www.nrc.gov/about-nrc/emerg-preparedness.html): NRC's NSIR develops overall agency policy and provides management direction for evaluation and assessment of technical issues involving security at nuclear facilities. It is the agency that safeguards security and interfaces with DHS, the intelligence and law enforcement communities, DOE, and other agencies.

NSIR develops emergency preparedness policies, regulations, programs, and guidelines for both currently licensed nuclear reactors and potential new nuclear reactors. NSIR also provides technical expertise regarding emergency preparedness issues and interpretations, conducts and directs the NRC program for response to incidents, and is NRC's emergency preparedness and incident response interface with the DHS, FEMA, and other federal agencies.

U.S. National Response Team (NRT) (http://www.nrt.org/)

The NRT consists of 15 federal agencies with responsibilities, interests, and expertise in various aspects of emergency preparedness and response to oil and hazardous substance pollution incidents.

Organizations that Support NGOs and FBOs

During a natural disaster or public health emergency, it is imperative that government, nongovernmental, and faith-based organizations work together to support Americans in need. In 2009, the Obama Administration created the White House Office of Faith-Based and Neighborhood Partnerships in an effort to develop and coordinate these partnerships.

The White House Office manages the initiatives of the 12 Federal Centers of Faith-based and Neighborhood Partnerships. In turn, each center works to establish its own partnerships with faith-based and nongovernmental organizations. For instance, during a natural disaster or public health emergency, the Department of Homeland Security (DHS) pairs DHS services with the needs of community-based organizations.

DHS Center for Faith-Based and Community Initiatives (CFBCI) (http://www.dhs.gov/xabout/structure/editorial_0829.shtm): CFBCI, a part of DHS, seeks to build a strong network

among faith-based and community organizations involved in responses to disasters or public health emergencies. Working with partners at the local, federal, and state level, CFBCI supports DHS' objective of maintaining risk management among faith-based and community organizations.

The center's strategic activities include the following:

- It develops policy and protocols for the engagement of FBCOs in DHS initiatives.
- The center develops and coordinates department outreach efforts to disseminate information more effectively. This information goes to FBCOs with respect to programs, contracting opportunities, and other agency initiatives.
- It provides opportunities for unaffiliated FBCOs to formally engage in emergency preparedness, response, and recovery activities. This is accomplished by building strategic relationships with voluntary organizations active in disasters and with state and local emergency management professionals.
- The center cosponsors joint training efforts with DHS and other local, state, and federal government entities. This helps to build the capacity of FBCOs to engage in department-related efforts.

Aidmatrix Network (http://www.aidmatrixnetwork.org/fema/): Aidmatrix is a system that provides an easy way for companies or people to offer help through a Web-based portal. Through this portal, FEMA, the Aidmatrix Foundation, and businesses work together to provide programs for development, disaster aid, hunger, medical needs, education, and more. The network helps nonprofit organizations access the following:

- Financial support
- Product donations
- The skills and time of volunteers

Nongovernmental Organizations (NGOs)

This section lists a few of the many NGOs that are active in emergency and disaster response.

American Red Cross (http://www.redcross.org)

Founded in 1881, the American Red Cross provides aid, such as shelter, food, and mental health services, to victims impacted by devastating natural disasters. The organization also works to help individuals prevent, plan for, and respond to emergencies. Although chartered by Congress to perform its disaster preparedness and relief mission, the American Red Cross is not a government agency.

The American Red Cross also provides the following services:

- Community services for those in need

- Support for military personnel and their families
    - Collection, testing, and distribution of blood for medical use
    - Health and safety education programs
    - International relief

Center for Biosecurity (University of Pittsburgh Medical Center) (http://www.upmc-biosecurity.org)

The Center for Biosecurity was founded in 1998 and became a part of the University of Pittsburgh Medical Center in 2003. The Center is an independent, nonprofit organization that seeks to strengthen the security of the nation. They work to identify risks associated with potential biological attacks, epidemics, and other events.

Humane Society of the U.S. (HSUS) National Disaster Animal Response Team (DART) (http://www.humanesociety.org/issues/animal_rescue/ndart/ndart.html)

The National Disaster Animal Response Team is a part of HSUS, the largest animal protection organization in the U.S. DART provides extensive training on animal disaster response and helps pet owners develop disaster plans for their animals.

Johns Hopkins Public Health Preparedness Programs (JHPHPP) (http://www.jhsph.edu/preparedness/about)

The Johns Hopkins Public Health Preparedness Programs (JHPHPP) are part of an overall strategy aimed at helping communities across the country plan for, respond to, and recover from natural disasters and public health emergencies. The two centers within the programs are part of a two-sided approach to preparing public health systems for disaster response. One side of their approach focuses on enhancing the ability of public health agencies to prepare for and respond to disasters. The other side focuses on research activities to increase the capabilities of those within the public health emergency preparedness system to respond while in an emergency.

National Voluntary Organizations Active in Disaster (National VOAD) (http://www.nvoad.org/)

National VOAD was founded in 1970 following Hurricane Camille in 1969. National VOAD brings together disaster response organizations who share information and resources during the course of a disaster cycle to support victims and their respective communities. National VOAD serves as the main point of contact for voluntary organizations that are a part of the National Response Coordination Center, located at FEMA headquarters. It is also a signatory to the National Response Plan.

The Institute of Medicine's Forum on Medical and Public Health Preparedness for Catastrophic Events (http://iom.edu/Activities/PublicHealth/MedPrep.aspx)

The Forum on Medical and Public Health Preparedness for Catastrophic Events encourages discussion among public and private stakeholders who seek to develop and enhance medical and public health preparedness across the nation. It provides a neutral environment for stakeholders to share and address issues of mutual interest and concern.

Faith-based Organizations (FBOs)

This section lists some of the many FBOs that are active in emergency response.

> *"It's very hard for the government to hire a contractor to do the types of the things, to create what I would call 'whole-of-community response' that the faith-based community can do."*
>
> *RADM Thad Allen, Retired,*
> *Former Commandant,*
> *United States Coast Guard*

Catholic Relief Services (CRS) (http://crs.org/emergency/)

For 60 years, CRS has been delivering humanitarian assistance across the globe with an emphasis on emergency preparedness and response. CRS works directly with communities and local partners to ensure that the needs of those impacted by disasters are met in a timely manner.

Lutheran World Relief (LWR) (http://lwr.org)

LWR provides life-saving relief and support to people affected by disasters such as earthquakes, tornadoes and droughts. LWR partners with local communities to help restore the lives of those in need.

The Salvation Army (http://www.salvationarmyusa.org)

The Salvation Army was established in 1865 and offers relief services and programs to communities affected by natural disasters and other emergencies. The organization seeks to meet the basic needs of both survivors and first responders who are impacted by a disaster.

United Methodist Committee on Relief (UMCOR) (http://new.gbgm-umc.org/umcor/work/emergencies/)

UMCOR is a nonprofit organization dedicated to helping those in need around the world. It provides response support when a community's ability to recover on its own is hindered. UMCOR provides disaster response training and essential supplies. The organization also assists with the long-term building efforts of communities in need.

Conclusion

All disasters are local. People must first rely on local community resources. Well-integrated local communication networks are critical to creating resilient communities. A variety of response agencies will likely be involved in any disasters or crises as communicators and response partners. The variety of agencies and NGOs can be overwhelming and confusing. However, each brings unique resources and a distinct voice to the response. Including these organizations in your CERC plan is one important key to a successful response.

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CRISIS EMERGENCY RISK COMMUNICATION
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Chapter 13: Media and Public Health Law

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The following chapter describes some of the most relevant laws and legal issues that relate to crisis and emergency risk communication (CERC) during public health emergencies, including:

- Freedom of speech and the press
- Laws of defamation
- Copyright law
- The public's right to know
- Freedom of Information Act
- Health Insurance Portability and Accountability Act privacy regulations
- Public health laws
- Public health powers and liabilities
- State public health emergency powers

Understanding the Legal Environment

During public health emergencies, it is essential for CERC communicators to be aware of the law and comply with it. A multitude of legal requirements may apply to CERC activities, including laws addressing access to information, privacy, and public health powers.

If you understand the content of relevant laws and how to apply them, you will be better able to make good communication decisions. You will be more skilled at determining what information can and cannot, and should and should not, be shared with the media and the public. You will also have a better understanding of the legal basis for decisions your organization may make—decisions you may have to explain to the public.

Freedom of Speech and the Press

The United States Constitution grants strong protections for freedom of speech and the press. The First Amendment states: "Congress shall make no law … abridging the freedom of speech, or of the press ..."[1]

Freedom of speech and freedom of the press have been recognized as fundamental rights, but they are not absolute. Laws can constitutionally limit speech and press activities if they meet a compelling state interest and are narrowly tailored to achieve that interest. There is no right to break the law to obtain or disseminate news.

Espionage Law and the News Media

The Espionage Act of 1917 has been used to prosecute people who pass military secrets to other countries. In 1985, the act was used for the first time to prosecute and convict a government employee for disclosing information to the news media, rather than to agents of a foreign government.[2,3] The conviction was upheld on appeal. The Act is still being used in cases where government employees divulged classified information to the media or to others who are not authorized for classified information. In 2010, a government contract employee was indicted for releasing national defense information to a reporter[4] and, in the same year, charges were brought against several individuals in relation to the WikiLeaks scandal.[5] These developments could be seen as a warning to those who may be tempted to leak classified information to reporters, no matter their motives.

Laws of Defamation

Knowledge of defamation law is important for those involved in any kind of public communication.[6] Any communicator who feels compelled to report, in tangible form or in a broadcast, that an identifiable person or business may be involved in illegal, unethical, immoral, or dishonest activity risks being sued for defamation.[7]

Defamation

Defamation is communication that does the following:

- Exposes an individual (or organization) to hatred or contempt
- Lowers an individual in the esteem of others
- Causes an individual to be shunned
- Injures an individual in his business

Defamation has two forms:

- **Slander:** This is spoken defamatory communication in the presence of others. Slander is not published or broadcast.
- **Libel:** This is published or broadcast defamatory communication.

The following conditions must be met before a statement is held legally libelous:

- **Publication:** The defamatory statement must be published or broadcast.
- **Identification:** The communication must identify a person, persons, or entity by name or obvious suggestion.

Continued...

- **Fault:** The plaintiff has to prove that the defendant was negligent or reckless (i.e., that the defendant was at fault).
- **Falsity:** The statement must be false. True statements cannot be considered libel. In addition, the lie must be stated as fact.
- **Injury:** The defamatory statement has to have potential to cause injury. Injury is often assumed to have occurred if the statement insinuated a crime, a loathsome disease, immorality, or caused harm to one's business or job performance.

Although any form of defamation is serious, libel is considered more serious than slander because libel is:

- **Intentional:** Libel is more intentional than slander because the forethought involved in writing and editing precedes the deliberate act of publishing or broadcasting.
- **Widespread:** Libel is more widespread than slander because it reaches a much larger audience through publication or broadcast.
- **Permanent:** Libel is more permanent than slander because printed publications, broadcast audio recordings, and broadcast video recordings remain in existence, unlike the spontaneously spoken word.

The common law permits victims of harmful words to sue their detractors and recover sums of money for their loss of reputation. However, the First Amendment protects the media against libel actions brought by public officials, even when the official has been the victim of a lie.

Officials cannot recover damages unless they can prove that the publisher knowingly published a lie or showed reckless disregard for the truth.[8] Private individuals may have difficulty recovering damages for libel if the information revealed about them is a matter of public concern, a situation likely to be the case during public health emergencies.

Retractions

One possible way to resolve an allegation of defamation is to publish a retraction. Laws vary by state, but in many states retractions are a partial defense, provided the retraction appears with the same prominence as the original. Some states have time limits for requesting and printing retractions. Other states allow media outlets to run retractions to avoid paying certain damages.

Defamation and the Internet

The development of the Internet, social media, and other technological advances expands the ability to rapidly disseminate information online. The rapid spread of rumors and uncertain information could lead to defamation allegations. While there is little precedent in this context, online statements could constitute defamation. One court found that Internet service providers could not be held liable for defamation based on posts hosted on the server.[9]

Defamation in Emergency Response

During emergency responses, anyone communicating information or reporting on events should use caution to avoid engaging in defamation. For instance, statements warning the public about a specific individual spreading an infectious disease or a business location that has been contaminated by toxic substances could give rise to libel allegations. However, so long as the information revealed is a matter of public concern, there will be a strong case against liability for libel. If feasible, anyone communicating information that could give rise to a defamation claim should consult with an attorney before releasing the information.

Copyright Law

Copyright allows a writer, composer, artist, or photographer to own, control, and profit from the production of his or her work. Copyrighted material may not be republished without the copyright owner's permission. Often, you must pay to use the copyrighted work. Copyright law does not apply to the following:

- Facts
- Events
- Ideas
- Plans
- Methods
- Systems
- Blank forms
- Titles

The fact that copyrighted materials are located online does not allow use of those materials without the author's permission. Online materials retain their copyright protection. Users should assume that materials found online through the Internet or other online services are copyrighted unless they are clearly works of the U.S. government or otherwise noted to be in the public domain.

Works created by federal employees as part of their employment are considered works of the U.S. government.[6,10] Copyright protection is not available for these works in the U.S. The U.S. government may receive and hold copyrights transferred to it by assignment, bequest, or otherwise.

Copyright Limitations: Fair Use

In general, the owner of the copyright has exclusive rights to the copyrighted work. However, the act permits "fair use" for certain purposes such as teaching, scholarship, or research. Fair use permits one author, composer, or artist to borrow limited amounts of material from another without seeking permission.

Consider the following factors to determine what constitutes fair use:[11]

- The purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes
- The amount and substantiality of the portion used in relation to the copyrighted work as a whole
- The effect of the use upon the potential market for or value of the copyrighted work
- The nature of the copyrighted work, including whether the work is creative or factual

Examples of fair use by the government include the following:

- Photocopying where copies are distributed to a discrete and limited audience within the government, as opposed to copies that are sold or distributed broadly outside the government
- Copying that is done spontaneously for the purpose of facilitating an immediate and discrete objective, as opposed to the systematic archival copying of extensive materials for possible future use

The Public's Right to Know

When releasing information, elected officials and civil servants must weigh the public's right to know against the need for national security and individual privacy. Citizens expect government officials to be transparent and accountable in their decisions. This is often referred to as a "right to know" about the government activities.

The public's right to know generally is not recognized as a legal concept supported by the Constitution or an Act of Congress. Instead, it is a concept designed to promote trust and support of the government from those it governs.

Emergency Planning and Community Right-to-Know Act[12]

This is one example where the public does have a legal right to know. This act imposes the following:

- Legally mandated reporting standards on facilities involved with hazardous chemicals.
- Emergency preparedness requirements on state, local, and tribal governments to plan for emergencies caused by the release of hazardous chemicals.

The public has the ability to access information regarding hazardous materials in their communities and the emergency planning that is in place should any spill or misuse occur. Similar reporting requirements exist in the Clean Air Act[13] and Oil Pollution Act.[14]

Keeping certain sensitive information secret is of utmost importance to the defense and operation of our government. The "need to know" concept is used to keep sensitive information in the hands of those whose duties require its use and away from potential U.S. enemies.[6]

Finding the balance between what the public has a right to know and what is in the best interest of national security can be difficult during an emergency. CDC has guidelines in place to help with these difficult decisions.

CDC will make available timely and accurate information—through proactive news releases or in response to specific requests—so that the public, Congress, and the news media may assess and understand its scientifically-based health information and programs. CDC uses the following principles:

- Final reports, information, and recommendations will be made fully and readily available.
- Communication will be open, honest, and based on sound science, conveying accurate information.
- Information will not be withheld solely to protect CDC or the government from criticism or embarrassment.
- Information will be released consistent with the Freedom of Information Act (FOIA).[15]
- Prevention messages will be based on supportable scientific data and sound behavioral and communication research principles. At all times, health messages will remain scientifically valid and accurate.

- CDC will honor embargo agreements with standards of peer-reviewed periodicals in the scientific and medical communities.
- Targeted health messages will be sensitive to language and cultural differences and community norms.

Public Record Laws

Open meeting laws now in effect in every state have been enacted in an effort to end the practice of conducting public business behind closed doors. Statutes in all states give reporters and the public access to most state and local records and to meetings of deliberative bodies, including city and county councils, school boards, and the boards of trustees of state universities.[16]

Other kinds of records may or may not be freely available for public inspection. These include the following:

- Birth and death certificates
- Complaints filed with police
- Accident reports
- Welfare rolls

Access depends on whether a law defines them as public records, or whether courts applying common law, have defined them as such. These laws require legislative and administrative bodies to meet in public. Closed meetings can be permitted only for limited purposes. Most such laws define a public agency in broad enough terms to include any agency spending public funds.

Public records laws define a right of access for all persons, including journalists. The media are not granted any additional right of access beyond that of the general public to government materials. Legal precedent, however, supports the media's right to publish secret materials, if they can be obtained. For example, even when state laws prevent release of names of juvenile offenders, the Supreme Court has upheld that journalists can publish their names.

Freedom of Information Act (FOIA)[15]

A fundamental principle of democracy is that citizens be informed about their government. FOIA ensures that the federal government provides the public with requested information to the maximum extent possible. All records in a federal agency's possession that are not already in the public domain, such as those available in the library or available from a clearinghouse, are subject to FOIA. The act requires that federal agencies make the following information available for inspection and copying:

- Decisions of administrative tribunals
- Policy statements
- Staff manuals of instruction affecting the public

The federal FOIA does not apply to state and local governments. Instead, state and local governments are covered by their own freedom of information laws, which vary from state to state and city to city. The federal FOIA also does not cover local branches of federal agencies.

FOIA cannot be used to obtain documentary information in the possession of the following persons or organizations:

- The President and his advisers
- Congress, its committees, and the few agencies under its direct control, principally the Library of Congress and the General Accounting Office
- The federal judicial system

No forms are necessary to request information under FOIA. Seekers need only write a letter with as much detail as possible about the records they want. Using FOIA to obtain a person's medical records is more difficult, and executive agencies are exempt.

These types of records may be particularly of interest during a public health emergency.

To request records on a minor (a person less than 18 years of age), the consent form must be signed by the minor's parent or guardian. The relationship between the minor and the person signing must be noted on the consent form.

Several types of information are exempt from FOIA requirements and can be withheld (in other words, not disclosed). If you intend to withhold information, it must fall under at least one exemption. Exemptions are categories of records that an agency is allowed to or must withhold from release.

Records withheld by CDC/Agency for Toxic Substances and Disease Registry usually fall into the following exemption categories:

- Records (including personnel, medical, and similar files) whose release would constitute a clearly unwarranted invasion of privacy.[17]
- Records containing confidential business information or inter- or intra-agency records of a pre-decisional nature, which typically contain the opinions, conclusions, or recommendations of the author(s) and are part of the decision-making or policy-making process of the agency (Additionally, trade secrets and commercial or financial information obtained with the assurance that it will be kept confidential are exempted from disclosure because they could cause substantial competitive harm if disclosed. This information includes secret formulas, customer lists, and sensitive financial information and potentially could encompass information about pharmaceutical products in short supply during an emergency.)
- Records whose release is prohibited by a law (other than FOIA).

A few additional FOIA exemptions[18] that may be relevant during and emergency are listed below:

- **Materials properly classified under executive order "to be kept secret in the interest of national defense or foreign policy:**" This includes information that could jeopardize national security. Documents properly classified as Top Secret, Secret, or Confidential are not releasable. The designation "For Official Use Only" is not a national security classification and cannot be used as the sole basis for withholding information.
- **Internal personnel rules and practices of an agency:** Reports related solely to the internal personnel rules and practices of an agency do not have to be released. This provision is designed to relieve the government of the burden of maintaining routine material for public inspection.
- **Certain agency memorandums and letters:** Memorandums and letters within or between agencies that would not ordinarily be available to outsiders except in connection with a lawsuit are exempt.
- **Investigatory records compiled for law enforcement purposes:** However, the law does require disclosure of records if they do not do the following:
  - Interfere with an ongoing investigation
  - Identify confidential sources or methods of gathering information
  - Invade privacy
  - Interfere with a fair trial
  - Endanger lives
- **Certain information regarding wells:** Geological and geophysical information and data, including maps, that concern wells are exempt.

In response to FOIA requests, agencies may delete information from documents they send to the seeker if that information clearly would invade an individual's privacy. They must explain such deletions in writing. The agency also may refuse to release information that it believes to be covered by one of the exemptions. However, even when documents are withheld, the agency is required to describe them in a general way and give its reasons for denying access to them. Such a report is called a Vaughn index.

Requests for information do not have to be justified. These requests must be decided upon within 10 working days. If the agency decides not to release information, the seeker is entitled to appeal to an agency review officer, and the appeal must be granted or denied within 20 working days. If the law is observed, the maximum delay is limited to 30 working days, or 6 weeks.

Because some agencies have been overwhelmed with large numbers of requests or requests for huge volumes of documents, the law permits a 10-day extension. Agencies are permitted to charge fees to recover direct costs, such as employee labor and copying costs required to fulfill the request. If a request is deemed to be in the public interest, the agency can reduce, or even waive, its fee.

Privacy Act of 1974

The Federal Privacy Act of 1974 is designed to prevent disclosure by government agencies of personal data about employees and others.[19] It limits access to personal files collected by the government. Such files are defined as those that link an individual's name with "his education, financial transactions, medical history, and criminal or employment history."

The Privacy Act offers guidelines for providing required information without sacrificing a person's right to privacy. The following records concerning federal employees are a matter of public record and no further authorization is necessary for disclosure:

- Name and title of an individual
- Grade classification or equivalent and annual rate of salary
- Position description
- Location of duty station, including room number and telephone number
- Employee name in the case of accident or criminal charges, after next of kin has been notified
- An individual's current city and state of residence, in general
- Information on an individual's hospitalization or confinement while awaiting trial

In most circumstances, you may not release the following information:

- Age or date of birth
- Marital status and dependents
- Street address or phone number
- Race
- Sex
- Legal proceedings

The Privacy Act normally protects such personal information as medical records, pay records, age, race, sex, and family background. It is important to note, however, limitations of the Privacy Act:

- The Privacy Act does not apply when FOIA requires the release of information, and its reach is limited to federal information.
- Information held by the private sector, state government, and local government is not covered by the Privacy Act.
- Twelve exceptions allow disclosure, including a broad provision authorizing disclosure for any routine use compatible with the purpose for which the information was collected.[20]

In some cases, media representatives may insist on obtaining information protected or exempted by the Privacy Act. In these cases, consultation with a lawyer prior to disclosure is advisable.

Sample Privacy Act Notification Statement

"The Centers for Disease Control and Prevention, an agency of the Department of Health and Human Services, is authorized to collect this information, including the Social Security number (if applicable), under provisions of the Public Health Service Act, Section 301 (42 U.S.C. 241). Supplying the information is voluntary and there is no penalty for not providing it. The data will be used to increase understanding of disease patterns, develop prevention and control programs, and communicate new knowledge to the health community. Data will become part of CDC Privacy Act System 09-20-0136, "Epidemiologic Studies and Surveillance of Disease Problems," and may be disclosed: to appropriate state or local public health departments and cooperating medical authorities to deal with conditions of public health significance; to private contractors assisting CDC in analyzing and refining records; to researchers under certain limited circumstances to conduct further investigations; to organizations to carry out audits and reviews on behalf of HHS; to the Department of Justice for litigation purposes, and to a congressional office assisting individuals in obtaining their records. An accounting of the disclosures that have been made by CDC will be made available to the subject individual upon request. Except for these and other permissible disclosures expressly authorized by the Privacy Act, no other disclosure may be made without the subject individual's written consent."

In addition, the Privacy Act notification statement must appear on CDC forms which are used by states, hospitals, or other third-party suppliers of individually identified data to CDC if a full surname is present on the copy of the form that reaches CDC. The same prototype can be used if the last sentence is modified to read: "An accounting of such disclosures will be made available to the subject individual upon request."

Health Insurance Portability and Accountability Act (HIPAA) Privacy Regulations

The Privacy Rule established pursuant to the Health Insurance Portability and Accountability Act of 1996 imposes additional restrictions on disclosure of protected health information by covered entities:

- Individually identifiable health information generally may not be disclosed without consent.
- Covered entities are health-care providers, health plans, and health-care clearinghouses.

Most state and local health departments do not meet the criteria for a covered entity. However, to the extent these agencies provide direct health-care services to individuals and keep individual medical records in relation to these activities, the HIPAA Privacy Rule may apply to these records.

Even when the Privacy Rule applies, many exceptions to the consent requirement exist. For example, several exceptions would permit sharing for public health emergency purposes, including allowances to disclose without consent to comply with legally required disease-reporting obligations and to avert serious threats to health or safety.[17]

Privacy: Legal and Practical Considerations

Nearly all states protect a right of privacy. The four kinds of invasion comprising the law of privacy include the following:

- **Intrusion upon the individual's physical and mental solitude or seclusion:** This includes actions such as eavesdropping or entry without permission into another's private space.
- **Public disclosure of private facts:** A disclosure of private fact occurs when some medium of communication disseminates personal information that the individual involved did not want made public. The information must be of a nature that would be offensive to a person of ordinary sensibilities. Truth is not an absolute defense against disclosure. If the facts at issue are held to be newsworthy, or are taken from public record of a court or other governmental agency, publication is not an invasion of privacy. Newsworthiness is information deemed to serve the public interest.
- **False light:** False light occurs if an individual is portrayed as something other than they are to the point of embarrassment. Knowledge of falsity or reckless disregard for the truth must be proven.
- **Appropriation:** This involves the unauthorized use of one person's name or likeness to benefit another.

Working with Sensitive Information

Public Information Officers (PIOs) often have access to sensitive information. As a liaison to the press, PIOs must make decisions, in consultation with other emergency management officials, about the release of such data. Usually, these issues are evaluated in the clearance process, as described in Chapter 6. However, PIOs should consider the following before releasing information to the media:

- **Ability:** Do you have the information on the subject? You must physically have the information before you release it.
- **Competency:** Are you qualified to discuss the topic with the news media? If you are not the expert, find out who the expert is and arrange to have him or her brief the media.
- **Authority:** Do you have the authority to discuss the issue? It's always advisable to stay in close contact to your higher headquarters to coordinate your response and get its view of the big picture.
- **Security:** Is the information classified? The security limitation is most important because of the need to safeguard classified and sensitive data. But remember that the designation "For

Official Use Only" is not a national security classification and cannot be used as the sole basis for withholding information.

- **Accuracy:** Is the information accurate? PIOs have an obligation to provide accurate, factual information and to avoid speculation.
- **Propriety:** Is the information appropriate to the situation? Ensure that information released displays sensitivity and dignity. For example, do not release photographs of disease victims that could hurt family members.
- **Policy:** Do the policies of the agency permit release of this information?

Public Health Laws

Sources of Authority

Public health law primarily exists at the state and local levels of government, although federal law has an influence on public health authority as well. The following sections describe these legal considerations:

- State and local public health powers
- Limitations on public health powers, including those under federal law
- Relevant legal provisions and legal issues applicable to public health emergencies

"A natural disaster is usually the legal purview of the local state and local responders, so the local governments are the ones that have the authority to carry that out with support of the federal government after an emergency declaration."

RADM Thad Allen, Retired,
Former Commandant,
United States Coast Guard

State Public Health Powers

State governments (and, by delegation, their various subdivisions) possess the authority to enact and enforce public health laws under what is known as their police powers. This is a broad concept that encompasses the functions historically undertaken by governments in regulating society.

Police powers do not come from the U.S. Constitution. They are inferred from those powers traditionally possessed by governments and exercised to protect the health, safety, welfare, and general well-being of the citizenry. Under the federalist system established by the U.S. Constitution, police powers are not granted to the federal government. Instead they comprise a portion of the powers reserved for the states under the 10th Amendment.

Police powers have been used to uphold a wide variety of actions by the states, many quite broad in their reach and impact. Generally, such laws will be upheld if it can be shown that the laws are reasonable attempts to protect and promote the public's health, safety, and general welfare and that

the laws are not arbitrary or impulsive attempts to accomplish such an end. These broad powers allow public health officials to act to protect public health and well-being during emergencies.

Local Public Health Powers

Local health departments carry out activities under two types of authority:

- **Delegation of authority:** State legislatures commonly empower local health departments to carry out administrative functions of the state, such as the enforcement of the state public health code.
- **Home rule authority:** To avoid the need for specific authorization each time a new need arises, most states—either through legislation or by constitutional amendment—have given local governmental units the right of local self-governance. That means they have the right to make decisions concerning their own welfare.

These two approaches are relevant because they control the extent to which local health departments can act themselves to respond to public health threats.

In states that grant greater authority to local health departments, these local entities do not have to await state-level authorizations before taking public health actions. General grants of authority can at times serve as the basis for enacting ordinances in circumstances not specifically contemplated by the state legislature. For example, courts upheld the authority of the mayor of San Francisco to declare a "public health emergency" and authorize needle-exchange programs that were otherwise illegal under state law. The state of California later passed legislation supporting this interpretation of state law.[21]

City councils commonly develop their own local public health ordinances or health codes. This independent exercise of power is limited by the rule that localities may not assign responsibilities that are in conflict with state laws and regulations to local health departments. Thus, public health law is even more of a patchwork at the local level because health departments are responsible for local public health ordinances, but must also deal with enforcement authority, responsibility, and limitations established by state law.

Law and Public Health Agencies

Public health functions may be divided among a number of governmental departments, such as health, environment, and registration. Public health authority is typically exercised by boards of health and public health agencies at the state and local levels. The jurisdiction and legal authority of these entities vary from state to state. The relationship between state agencies and local public health departments within each state is itself varied and complex.

All 50 states; the District of Columbia; and the territories of Guam, Puerto Rico, American Samoa, and the U.S. Virgin Islands have a state or territorial health agency. This section refers to them as a state health agencies, for brevity. Each state health agency is directed by a health commissioner or a secretary of health. Each state also has a chief state health officer, who is the top public sector medical authority in the state. The same person may fill both positions.

A state health agency is generally organized as one of the following:[22]

- An independent agency directly responsible to the governor or a state board of health (in 28 jurisdictions)
- A division within a superagency (in 23 jurisdictions)

About 2,794 local health departments operate in the United States. They are structured in one of the following ways:[23]

- Centralized at the state level, with the state agency operating whatever local health agency units exist within the state (in 28% of jurisdictions)
- Autonomous units, with local health agencies operating completely independently of the state health agency and receiving only consultation and advice from the state (in 37% of jurisdictions)
- Hybrid structures, in which some programs are operated entirely by the state, some programs are shared with the local health department, and some programs have the state act merely as an adviser to the local health department (in 35% of jurisdictions)[22]

These varying structures and relationships between state and local health agencies are relevant for two reasons. First, these structural relationships dictate the scope of authority and independence of the state and local health agencies to engage in public health activities and to respond to public health emergencies. Second, these relationships allocate responsibility for preparing for and responding to public health emergencies to the governing entities in each jurisdiction.

Public Health Powers and Liabilities

Interaction among Levels of Government

The public health activities of the various levels of government are often interrelated and legal authority for these activities may coexist. For example, a local health department may inspect local nursing home facilities and make enforcement recommendations to a state agency, which has final enforcement authority. At the same time, federal Medicare and Medicaid regulations may actually have the biggest governmental influence on the operations of these same regulated facilities.

In many instances, the federal government has the legal authority to preempt an area of public health regulation, denying regulatory authority to the states. Similarly, the states have authority to preempt all areas of public health regulation from local governments, denying county and municipal governments regulatory authority. The governmental level with highest authority has several options. It may do any of the following:

- Choose not to exercise its potential authority, leaving the lower levels of government the decision to adopt the legislation it deems appropriate
- Preempt the area, adopt legislation, and implement the program
- Preempt the area by adopting legislation and delegating the program's implementation to a lower government unit to run

Limitations on Public Health Powers

Although the courts have interpreted state police powers broadly, government authorities do have limits placed on their powers. Limitations on state and federal powers are found in the following:

- The U.S. Constitution
- State constitutions
- Federal and state laws

The U.S. Constitution grants the federal government specifically enumerated powers, reserving all other powers to the states. The U.S. Constitution also describes a series of individual rights that must be protected. If public health laws or actions infringe on constitutionally protected individual rights, courts must balance between the collective needs of the community and the liberty of the individual. In general, courts traditionally have been very reluctant to invalidate these public health laws, even for the sake of protecting individual rights.

Reality Check

The United States Supreme Court has upheld numerous public health laws at the state and local levels. The seminal 1905 decision in Jacobson v. Massachusetts, 197 U.S. 11 (1905), involved a challenge to a mandatory smallpox vaccination statute enacted by a local government:

- The Court applied the police powers broadly, finding that society can be "governed by certain laws for the common good" and that competing individual rights are not absolute.
- Since the Supreme Court decided the Jacobson case in 1905, it has broadened its recognition of individual rights.[24]
- The Supreme Court first recognized the broad right to privacy more than half a century after its Jacobson decision, and the recognition of that right has since been important in several of its decisions on public health issues.[25,26]

Nevertheless, compulsory examination, treatment, and quarantine powers have long been upheld by the nation's courts as legitimate governmental requirements, despite their highly intrusive nature. During public health emergencies, these powers are even more likely to be upheld given the necessities of the situation.

Constitutional Rights

The U.S. Constitution protects the individual from certain types of restrictive action by the federal government. Many public health laws have been challenged on the basis that they interfere with the civil liberties guaranteed by the Constitution. For example, several provisions of the First Amendment to the Constitution—rights to free exercise of religion, free speech, and free assembly—may be affected by public health powers.

- **Freedom of religion:** The First Amendment states that "Congress shall make no law… prohibiting the free exercise [of religion]."[1] When conflict occurs between a legitimate, otherwise valid law and a religious practice, the courts will look at the following:
  - The believer's sincerity is reviewed, not the validity of the particular underlying religious beliefs.
  - How central or essential the practice at issue is to the particular religion.

Where the court finds a real conflict between religious belief and an otherwise valid law, it must weigh the competing social and individual interests.

Public health concerns have been deemed to outweigh individual interests in the area of compulsory vaccination. As the U.S. Supreme Court stated, "The right to practice religion freely does not include liberty to expose the community … to communicable disease …"[27] It should be noted, however, that states sometimes choose to provide an exemption in their vaccination laws for persons whose religious beliefs prohibit vaccination.

- **Freedom of speech:** Laws may also be invalidated because they conflict with another section of the First Amendment that protects the free communication of ideas: "Congress shall make no law … abridging the freedom of speech, or of the press."[1]

  Laws can conflict with free expression and communication either directly or indirectly:

  - A law making it a crime to publicly discuss the details of an emergency or disaster would be intentionally aimed at restricting communication and likely would be barred by the First Amendment.
  - A law aimed at something other than communication, but restricting communication as a secondary or indirect effect might also be barred.
  - A law compelling the disclosure of information may also face scrutiny, because the freedom of speech encompasses the freedom not to speak as well. For example, a law that requires health workers to disclose the names and medical information about their patients as part of a bioterrorism investigation could collide with their first amendment right of free speech, as well as legal obligations found in privacy and confidentiality laws.

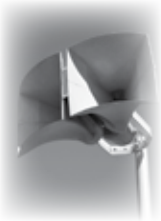
  The importance of an investigation may be determined to outweigh these concerns and laws such as these may be upheld.

- **Freedom of assembly:** A third section of the First Amendment protects "the right of the people peaceably to assemble."[1] This provision can give rise to challenges against social distancing measures—such as mass home quarantine, road closures, and bans on public events—that may be used during a public health emergency.

- **Due process and equal protection:** The Fifth and Fourteenth Amendments to the U.S. Constitution protect individuals from being deprived by government of "life, liberty, or property, without due process of law."[1]

  Due process of law requires the government to uphold both procedural and substantive due process. Procedural due process demands that government provide fair procedures for individuals subject to law, which typically include the following:

  - Notice
  - Access to counsel
  - A hearing by an impartial arbiter
  - Ability to cross-examine
  - Written opinion
  - Option to appeal



In emergency circumstances, some of these robust procedural protections may be waived or delayed by a court. Substantive due process, by comparison, requires the government to justify government actions with sufficient reasons.

In an emergency context, due process rights are most relevant in circumstances where a person's liberty is restricted or property taken to further a public health goal.

The Fourteenth Amendment states, "… no person shall be denied equal protection of the laws."[1] Equal protection is an intricate concept that can be violated in two ways:

- The government may deny equality if its rules or programs make distinctions between persons who are actually similar in terms of any relevant criteria. For example, if a law restricted governmental job eligibility based on sex rather that training and ability, it would be denying equality in the application of law.
- The government may deny equality if it fails to distinguish between persons who are actually different in terms of relevant criteria. For example, a government program that provided free smoke detectors to the public would violate equal protection rights of persons with disabilities if it required them to appear personally at a government office to obtain one.

Equal protection does not require the same treatment in all instances. Government often classifies people into groups and treats the groups differently. For example, state laws prohibit alcohol and tobacco use for minors and some governments apply more stringent driver's license requirements to persons over 75 years of age. And several states restrict the driving privileges of persons suffering from certain medical conditions. Yet these distinctions have not been held to be violations of equal protection.

Government can differentiate between individuals and groups, and deprive them of liberty or property, if it has good reason to do so. Courts evaluate alleged violations of substantive due process and equal protection by balancing government actions with individual rights under the following three standards:

Strict scrutiny: The strict scrutiny standard applies when the law involves a "suspect classification," such as race, sex, or national origin. It also applies when the law affects a "fundamental right," such as interstate travel, voting, procreation, marriage, or free speech. The strict scrutiny standard is very difficult to satisfy. Under this higher standard, the government must show the following:

- A compelling state interest in applying the law unequally
- That the law is tailored narrowly to achieve that purpose

Intermediate scrutiny: The intermediate scrutiny standard applies when the law involves discrimination based on sex or against "illegitimate" children.[28,29] Under this higher standard, the government must show the following:

- An important state interest in applying the law unequally
- The law is substantially related to achieving that purpose

Rational basis scrutiny: The rational basis standard applies in cases that do not involve a "suspect classification" or a "fundamental right." The standard is easily and routinely met. It simply requires that government offer some plausible basis for a law's unequal application.

- **Taking of private property:** The Fifth Amendment also provides that no private property shall be taken for public use without just compensation. The Fifth Amendment prohibition applies to two types of property:
  - Real property, defined as land, buildings, and other real estate
  - Personal property, defined as everything that is subject to ownership, that is not considered "real property"

  Many public health laws prohibit, ban, or otherwise regulate the possession or use of hazardous agents, products, and real estate. The government does so to protect the public's health and safety. Such laws may substantially interfere with use and enjoyment of property.

  Property taken during a public health emergency may give rise to governmental liability for the value of the property taken, or the government may avoid obligations to compensate people if the property is taken to prevent harm or avert a public nuisance.

Public Health Officials' Responsibilities and Liabilities

Public health authorities have broad legal authority giving them the power to institute a wide variety of measures to protect the public's health and safety. Public health officials may have to consider the following questions:

- What does the law say about those responsibilities, and are they discretionary or mandatory?
- Can an individual or organization be forced to act?
- Can actions or failure to act be the source of legal jeopardy?
- What happens if actions result in harm?
- Can an individual or organization be sued for damages or threatened with criminal prosecution?

To be able to answer these questions, public health officials need to consider their responsibilities and liabilities:

- **Responsibilities:** State statutes that authorize public health officials to protect and enhance the public's health and safety outline a variety of functions. These functions are classified as either mandatory or discretionary:
  - **Mandatory functions:** These are duties that an agency must undertake by legislative mandate. The statute leaves no room for an agency to determine whether to carry out the function. Examples of mandatory functions include the following:
    - » Statutory requirements to maintain vital records
    - » Legal mandates to develop toxic air pollutant regulations
    - » Ordinances requiring agencies to hold "open or public meetings" and to make other information available to the public.
  - **Discretionary functions:** These are defined as duties involving the exercise of judgment or discretion in connection with planning or policy-making. Discretionary activities may include the following:
    - » Decisions to create a waste disposal site
    - » Management of natural resources
    - » Planning inspection and social service policies
    - » Allocating funds for inspection of nursing homes and day-care facilities

    Health departments have a legal responsibility to carry out mandatory functions. However, they are allowed considerable latitude in how and when to carry out discretionary functions.
- **Liabilities:** Liability laws covering state and local health department agencies and employees vary considerably across the country.
  - **Liability of states and their political subdivisions:** In most, if not all, states and localities, government officials are, by statute, granted immunity from lawsuits arising from the exercise of their governmental functions. Most state governments may be held liable for negligence arising from the exercise of proprietary functions (services that must comply with professional standards of care, such as medical services). State laws generally take of two forms:
    - » Overall immunity is granted to the state, subject to specified exceptions. In such states, immunity is the general rule and the limited circumstances under which the state agrees to be sued are specifically described.

  - » Immunity is the exception. State statutes following this model confer immunity on a limited basis as exceptions to a comprehensive scheme permitting lawsuits against the government. In such states, the doctrine of sovereign immunity is abolished and immunities are restored on a limited basis as deemed appropriate by state legislators.

- **Tort immunities:** The rules for governmental tort immunities of counties and municipal corporations usually take one of three forms, the first of which is the most common:
  - » The state tort claims act governs the tort immunities of its counties and municipal corporations.
  - » The state tort claims act expressly excludes political subdivisions from coverage; more limited immunities are usually provided to them under a separate tort claims act.
  - » In a small minority of states, the rules governing immunity for counties and municipalities remain defined by common law principles.

Regardless of the form they take, virtually all state tort claims acts do the following:

- » Retain immunity for essentially governmental functions
- » Waive immunity for negligence of governmental officers and employees acting within the scope of their employment
- » Establish procedures for filing claims against the government
- » Limit the amount of damages that may be recovered
- » Authorize governmental entities to purchase liability insurance

- **Negligence:** The term "negligence" means a failure to exercise reasonable care and caution. The standard by which the legal system judges "reasonable care" is often expressed as that which a "prudent" or careful person would do.
- **Liability for proprietary functions:** Public health agencies are often involved in the provision of clinical services through public health clinics, school health programs, and the like. In such situations, the public health clinician has a legal responsibility to provide care that meets the same high professional standards expected of private clinicians.

  Failure to perform at this level of care and competency constitutes malpractice, that is, negligent performance by a professional that results in harm to the patient or client. In this situation, professionals who provide clinical services in health departments need malpractice insurance protection, which is usually provided by the employer (in this case, by the government).

- **Liability for governmental functions:** What about the public health professional's regulatory role? Certainly harm can result from the enforcement of public health laws. For example, a hotel commandeered during an infectious disease outbreak to house quarantined people will lose business during the event and afterward, perhaps running into the tens of thousands of dollars. The owner of the hotel is unlikely to be able to sue successfully for damages under tort law because virtually all states provide immunity from tort actions arising out of the performance of essential governmental functions.

  In most states, the general rule is that governmental entities are immune from suit for torts committed by their officers and employees in performing basic governmental functions, unless liability is specifically permitted by statute, or the function, even though essentially governmental in nature, is official rather than discretionary. For the most part, the courts are extremely reluctant to impede the important work of governmental agencies by expanding the scope of their liability. For this reason, they often go to great lengths to define functions to fall within the scope of a state's immunity rules.

- **Liability of individual health officers—qualified immunity:** Injured persons who go to the time and expense of bringing a lawsuit will often name not only a governmental entity as a defendant but also the officers, agents, or employees who were involved in the incident. The latter may be sued in their official capacity as well as personally.

  As a general rule, when a government employee performs duties in good faith and in a reasonable fashion, that employee is not personally liable for damages that may result from his or her acts. Judges understand that if people are made too fearful of the legal consequences of their actions, they will be timid and ineffectual in carrying out their duties—not a desirable state of affairs. Thus, the courts have fashioned legal doctrines that afford public health practitioners broad immunity from lawsuits.

  This is qualified, not absolute, immunity. It only applies under circumstances where the government employee is acting in good faith within the scope of his or her authority. The principle would not hold in the following instances:

  » Gross and willful carelessness

  » Malicious, corrupt or criminal actions

  » Acts that went beyond the authority vested in the public health agency or the scope of employment

  Going beyond an agency's appropriate authority may seem less clear-cut. But in fact, this problem would arise not from taking legitimate authority to excess, but rather from going off into completely unauthorized or clearly invalid areas, such as attempting to require participation in religious services by all nursing home residents.

- **Variations on the general rule:** State statutes vary widely in the amount of protection offered to individuals. In some jurisdictions health officials may be held liable for negligently performing ministerial, as opposed to discretionary, acts. For example, health officials may be personally liable for operating a motor vehicle in a negligent manner and for failing to follow authorized protocols in providing health services.

- **Other sources of immunity from liability:** Government employees and volunteers may be protected from liability through other statutory provisions specifically designed to vaccinate emergency responders and others acting for the public good.

  The Volunteer Protection Act is a federal law enacted in 1996 that provides immunity for volunteers for harm caused by acts or omissions only if they were acting within the scope of their responsibility, properly licensed or certified, not receiving compensation, and not engaged in willful, criminal or reckless misconduct or gross negligence.

  The Public Readiness and Emergency Preparedness Act of 2005 provides liability protection under federal and state law for manufacturers, administrators, and distributors of vaccines, and other "covered persons" as defined by the act, who prescribe, administer, or dispense "countermeasures." Those protected under this act are provided immunity from claims of any type of loss due to countermeasures used when a public health emergency has been declared.

  At the state level, Good Samaritan statutes, found in every state, provide immunity to individuals who attempt to rescue others in an emergency. The scope of these provisions varies, with some states excluding health professionals from this sort of protection. Some states have gone even further and have enacted specific immunity protections for volunteers during public health emergencies. The Uniform Emergency Volunteer Health Practitioners Act and the Emergency Management Assistance Compact provide templates for state laws granting volunteer health professionals from other states immunity to incentivize them to help without fear of liability and to create more uniformity and clarity in the protections that are provided to emergency volunteers.

- **Other legal protections from discrimination during emergencies:** Several other laws provide important protections during public health emergencies, including the following:

  » **Americans With Disabilities Act:**[30] The Americans With Disabilities Act (ADA), originally passed in 1990 and amended in 2010, prohibits discrimination of persons with a disability in employment, state and local government, public accommodations, commercial facilities, transportation, and telecommunication. An individual with a disability is defined by the ADA as a person who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such impairment, or a person who is perceived by others as having such impairment. The regulations cover activities of the health department, whether provided directly or through contractual licensing or other arrangement.

Under Title II of the ADA, which applies to state and local governments, public health agencies must provide people with disabilities with an equal opportunity to utilize their programs, services, and activities. To meet these requirements, state and local government must meet certain architectural standards in the construction of new facilities. They are also required to ensure access to older and existing structures; however, they are not required to make changes that result in undue financial or administrative burdens. During an emergency, local governments and public health agencies are required to adhere to Title II in their response to the emergency, meaning that persons with disabilities are not to be discriminated against and are to receive proper communication and accommodation to be afforded the same safety and protection as persons without disabilities.

In 2011, Title II and Title III were amended to include requirements for service animals, use of wheelchairs, use of power mobility devices, effective communication, and examinations and courses. These requirements, like the 2010 amendments, came into effect on March 15, 2012.

In developing emergency preparedness, response, and communication plans, persons with disabilities may require certain accommodations to ensure they are receiving the same information and the same opportunities for protection from the consequences of the emergency. Key issues to be addressed will include the following:

- Adequate planning for communication, notification, evacuation, transportation, and sheltering
- Access to medications and back-up power
- Access to mobility devices or service animals
- Access to information

Information on how to include protections and planning for individuals with disabilities may be found at the ADA website, http://www.ada.gov/emergencyprepguide.htm, which offers a comprehensive guide on emergency preparedness.[31]

One example of preparing for disabilities involves hearing impairments. If a community's warning system involves the use of sirens, other types of warnings should be adopted as well to accommodate persons who cannot hear the sirens. Many of these issues can be managed quite easily by formulating an emergency response plan that takes into consideration the needs of persons with disabilities.

- **Civil Rights Act of 1964, Title VI:** The Civil Rights Act of 1964[32,33] prohibits discrimination based on race, color, or national origin. Section 601 of the act states:

  No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

  Health departments have been challenged for discrimination based on national origin and limited English proficiency. A complaint was filed with the U.S. Office of Civil Rights by an Illinois resident on behalf of himself and other non- and limited-English-speaking persons, alleging that an Illinois county health department discriminated against them based on national origin. The complaint specifically alleged that the county denied or delayed their receiving services, required them to provide their own interpreters, and treated them in a discriminatory manner. As evidence of the latter, the complainants asserted that county officials made negative comments, had a hostile attitude, and assigned them to Spanish-speaking clinics.

  As a result of the complaint, the Illinois county worked with the complainants and the U.S. Office of Civil Rights to hire interpreters, conducted sensitivity training for its staff, and reorganized delivery services to prevent segregation of Spanish-speaking persons. Similar claims could arise under this Act based upon discrimination perpetrated during the planning or implementation of a public health emergency response.

  CDC has taken affirmative steps to ensure that emergency preparedness and other public health materials are equally accessible to members of the population who do not speak English fluently by producing materials in multiple languages. Additionally, materials have been developed to target different education levels to provide accessible and comprehensible materials for all members of the public.

State Public Health Emergency Powers

Individual states possess the principal legal powers to control epidemics consistent with those described previously, but have had little experience using disease control laws in large-scale public health emergencies. Existing laws were crafted, in many cases, to deal with the outbreaks typical of the early 20th century.

As part of a broad effort to strengthen the country's preparedness for bioterrorism and other public health emergencies, many states revised their public health laws to modernize or augment emergency health powers. A number of states decided to adopt or modify the provisions contained in the Model State Emergency Health Powers Act.[34] According to the Center for Law and the Public's Health at Georgetown and Johns Hopkins (which drafted the Model Act), as of July 15, 2006, 44 states and the District of Columbia have introduced bills or resolutions based in whole or in part on the model law.[35]

This model law addressed a wide range of legal issues, including the following:

- Reporting of disease cases
- Quarantine
- Vaccination
- Protection of civil liberties
- Property issues
- Infectious waste disposal
- Control of health-care supplies
- Access to medical records
- Effective coordination with other state, local, and federal agencies

Restrictions on Personal Liberty

The most relevant, and controversial, of the emergency powers are provisions that authorize restrictions on personal liberty (quarantine, isolation, travel restrictions, loss of privacy) and property (decontamination, use of supplies and facilities, disposal of remains). Once a public health emergency has been declared pursuant to the law, public health officials have increased authority to use their police powers to rapidly respond to emerging circumstances to protect the public's health.[36]

Restrictions on personal liberty imposed by public health officials can include the following:

- Quarantine and isolation
- Travel and trade restrictions
- Violations of privacy
- Social distancing measures
- Compulsory treatment

Quarantine and isolation powers, restrictions on movement of goods and people, and other compulsory measures exist under federal and state laws.

At the federal level, the Public Health Service Act grants the U.S. Public Health Service responsibility for preventing the introduction, transmission, and spread of communicable diseases from foreign countries into the U.S.[37] Under its delegated authority, the Division of Global Migration and Quarantine is empowered to detain, medically examine, or conditionally release individuals and wildlife suspected of carrying a communicable disease.

The list of diseases for which quarantine can be required is contained in an executive order of the president and includes the following:[38]

- Cholera
- Diphtheria
- Infectious tuberculosis
- Plague
- Smallpox
- Yellow fever
- Viral hemorrhagic fevers such as Marburg, Ebola, and Crimean-Congo hemorrhagic fever

In 2005, an executive order was signed adding **pandemic influenza** to the list:[39]

For ships and airplanes destined for the U.S., the captain or commander of the vessel must report recent deaths or illnesses among passengers on the vessel to federal authorities. The CDC Director may require detention of a carrier until the measures necessary to prevent the introduction or spread of a communicable disease have been completed.

The number of travelers and the speed of travel within and between nations have increased the opportunities for disease to spread from one country or continent to another. The outbreak of Severe Acute Respiratory Syndrome (SARS) during 2002–2003 posed a substantial challenge for national and international systems designed to control the spread of communicable diseases.[40] SARS emerged initially from China, but rapidly spread to 29 countries over several months. As a new communicable disease in human populations, initially there were no screening tests or treatments for SARS. Early infections resulted in high rates of illness and death.

Because of the risk of this new epidemic and the uncertainty surrounding its cause, source, and method of spread, many countries implemented quarantine and isolation for those exposed to or showing symptoms of SARS. The World Health Organization (WHO) endorsed the use of quarantine and isolation in these circumstances because of the following:

- SARS was new and novel.
- SARS was a pathogen that was highly able to cause disease.
- SARS had no treatment or containment alternatives at the time.

Canada used primarily voluntary quarantine measures to address possible SARS exposures. China, Taiwan, Hong Kong, and Singapore used more coercive mandatory quarantine orders that included harsh penalties and enforcement tactics.

Isolation typically occurred in hospital settings while quarantine most often was applied in a person's home. Many health-care workers treating infected patients were also subject to modified quarantine orders, allowing them to travel to and from work but otherwise limiting contact with others. Social distancing measures such as school and work closings were also implemented in some countries.[35,38]

While the U.S. was not significantly affected by the SARS epidemic, the lessons of this outbreak primed later responses to pandemic influenza in 2009. Additionally, a new emerging infectious disease like SARS would trigger the International Health Regulations, international standards for preventing the spread of infectious diseases. These standards allow WHO to declare an infectious disease a "public health emergency of international concern" and respond by providing assistance and making recommendations to affected countries.[41]

U.S. federal law also permits the Director of the CDC to take measures to prevent spread of diseases, when the Director determines that the measures taken by health authorities of any state or U.S. possession are insufficient to prevent the spread of communicable diseases from one state to another.[7,42] Measures may include the following:

- Inspection
- Fumigation
- Disinfection
- Sanitation
- Pest extermination
- Destruction of animals or articles believed to be sources of infection

A person who has a communicable disease during the period when the disease can be transmitted to other people can be restricted from traveling from one state or possession to another without a permit from the state or territorial health officer, or destination locality.

The person in charge of any conveyance, such as a bus, ship, or plane, that is engaged in interstate traffic on which a case or suspected case of a communicable disease develops is required, as soon as practicable, to notify the local health authority at the next port of call, station, or stop, and to take measures to prevent the spread of the disease as the local health authority directs.

State laws authorize quarantine and isolation powers. Most often these powers are explicitly granted in the state public health code, and courts have consistently upheld these powers as consistent with state police powers. The scope of state quarantine and isolation measures varies:

- Some states have broad powers that could be applied to any emerging infectious disease threat.
- Other states have regulations targeted to specific conditions.

More targeted quarantine and isolation measures, such as those that only apply to specific disease conditions, could cause problems. If new diseases emerge and threaten the public's health, it may not be clear whether public health officials could use quarantine and isolation rules to respond.

Constitutional limitations on the use of these coercive powers apply as well. Quarantine and isolation powers must comply with procedural and substantive due process provisions. Since deprivation of liberty involves a fundamental right, the government must demonstrate that it has a compelling interest and the power is being applied in a way that is narrowly tailored to achieve a public health goal.

Other uses of state police powers for community containment, such as social distancing, event cancellation, and related strategies, also may raise constitutional concerns. These, however, are less restrictive on liberties and therefore less likely to face strict scrutiny by a court.

Restrictions on Property

Public health emergency powers may permit a range of action by state and local governments to restrict, secure, and manage property during an emergency response. Many situations might require property management in a public health emergency. Examples include the following:

- Decontamination of facilities
- Acquisition of vaccines, medicines, or hospital beds
- Use of private facilities for isolation, quarantine, or disposal of human remains

During the anthrax attacks in 2001, public health authorities had to close various public and private facilities for decontamination. Consistent with legal fair safeguards, including compensation for taking private property used for public purposes, clear legal authority is needed to manage property to contain a serious health threat.[43]

Once a public health emergency has been declared, some states allow authorities to use and take temporary control of certain private sector businesses and activities that are of critical importance to epidemic control measures. Authorities may take control of landfills and other disposal facilities and services to safely eliminate infectious waste. This could include bodily fluids, biopsy materials, syringes, and other materials that may contain pathogens that otherwise pose a public health risk. Health-care facilities and supplies may be procured or controlled to treat and care for patients and the general public. Areas normally accessible to the public may be closed to prevent additional exposures.

Whenever health authorities take private property to use for public health purposes, constitutional law requires that the property owner be provided just compensation. This means the state must pay private owners for the use of their property.

For situations in which public health authorities must condemn or destroy private property posing a danger to the public, such as equipment contaminated with anthrax spores or smallpox virus, no compensation to the property owners is required. States, however, may choose to make a fair compensation.

Under existing legal powers to abate public nuisances, authorities are able to condemn, remove, or destroy any property that may harm the public's health. Other permissible property control measures may include restricting certain commercial transactions and practices, such as price gouging, to address problems arising from the scarcity of resources that often accompanies public health emergencies.

While property control measures may generate controversy, they were created to provide public health authorities with important powers to more rapidly address an ongoing public health emergency. Because the application of law varies in different states, it is advisable to consult with an attorney to understand the applicable law in any particular jurisdiction.[44]

Modern Day Example of Emergency Response and Communication: H1N1

Outbreaks of various flu strains have lead to some of the changes and modern-day use of the public health powers discussed in this chapter. One of the first developments occurred in 2005 when an executive order was signed adding certain types of flu to the list of diseases to be quarantined. The language in the executive order specifically states: "Influenza caused by novel or re-emergent influenza viruses that are causing, or have the potential to cause, a pandemic."[39]

The major utilization of these powers, however, occurred during the 2009 H1N1 outbreak, resulting in multiple states, the Food and Drug Administration, and the Department of Health and Human Services declaring public health emergencies.[45]

Once the virus was discovered, CDC took immediate action in beginning to track the disease and the possibility of its spread. After determining that the virus could spread between humans, vaccine work began. On April 25, 2009, under the rules of the International Health Regulations, the Director of WHO declared the outbreak a public health emergency of international concern. On April 26, 2009, the U.S. also declared a nationwide public health emergency.

WHO issued recommendations for the preventing the spread of, or contracting, this influenza virus on April 27, 2009. The recommendation included staying home if exhibiting symptoms of any kind to prevent spreading. WHO also advised taking antiviral medications if recommended by a doctor. On April 29, WHO declared a pandemic was imminent and requested countries implement their pandemic preparedness plans. The U.S. did so and CDC continued to communicate with the public, schools, and health-care professionals to provide information on how to deal with this particular flu strain.

Preventive measures were a key focus of pandemic response efforts, including developing a vaccine and impeding the spreading of the disease through social distancing. A number of local school districts, for example, closed schools and suspended group activities to attempt to stop the spread of the disease.

The H1N1 example shows that in a modern day pandemic, international cooperation, immediate and constant action, preparedness, and preventive measures are at the forefront of handling this type of public health emergency. Communication between countries, public health officials, local governments, health-care workers, schools, and the general public remains integral in these types of circumstances. Utilizing emergency preparedness plans, state emergency powers, and other relevant legal provisions may help contain the spread of infection and mitigate the scope of harm when this type of disaster strikes.

Conclusion

This chapter outlined many of the important legal issues and requirements that may apply when using CERC during public health emergencies. Laws will greatly influence your communication activities and the actions of public health officials in emergency situations.

While this brief overview provides a general roadmap to relevant laws, it's important to consult with counsel during actual events to determine the specific legal obligations that must be followed.

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Acronyms

Acronyms

A

ADA	Americans With Disabilities Act
AHRQ	Agency for Healthcare Research and Quality (U.S. Department of Health and Human Services)
AMA	American Medical Association
APHL	Association of Public Health Laboratories
ASH	Assistant Secretary for Health
ASPR	Assistant Secretary for Preparedness and Response (U.S. Department of Health and Human Resources)
ATF	Bureau of Alcohol, Tobacco, Firearms, and Explosives (U.S. Department of Justice)
ASTHO	Association of State and Territorial Health Officers
ATSDR	Agency for Toxic Substances and Disease Registry (U.S. Department of Health and Human Services)

B

BIA	Bureau of Indian Affairs (U.S. Department of the Interior)

C

CBDP	Community-based disaster preparedness
CBP	U.S. Customs and Border Protection (U.S. Department of Homeland Security)
CBRNE	Chemical, biological, radiological, nuclear, and explosive
CDC	U.S. Centers for Disease Control and Prevention (U.S. Department of Health and Human Services)
CEPR	Centre for Emergency Preparedness and Response (Public Health Agency of Canada)
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFBCI	Center for Faith-Based and Community Initiatives (U.S. Department of Homeland Security)
CFR	Code of Federal Regulations
CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
CIA	Central Intelligence Agency

CMAS	Commercial Mobile Alert System
CMS	Centers for Medicare and Medicaid Services (U.S. Department of Health and Human Services)
CRS	Catholic Relief Services
CSTE	Council of State and Territorial Epidemiologists

D

DART	National Disaster Animal Response Team (Humane Society of the United States)
DAS	Deputy assistant secretary
DEO	Division of Emergency Operations (U.S. Centers for Disease Control and Prevention)
DFO	Disaster field office
DHHS	U.S. Department of Health and Human Services
DHS	U.S. Department of Homeland Security
DLA	Defense Logistics Agency (U.S. Department of Defense)
DMAT	Disaster Medical Assistance Team
DMORT	Disaster Mortuary Response Team, National Disaster Medical System
DOC	U.S. Department of Commerce
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOEd	U.S. Department of Education
DOI	U.S. Department of the Interior
DOJ	U.S. Department of Justice
DOL	U.S. Department of Labor
DOS	U.S. Department of State
DOT	U.S. Department of Transportation
DVA	U.S. Department of Veterans Affairs

E

ECDC	European Centre for Prevention and Disease Control
EEO	Equal employment opportunity
EIDJ	Emerging Infectious Disease Journal
EIS	Epidemic Intelligence Service (U.S. Centers for Disease Control and Prevention)
EMS	Emergency medical services

EO	Executive order
EOC	Emergency operations center
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-To-Know Act
ERC	Emergency response coordinator
ERCG	Emergency response coordination group
ERM	Emergency Risk Management and Humanitarian Action (World Health Organization)
ERT	Emergency response team
ESF	Emergency support function
EUA	Emergency use authorization

F

FAA	Federal Aviation Administration (U.S. Department of Transportation)
FBI	The Federal Bureau of Investigation (U.S. Department of Justice)
FBO	Faith-based organization
FCC	U.S. Federal Communications Commission
FCO	Federal coordinating officer
FDA	Food and Drug Administration (U.S. Department of Health and Human Services)
FECC	Federal emergency communications coordinator
FEMA	Federal Emergency Management Agency (U.S. Department of Homeland Security)
FHWA	Federal Highway Administration (U.S. Department of Transportation)
FLSA	Fair Labor Standards Act
FNEP	Federal Nuclear Emergency Plan
FOIA	Freedom of Information Act
FR	Federal Register
FRA	U.S. Federal Railroad Administration (U.S. Department of Transportation)
FRP	Federal Response Plan
FTS	Federal telecommunications systems

G

GAO	General Accounting Office (U.S. Legislative Branch)
GAR	Global Alert and Response (as in GAR System) (World Health Organization)

GPHIN	Global Public Health Information Network (Public Health Agency of Canada)
GPO	Government Printing Office (U.S. Legislative Branch)
GPS	Global positioning system
GS	General schedule
GSA	U.S. General Services Administration

H

H1N1	2009 pandemic influenza A (H1N1)
H5N1	Influenza A (H5N1) (avian influenza)
HAN	Health Alert Network (U.S. Centers for Disease Control and Prevention)
HHS	U.S. Department of Health and Human Services
HIPAA	Health Insurance Portability and Accountability Act
HSAB	Health and safety advisory board
HSPD	Homeland security presidential directive
HSUS	Humane Society of the United States
HUD	Department of Housing and Urban Development
HQ	Headquarters

I

IAEA	International Atomic Energy Agency
IAG	Interagency agreement
IBC	Institutional Biosafety Committee
ICS	Incident command system
IED	Improved explosive device
IG	Office of the Inspector General (U.S. Department of Health and Human Services)
IHR	International Health Regulations
IHS	Indian Health Service
IOM	Institute of Medicine (National Academy of Sciences)
IPAWS	Integrated Public Alert Warning System (Federal Emergency Management Agency)

J

JCAHO	Joint Commission on Accreditation of Healthcare Organizations

JHPHPP	Johns Hopkins Public Health Preparedness Programs
JIC	Joint information center

K

KRC	Knowledge and Resource Centre on Health Communication (European Centre of Disease Prevention and Control)

L

LWR	Lutheran World Relief

M

MHPF	Minority Health Professionals Foundation
MMWR	Morbidity and Mortality Weekly Report
MOA	Memorandum of agreement
MOU	Memorandum of understanding
MSEHPA	Model State Emergency Health Powers Act
MSPB	U.S. Merit Systems Protection Board
MUPS	Multiple unexplained physical symptoms

N

NACCHO	National Association of County and City Health Officials
NALBOH	National Association of Local Boards of Health
NAPHSIS	National Association for Public Health Statistics and Information Systems
NARFE	National Association of Retired Federal Employees
NAS	National Academy of Sciences
NASA	National Aeronautics and Space Administration
NCEH	National Center for Environmental Health (U.S. Centers for Disease Control and Prevention)
NCHS	National Center for Health Statistics (U.S. Centers for Disease Control and Prevention)
NCP	National Contingency Plan
NDMS	National Disaster Medical System
NECC	National Emergency Coordination Center (U.S. Federal Emergency Management Agency)
NEIS	National Earthquake Information Service
NEJM	New England Journal of Medicine

NGO	Nongovernmental organization
NIH	National Institutes of Health
NIMS	National Incident Management System
NIOSH	National Institute of Occupational Safety and Health
NLM	National Library of Medicine
NLTN	National Laboratory Training Network
NNSA	National Nuclear Safety Administration (U.S. Department of Energy)
NOAA	National Oceanic and Atmospheric Administration (U.S. Department of Commerce)
NPD	National Preparedness Directorate (U.S. Federal Emergency Management Agency)
NPHIC	National Public Health Information Coalition
NRC	Nuclear Regulatory Commission
NRDAR	Natural Resource Damage Assessment and Restoration (NRDAR Program) (U.S. Department of the Interior)
NRF	National Response Framework
NRS	National Response System
NRT	U.S. National Response Team
NSB	National Security Branch (U.S. Federal Bureau of Investigation)
NSF	National Science Foundation
NSIR	Office of Nuclear Security and Incident Response (Nuclear Regulatory Commission)
NVOAD	National Voluntary Organizations Active in Disaster
NVPO	National Vaccine Program Office (U.S. Department of Health and Human Services)
NWS	National Weather Service

O

ODP	Office for Domestic Preparedness (U.S. Department of Homeland Security)
OEC	Office of Emergency Communications (U.S. Department of Homeland Security)
OEP	Office of Emergency Preparedness (U.S. Department of Health and Human Services)
OET	Office of Emergency Transportation (U.S. Department of Transportation)
OFDA	Office of U.S. Foreign Disaster Assistance (U.S. Agency for International Development)
OSHA	Occupational Safety and Health Administration (U.S. Department of Labor)
OSTP	Office of Science and Technology Policy (U.S. presidential administration)

P

PAHO	Pan American Health Organization
PAHPA	Pandemic and All Hazards Preparedness Act
PDR	Physicians' Desk Reference
PHAC	Public Health Agency of Canada
PHEP-NET	Public Health Education and Promotion Network
PHS	Public Health Service (U.S. Department of Health and Human Services)
PIO	Public information officer
PL	Public law
POD	Point of dispensing
PSA	Public service announcement
PTSD	Post-traumatic stress disorder

R

RETCO	Regional emergency transportation coordinator
RHA	Regional health administrator (U.S. Department of Health and Human Services)
RSS	Really simple syndication

S

S/CT	Office of the Coordinator of Counterterrorism (U.S. Department of State)
SAMHSA	Substance Abuse and Mental Health Services Administration (U.S. Department of Health and Human Services)
SARS	Severe acute respiratory syndrome
SMART	Specific, measurable, attainable/achievable, relevant/realistic, and time-bound
SME	Subject matter expert
SMS	Short message service
SNS	Strategic National Stockpile (U.S. Centers for Disease Control and Prevention)
SOP	Standard operating procedure

T

TREAS	U.S. Department of the Treasury
TSA	Transportation Security Administration (U.S. Department of Homeland Security)
TVA	Tennessee Valley Authority

U

UMCOR	United Methodist Committee on Relief
UN	United Nations
USACE	U.S. Army Corps of Engineers
USAMRIID	U.S. Army Medical Research Institute of Infectious Diseases
USC	United States Code
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USPHS	U.S. Public Health Service
USPS	U.S. Postal Service

W

WHO	World Health Organization
WMD	Weapon of mass destruction

CRISIS EMERGENCY RISK COMMUNICATION
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Epidemiology Terms

Epidemiology Terms

Airborne infection: A mechanism of transmission of an infectious agent by particle, dust or droplet nuclei suspended in the air.

Antibody: Protein molecule formed by exposure to a "foreign" or extraneous substance, e.g., invading microorganisms responsible for infection, or active immunization.

Antigen: A substance that is capable of inducing specific immune response. Introduction of an antigen may be by the invasion of infectious organisms, immunization, inhalation, ingestion, etc.

Association: The degree of statistical dependence between two or more events or variables. Events are said to be associated when they occur more frequently together than one would expect by chance.

Attack rate: Attack rate, or case rate, is a cumulative incident rate often used for particular groups, observed for limited periods and under special circumstances, as in an epidemic. The secondary attack rate expresses the number of cases among contacts occurring within the accepted incubation period following exposure to a primary case, in relation to the total of exposed contacts; the denominator may be restricted to susceptible contacts when determinable.

Behavioral epidemic: An epidemic originating in behavioral patterns (as opposed to invading microorganisms or physical agents).

Biological plausibility: The criterion that an observed, causal association fits previously existing biological or medical knowledge.

Carrier: A person or animal that harbors a specific infectious agent in the absence of discernible clinical disease and serves as a potential source of infection.

Case: A person in the population identified as having the particular disease, health disorder, or condition under investigation.

Case fatality rate: The proportion of persons contracting a disease who die of that disease.

Clustering: A closely grouped series of events or cases of a disease, or other health-related phenomena with well-defined distribution patterns, in relation to time or place or both.

Cohort: The component of the population born during a particular period and identified by that period so that its characteristics can be ascertained as it enters successive time and age periods.

Cohort study: The method of epidemiologic study in which subsets of a defined population can be identified who are, have been, or may or may not be exposed in different degrees in the future, to the probability of contracting a given disease.

Communicable disease: An illness due to a specific infectious agent or its toxic products that is transmitted from an infected person, animal, or reservoir to a susceptible host, either directly or indirectly.

Contact (of an infection): A person or animal that has been in physical association with an infected person or animal, or contaminated environment, allowing the opportunity to acquire the infection.

Contact, direct: A mode of infection transmission between an infected host and susceptible host.

Contact, indirect: A mode of infection transmission involving fomites or vectors.

Contact, primary: Person(s) in direct contact or associated with a communicable disease case.

Contact, secondary: Person(s) in contact or associated with a primary contact.

Contagion: The transmission of infection by direct contact, droplet spread, or contaminated fomites.

Contagious: Transmitted by contact.

Contamination: The presence of an infectious agent on a body surface; also on clothes, bedding, surgical instruments, or other inanimate articles or substances.

Death rate: A rate expressing the proportion of a population that dies of a disease.

Disease, preclinical: Disease with no signs or symptoms, because they have not yet developed.

Disease, subclinical: A condition in which disease is detectable by special tests but does not reveal itself by signs or symptoms.

Disinfection: Killing of infectious agents outside of the body by direct exposure to chemical or physical

Dose response relationship: A relationship in which a change in amount, intensity, or duration of exposure is associated with a change—either an increase or decrease in risk.

Epidemic: The occurrence in a community or region of cases of an illness or other health-related events clearly in excess of normal expectancy.

Epidemiologist: An investigator who studies the occurrence of disease or other health-related condition or events in a defined population. Also known as a disease detective.

Epidemiology: The study of the distribution and determinants of health-related states and events in populations, and the application of this study to the control of health problems.

Epizootic: An outbreak (epidemic) of disease in an animal population (often with the implication that it may also affect human population).

Eradication (of disease): Termination of all transmission of infection by extermination of the infectious agent through surveillance and containment.

False negative: Negative test result in a subject who possesses the attribute for which the test is conducted.

False positive: Positive test result in a subject who does not possess the attribute for which the test is conducted.

Fatality rate: The death rate observed in a designated series of persons affected by a simultaneous event.

Fomites: Articles that convey infection to others because they have been contaminated by pathogenic organisms. Examples include dishes, door handles, and toys.

Herd immunity: The immunity of a group or community. The resistance of a group to invasion and spread of an infectious agent, based on the resistance to infection of a high proportion of individual members of the group.

Host: A person or other living animal, including birds and arthropods, that affords subsistence to an infectious agent under natural conditions.

Household interview study: Collection of information from a sample of a civilian noninstitutionalized population by trained interviewers who go to the dwellings of the persons selected for interview.

Immunization: Protection of susceptible individuals from communicable disease by administration of a living modified agent (as in measles), a suspension of killed organisms (as in whooping cough), or an inactivated toxin (as in tetanus).

Incidence: The number of instances of illness during a given period in a specified population.

Incident rate: A measure of the rate at which new events occur in the population.

Incubation period: The time interval between invasion by an infectious agent and appearance of the first sign or symptom of the disease in question.

Index case: The first case in a family or other defined group to come to the attention of the investigator.

Infectiousness: A characteristic of the disease that concerns the relative ease with which it is transmitted to other hosts.

Monitoring: The performance and analysis of routine measurements, aimed at detecting changes in the environment or health status of populations.

Morbidity: Illness

Norm: Can be defined as what is usual or what is desirable.

Nosocomial infection: An infection originating in a medical facility.

Notifiable disease: A disease that, by statutory requirements, must be reported to the public health authority.

Numerator: The upper portion of a fraction used to calculate a rate or a ratio.

Occurrence: The frequency of a disease or other attribute or event in a population.

Outcomes: All of the possible results that may stem from exposure to a causal factor, or from preventive or treatment interventions.

Outliers: Observations differing widely from the rest of the data, suggesting that these values come from a different population.

Pandemic: An epidemic occurring over a very wide area and usually affecting a large proportion of the population.

Parasite: An animal or vegetable organism that lives on or in another and derives its nourishment therefrom.

Pathogen: Organism capable of causing disease.

Pathogenicity: The property of an organism that determines the extent to which overt disease is produced in an infected population, or the power of an organism to produce disease.

Population-based: Pertaining to a general population defined by geopolitical boundaries.

Prevalence: The number of instances of a given disease or other condition in a given population at a designated time.

Prevention: The goals of public health and medicine are to promote health, to preserve health, to restore health when it is impaired, and to minimize suffering and distress.

Primary case: The individual who introduces the disease into the family or group under study.

Quantitative data: Data in numerical quantities, such as continuous measurements or counts.

Quarantine: The limitation of freedom of movement of well persons or animals exposed to a communicable disease, for a period of time not longer than the longest usual incubation period of the disease.

Random: Occurs by chance.

Rate: Ratio whose essential characteristic is that time is an element of the denominator and in which there is a distinct relationship between numerator and denominator.

Relative risk: The ratio of the risk of disease or death among the exposed to the risk among the unexposed.

Reservoir: The natural habitat of the infectious agent.

Risk: A probability that an event will occur.

Risk factor: An attribute of exposure that is associated with an increased probability of a specified outcome, such as the occurrence of a disease.

Sample: A selected subset of a population.

Screening: The use of tests or examinations to identify unrecognized disease.

Seroepidemiology: Epidemiologic study or activity based on the detection on serological testing of characteristic change in the serum level of specific antibodies.

Statistical significance: Statistical methods allow an estimate to be made of the probability for the observed or greater degree of association between independent and dependent variables under the null hypothesis.

Surveillance: Ongoing scrutiny; generally, using methods distinguished by their practice—ability, uniformity, and, frequently, their rabidity, rather than by complete accuracy.

Surveillance of disease: The continuing scrutiny of all aspects of occurrence and spread of a disease that is pertinent to initiate investigative or control measures.

Survey: An investigation in which information is systematically collected not using the experimental method.

Transmission of infection: Transmission of infectious agents. Any mechanism by which an infectious agent is spread through the environment or to another person.

Validity: Expression of the degree to which a measurement measures what it purports to measure

Variable: Any quantity that varies. Any attribute or event that can have different values.

Virulence: The degree of pathogenicity.

Zoonosis: An infection or infectious disease transmissible under natural conditions from vertebrate animals to man.

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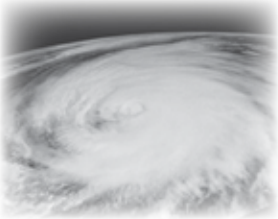

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For more information please contact

Centers for Disease Control and Prevention
1600 Clifton Road NE, Atlanta, GA 30333
Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov
Web: www.atsdr.cdc.gov

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