CHAPTER 9

Linking Health Communication with Risk Communication and Crisis Communication

Learning Objectives

- Define and distinguish risk and crisis communication
- Understand relationship between perceptions of hazard and outrage
- Acknowledge the goals of risk communication
- Identify necessary information components of risk communication
- Review process of developing effective risk messages
- List challenges to risk communication and ways to overcome these challenges
- Outline messaging components for consideration during a crisis
- Review guidelines for effective crisis communication
- Suggest communication strategies to manage various emotions during crises
- Provide best practices for risk communication and crisis communication
- Explain the importance of integrating students' voices into service-learning projects

Chapter Preview

In this chapter, we compare and contrast risk communication and crisis communication. To avoid continued misunderstanding and misuse, we begin by pointing out some key distinguishing features of risk communication and crisis communication. Throughout the chapter, then, we thoroughly define each of these concepts and offer several examples to further illustrate and highlight the distinguishing features. We also provide strategies and best practices for engaging in either risk communication or crisis communication. We conclude the chapter with a service-learning application that emphasizes the importance of integrating students' voices while designing risk messages for a community campaign.

The Motorcycle Safety at Purdue campaign website You.com—opens with one of five different photos and facts associated with motorcycle safety. In addition to providing an attention-getter for visitors to the website, these are examples of risk communication because the images and statistics convey the risks associated with riding a motorcycle.

Distinguishing Risk Communication and Crisis Communication

One of the key roles the media and health campaigns play in imparting health-related information is communicating risk and crisis information to the public. Generally, "Risk communication contains rather static, persuasively-oriented messages regarding known probabilities of negative consequences and how those consequences may be reduced. . . . Crisis communication contains more dynamic primarily informative messages about the current state of a particular event (or set of events) including the cause, duration, magnitude, and immediacy of that event" (Dutta-Bergman & Mattson, 2006). Often the distinction between risk and crisis communication is misunderstood, and either crisis events are treated from a measured risk communication perspective or ongoing risks are addressed using strategies appropriate for crises.

Risk Communication

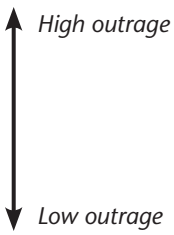
According to the National Research Council (1989), *risk communication* is the "interactive process of the exchange of information and opinion among individuals, groups, and institutions that involves multiple messages about the nature of risk and other messages not strictly about risk, that express concerns, opinions, or reaction to risk messages or to legal and institutional arrangements for risk management" (p. 5).

At first glance this definition of risk communication can be somewhat confusing but the essential ideas in this definition are that risk communication is any exchange of information about risk. So the question is, what is a risk? A risk is anything that can be considered potentially harmful. Therefore, risk communication can be about the risk, reactions to the risk, or measures in place to reduce or prepare for the risk. Risk communication can be anything from warning labels on a package of cigarettes cautioning users that smoking can lead to lung cancer to an article in a women's magazine about the risks of having unprotected sex.

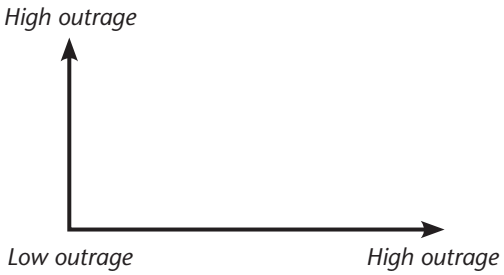
Perceptions of Hazard and Outrage

As you can see from the previous examples, there are many kinds and levels of risk, which lead to different types of risk communication. One way to classify a risk is to compare the level of hazard with the level of outrage. The *level of hazard* is equivalent to the amount of damage a risk may potentially cause. A high-hazard risk would be a risk that could potentially cause a lot of harm such as serious injury or death. For example, riding a motorcycle is considered a high-hazard risk because compared with being a passenger in a car, a motorcyclist is about 39 times more likely to die in a traffic crash (National Highway Transportation Safety Administration, 2010). A low-hazard risk would be one that would most likely cause minimal damage such as mild pain. For example, riding a bicycle on a designated bike trail while wearing a helmet would be a low-hazard risk because you are unlikely to crash, since the trail is designed and maintained for safe riding. If you crash, you're likely to sustain only mild discomfort. We can think of risk as being on a continuum from low hazard to high hazard risk.

The *level of outrage* is the amount of concern that the public has about a risk. When there is a high level of outrage the public is greatly concerned about the risk. For example, in the spring of 2009 the public in many countries across the world became greatly concerned about the risk of contracting the H1N1 virus—also known as "swine flu"—after 100 reported deaths in Mexico and many more reported illnesses due to the virus in several countries across the world. This high level of outrage prompted travel restrictions for nonessential travel to Mexico by citizens from countries such as the United States, Canada, and Spain (National Public Radio, 2009). Like risk, outrage can be thought of on a continuum from low outrage to high outrage.



Taken together, we can create a graph on which we can plot each risk.



The level of outrage does not always correspond to the level of hazard. In other words, there may be a very high level of outrage about a relatively minor risk or there may be minimal outrage over a very relevant and high risk. Take for example the risk of dying in an airplane crash. The odds of dying in a plane crash are roughly 8 million to 1, which is a very low risk. Despite the low risk, there are many who have a high level of outrage about flying, including extreme fear. Now take the risk of dying in a car accident, which is 1 in 83. These are much greater odds than those of dying in a plane crash, but there are few who express any outrage over driving or riding in a car (National Safety Council, 2005).

Factors that Influence Outrage

There are several factors that influence the public's sense of outrage, including the following:

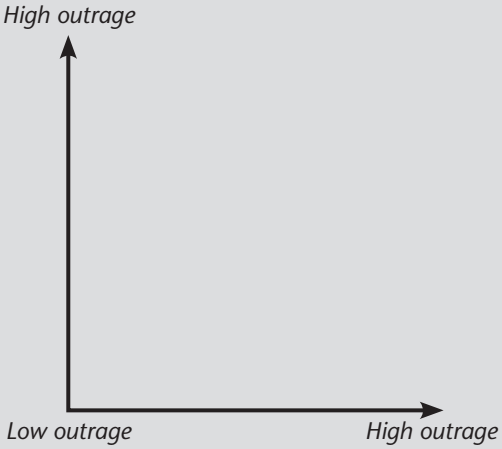
- Coercive versus voluntary nature of risk
- Fairness
- Dread
- Organization imposing the risk
- Catastrophic versus chronic nature of risk

Individuals tend to feel more outrage when a risk is imposed on them or they are *coerced* into accepting a risk than when they *voluntarily* choose to accept a risk. For example, those who opt to use artificial tanning beds rarely feel outrage about the stated risk of developing skin cancer. Other risks, however, are not undertaken voluntarily and instead are imposed upon people by the government or other organizations. For example, the risk of contracting food poisoning from eating tainted food is not a voluntary risk and instead people may unknowingly ingest food products containing salmonella or *Escherichia coli* bacteria that entered the food at a packaging plant. Therefore, a high level of public outrage often accompanies outbreaks of food contamination.

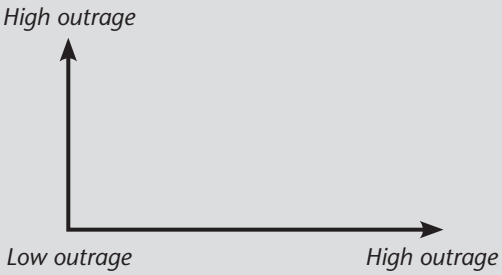
A second factor that determines level of outrage about a risk is its *fairness*. In other words, people want to know whether a risk equally affects everyone or a certain population is at greater risk. For example, when a chemical factory is built in a low-income neighborhood within a town, those residents near the chemical

Health Communication Nexus Interlude 9.1

To make perceptions of risk more relevant to you, take a few minutes to plot the two examples of risks—dying in an airplane crash versus dying in a car accident—provided in the previous paragraph. Using the information provided and your own feelings about the risks, first plot the risk of dying in an airplane crash along both the hazard and outrage continuums.



Next plot the risk of dying in a car accident along both the hazard and outrage continuums.



Where your points meet from each continuum within the graph represents your perception of that risk.

Compare your perceptions of your risk of dying in an airplane crash with your perceptions of your risk of dying in a car crash. Based on your comparison, answer the following questions.

- What does the difference between these perceptions tell you about yourself and your perception of risk? Perhaps you realize risks exist but you do not consider yourself very susceptible to them.
- Do you think your perceptions of risk may change over time? Why or why not?

factory are more at risk for harmful effects due to chemical exposure than those living in more well-off areas of town. This suggests an unfair distribution of risk among residents in the low-income area.

Another factor that determines level of outrage about a risk is dread. *Dread* refers to how much people fear or want to avoid encountering a risk and its consequences. The higher the level of dread, the more outrage the public will generally have about a risk. For example, the idea of contracting Ebola, a flesh eating virus, most likely would evoke a lot of dread in the public and therefore elicit a high level of outrage.

A fourth factor that determines level of outrage about a risk is the *organization imposing the risk*. Some people have an inherent mistrust of certain organizations such as the government or big corporations and therefore will experience a high level of outrage when one of these entities is responsible for creating a risk. In 2007, for example, it was discovered that many toys imported from China contained lead. In addition to the concern over the threat to the millions of children who could be ingesting the lead, the public was highly outraged by the lack of regulations the Chinese government imposed on its toy industry (Centers for Disease Control and Prevention, 2007; World Net Daily, 2007).

A fifth factor in determining level of outrage about a risk is whether the risk leads to a *catastrophic or a chronic problem*. This is why people become very outraged over relatively low probability risks such as dying in an airplane crash or developing a brain tumor. Although the occurrence of these health threats is very rare, the outcomes are catastrophic and often result in death. On the other hand, people regularly expose themselves to the much greater risk of heart disease by consuming trans fats, which are known to clog arteries. However, the consequences of exposure to trans fats develop over time, creating a chronic health risk which because of its slow progression tends to instill less outrage.

Goals of Risk Communication

Risk communication and its goals vary depending on the level of risk and the level of outrage perceived by the target audience. Often, risk communication efforts are geared toward informing the public about a risk or trying to get individuals to be concerned about a risk. Think about some of the health campaigns that you have encountered on television or the Internet or that may be occurring on your campus. For example, if you've seen an advertisement promoting condom usage or if you have ever been in a physician's waiting room and read a pamphlet about decreasing your risk for heart disease or the dangers of drinking and driving, you have been involved in risk communication. In cases such as these, often the goal of the risk communication is to increase the outrage people feel about a risk. For example, an expressed goal of Mothers Against Drunk Drivers (MADD; www.madd.org) is to increase the outrage people feel about drinking and driving. Attempts to increase outrage sometimes employ drastic measures. For example, those promoting the use of sober drivers may stage a mock car crash at a high school or college to illustrate just how deadly drinking and driving can be.

Sometimes, the goal of risk communication is to pacify the audience or lower its sense of outrage. This is especially true in times of panic or when the public is highly outraged over a fairly low or controllable risk. In the 1980s, for example, HIV/AIDS was a relatively new and misunderstood disease. Often people had false information about how the disease was spread and believed that having any sort of contact with an infected individual such as shaking hands could lead to transmission of the disease. Consequently, one of the goals of risk communication efforts regarding HIV/AIDS was to correct the misconceptions so that the public would understand the actual risk behaviors they needed to avoid, in this case bodily fluids, and to ease fears about interacting with those who were infected.

Information Components of Risk Communication

No matter what the goal of risk communication, there is basic information that all risk communication should include. The National Research Council (1989) advises that complete risk communication should contain the following components:

- The nature of the risk
- Benefits of the hazard
- Available alternatives
- Uncertainty about risks or benefits
- How to manage risk

One component of the list that might initially strike you as odd is including information on the benefits of the hazard. A health issue or related behavior may be risky, but also it might include benefits. Risk communication should inform you about both the benefits and risks of that health issue or related behavior. For example, think of any medication you take or have taken. In addition to the benefits for which you are taking or have taken the medication there is an accompanying list of risks. To make an informed decision about taking the medication you need to be aware of both the benefits and risks and any alternatives that may allow you to avoid those risks. Risk communication also should acknowledge any uncertainty or unknowns about the risks or benefits. Additionally, the audience needs information about how to manage the risk meaning both how to avoid the risk and how to handle the risk once it has been encountered.

Steps to Developing Effective Risk Messages

Witte, Meyer, and Martell (2001) offer a three-step guide to developing effective health risk messages which is based on the Extended Parallel Process Model (EPPM) presented in Chapter 3, "Linking Health Communication with Health Communication Theories." The three steps to the development of effective health risk messages include the following:

- Step 1: Determine goals and objectives of the health risk message
  - Questions for message designers
    - What is the threat you are trying to prevent?

        - What is the specific recommended response to avert the threat?
        - What is the specific target audience?
    - Step 2: Ask target audience members questions to determine the following:
        - Salient beliefs
        - Recommended responses
        - Salient referents meaning relevant individuals/groups who have influence
        - Communication source/channel preferences
        - Stage of readiness to change behavior (from the Stages of Change Model presented in Chapter 7, "Linking Health Communication to Health Campaign Theories")
    - Step 3: Develop health risk message(s)
        - Develop prototypical characters of target audience
        - List preferred source(s), channel(s), and message type(s)
        - Identify stage of change of target audience
        - Chart beliefs and referents (from Step 2) to decide if need to reinforce, refute, or introduce new beliefs
        - Develop message(s) using prototypical audience member and other factors above

You may have noticed that this step-by-step process to the development of effective risk messages is very similar to the messaging process described as part of the health campaign model presented in Chapter 8, "Linking Health Communication with Health Campaign Practice." Although this approach is based on theory and target audience–driven characteristics, you may still encounter communication challenges to effective risk messages. However, there are ways to overcome these challenges.

Communication Challenges to Effective Risk Communication

Communicating risk to the public in an effective way can be very challenging. Some of the common communication challenges that need to be recognized and addressed when trying to help an audience understand a risk include the following:

- Using technical language
- Unequal comparison of risks
- Expressing risks in unfamiliar magnitudes
- Contradictory messages from variety of sources

When experts or those who are familiar with a risk talk about that risk, it may be second nature to use *technical language* or jargon to describe it. However, when technical language is unfamiliar to an audience, it can alienate the audience and prevent them from understanding the message and the risk. To illustrate the limitations of technical language, please complete the following Health Communication Nexus Interlude.

Health Communication Nexus Interlude 9.2

To complete this Health Communication Nexus Interlude, please read the following statement describing a health risk to an organization's employees.

***"Employees who fit into the following categories should be aware of an increased susceptibility to contracting methicillin-resistant* Staphylococcus aureus:**

- Use invasive devises
- Have been treated with fluoroquinolones (ciprofloxacin, ofloxacin or levofloxacin) or cephalosporin
- Weakened immune system
- Have been a resident at a health-related facility for a duration of fourteen or more days"

As you read the statement again, jot down in your notebook what you think this message means and answer the following questions:

- Was this message difficult to interpret?
- Do you have any questions about what terms or phrases in the statement mean?
- Given the meaning of the message that you jotted down, do you think it was an informative and helpful message?

Keep this risk communication example and your reactions to it in mind as we continue to discuss effective risk communication.

You probably had some difficulty understanding the risk message in Health Communication Nexus Interlude 9.2 unless you have an extensive background in medicine and pharmacology. Perhaps you did not even understand what risk the message was addressing. Now let's consider the same risk communication message using common rather than technical language,

"Employees who fit into the following categories should be aware that they are more likely to contract MRSA, a drug-resistant staph infection:

- Individuals who are on dialysis or have a catheter or a feeding tube
- Individuals who have recently been on an antibiotic
- Individuals who have a weakened immune system due to HIV/AIDS or other immune-compromising condition
- Individuals who have had a recent hospital stay over two weeks long"

Was this revised message more understandable? Incorporating more familiar language and fewer technical terms makes the message more accessible to the audience and easier to understand and act upon.

Another common problem in risk communication is making an *unequal comparison of risks*. This occurs when a serious risk is compared to a more common, less serious risk. For example, one might compare the risk of contracting Bird Flu to that of catching a bad cold. Although both are illnesses, Bird Flu has more severe consequences, including the possibility of death. In making an unequal comparison of risk, the seriousness of a risk often is diminished or even trivialized.

When discussing risk, people often want to know what their chances are of encountering the risk or what their chances are of being harmed by the risk. The most common way to express a risk is to use percentages such as a .5% chance or numbers such as a 1 in 80,000 chance. However, avoid *expressing risks in unfamiliar magnitudes* that may be too large or too abstract for the audience to comprehend. When communicating risk, the challenge is to present the numbers in a way the audience can easily understand. Instead of stating that there is a 1 in 80,000 chance of contracting a rare cancer you could ask the audience to picture a college football stadium with the seats full with fans and then explain that one individual in those stadium seats would have this rare form of cancer.

When communicating risk, we must always be aware that individuals live in a media-rich and message-rich society that may result in c*ontradictory messages from a variety sources*. This means that individuals rarely use one source for information, and the different information sources they use may be communicating different and conflicting messages. For example, consider the issue of vaccines and autism. Government and medical sources, including the Centers for Disease Control and Prevention (CDC) and the American Pediatric Association, argue there is no link between vaccines and autism. However, there are several other sources that dispute this claim and believe there is a link between vaccines and autism. Many parents of children with autism, for instance, insist that their children were developing normally prior to receiving their vaccinations.

When physicians and public health officials are trying to ensure that all children are vaccinated properly to protect the children and others against severe illnesses such as rubella or measles, they must try to allay parents' fears that the vaccines will harm rather than protect their children. It can be difficult to convince parents that vaccines present minor health risks to children when other sources are informing parents that there are serious health risks associated with vaccinations. Parents are then faced with the task of sifting through the contradictory information to make decisions.

To address the challenge of contradictory information in risk communication, it is important for the source of the information to have high credibility in order to establish trust with the audience. Incorporating comprehensible evidence such as facts and examples to support claims about the magnitude and likelihood of a risk also will strengthen the message and increase its acceptability.

ETHICAL DILEMMA ◆ What Would You Do?

Beginning in the late 1990s parents became concerned over a potential link between childhood vaccines and the development of autism. Despite repeated government studies and reports denying a link, parents have continued to worry about the risk. The American Academy of Pediatricians has taken a firm stance on the issue and clearly recommends vaccinations for all children to prevent the reoccurrence of disease such as measles and mumps. Some parents decide not to vaccinate their children, believing that the risk for autism outweighs the risk for illness. Some pediatricians have begun to refuse to see patients who do not vaccinate, as they see these children as potential risks to other children seen within their medical practice.

- Do parents have the right not to vaccinate their children?
- Do pediatricians have the right to refuse to see children who are not vaccinated?
- If you were a pediatrician, would you refuse to see children who were not vaccinated?
- On which ethical orientation presented in Chapter 2, "Linking Health Communication with Ethics," do you base your answers to these questions?

Now that we have a better understanding of risk communication, we'll discuss crisis communication and explain how it is different yet related to the concept of risk communication.

Crisis Communication

Crisis communication is a special case of risk communication that occurs when both the hazard and the outrage regarding that hazard are high. When this situation happens, information needs to be presented to the public to both calm fears the public may have as well as to provide information on how the threat of the risk can be minimized. Examples of a crisis include a disease outbreak, a national disaster such as a flood or hurricane, or a product recall.

Components of Crisis Communication

When dealing with a crisis, several components of crisis communication need to be taken into account, including the following:

- ◆ Information content
- ◆ Media logistics
- ◆ Audience assessment
- ◆ Audience involvement
- ◆ Meta-messages
- ◆ Organizational issues

As you can surmise from this list, crisis communication involves much more than simply providing information to the public. Accurate *information content* that the public can understand is a vital component of any crisis communication effort. In addition, designers of crisis messages must take into account several other factors as they plan and deliver crisis messages.

A key concern for effective crisis communication efforts is *media logistics*, which refers to how the messages will be disseminated through the media. Crisis communication planners must select relevant media outlets such as television, the Internet, and radio and determine how to get the message to those outlets. There are a variety of options for message delivery to media outlets, such as issuing a statement or press release, scheduling a press conference, or buying media time. In times of crisis, media outlets must be selected that will deliver the messages to the intended audiences as quickly as possible.

When planning crisis messages, an *audience assessment* must be conducted. This analysis involves determining what the audience knows and thinks about the health issue. The messages need to address the audience's needs. Imagine that a city is faced with an outbreak of the measles, for example, and the audience assessment determines that the public is unsure about the specifics of who is susceptible to contracting measles and how measles are spread. Based on this audience assessment, crisis messages must contain basic explanations of the disease, how it is spread, and what precautions the public should take. Additionally, message planners must determine how they will get feedback from the audience once the initial crisis messages are sent to determine *audience involvement*. This feedback is essential to gauge if messages are effective and to determine how subsequent messages need to be adapted to meet the audience's changing needs.

In addition to audience assessment, selecting the content of the messages, and attending to media logistics, crisis communication specialists must be aware of and manage meta-messages. *Meta-messages* refer to the nonverbal elements of the message such as posture, tone, and facial expressions as well as the location of the message and how many people are available to deliver the message. As an example, imagine that an employee at a local fast-food restaurant tested positive for hepatitis A, a very contagious disease. The public would need to be alerted about the situation and be assured that the situation is under control. Specific instructions would need to be given to those who have eaten at the restaurant within the past 48 hours. In addition to providing health information, public health officials would want to reassure the public that it is now safe to eat at this restaurant. To reinforce this message, the restaurant's communications director could address the media from the restaurant parking lot with a large soda from the restaurant in her hand. The actions of the organization's representatives would be meant to add credibility and emphasis to her message that it is safe to eat at the restaurant.

A related concern would be to address any internal *organizational issues*. Depending on the situation, an organization may simultaneously be dealing with major internal issues that could hamper crisis communication efforts. Organizations need to recognize these internal issues and conflicts in order to present the most positive and cohesive message about the crisis. Returning to our hepatitis A example, in addition to the public health department and the restaurant releasing pertinent information to the public, the restaurant would want to engage in internal crisis communication as well. In this case, the restaurant would want to examine its procedures and policies for maintaining employee cleanliness as well as the

organization's culpability in the outbreak. There also may be privacy and/or legal issues to protect the infected employee and the organization that need careful consideration.

Waiting until a crisis strikes to determine a crisis communication plan is too late. Because there is much that can be considered in planning for a crisis and in determining how to balance crisis communication and communication about reasonable risks, a set of guidelines for effective risk and crisis communication is presented in the next section.

Guidelines for Effective Crisis Communication

Each crisis situation is unique and calls for distinct communication, but there are some basic guidelines or tips for providing the best possible crisis communication. These guidelines include the following:

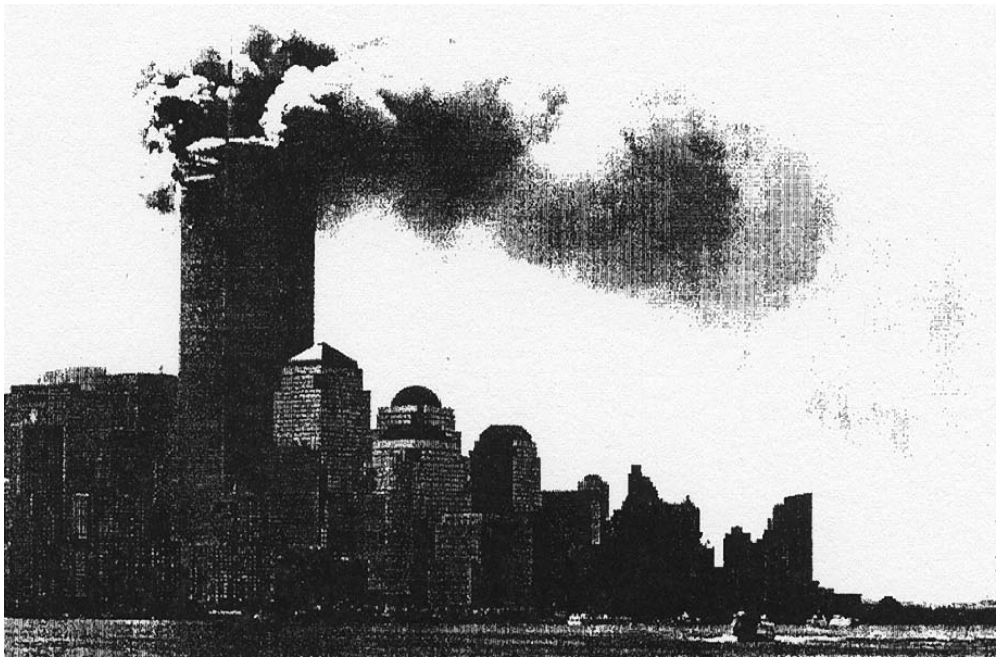
- Legitimate the public's fears
- Acknowledge any uncertainty
- Establish the spokesperson's humanity
- Offer specific actions

First, the public health agency and/or the organization involved in the crisis should *legitimate the public's fears*, even if those fears appear to be unfounded or overreactions. For example, if individuals fear they may develop brain cancer from using a cell phone, this fear should be acknowledged, but then evidence can be used to explain why this fear may be unrealistic. However, it is important not to overly reassure the audience if there is at least some risk involved. Many aspects of life are associated with some reasonable level of risk, even if it is minor, and individuals and the public have the right to know about these risks in order to make informed decisions.

Similarly, it is important to *acknowledge any uncertainty* about the crisis. In a crisis situation, there may be many unknowns, which should not be hidden from the public but instead be openly acknowledged. For example, in 2001, shortly after the 9-11 attacks on the World Trade Center in New York and on the Pentagon in Washington DC, along with the crash of Flight 93 in Pennsylvania, letters containing anthrax were mailed to a few television stations and government offices. Anthrax is a deadly bacterium. At least 22 people became seriously ill from exposure to anthrax, and five were killed. Early on it was unknown who or what organization was mailing the letters and where the letters were coming from. Although initially hesitant to do so, federal public health and law enforcement officials had to admit to the many unknowns surrounding the case. This was a very scary prospect for the public across the United States and many began to fear opening their mail. Eventually, the tainted letters stopped arriving in mailrooms and mailboxes, the fear subsided, and the crisis was averted.

In communicating during a crisis situation, it is important to establish the spokesperson's humanity. If you were designated as the official spokesperson for the department of health or for your company in a crisis, the public will look to

World Trade Center Towers after attack by airplanes in September 11, 2001



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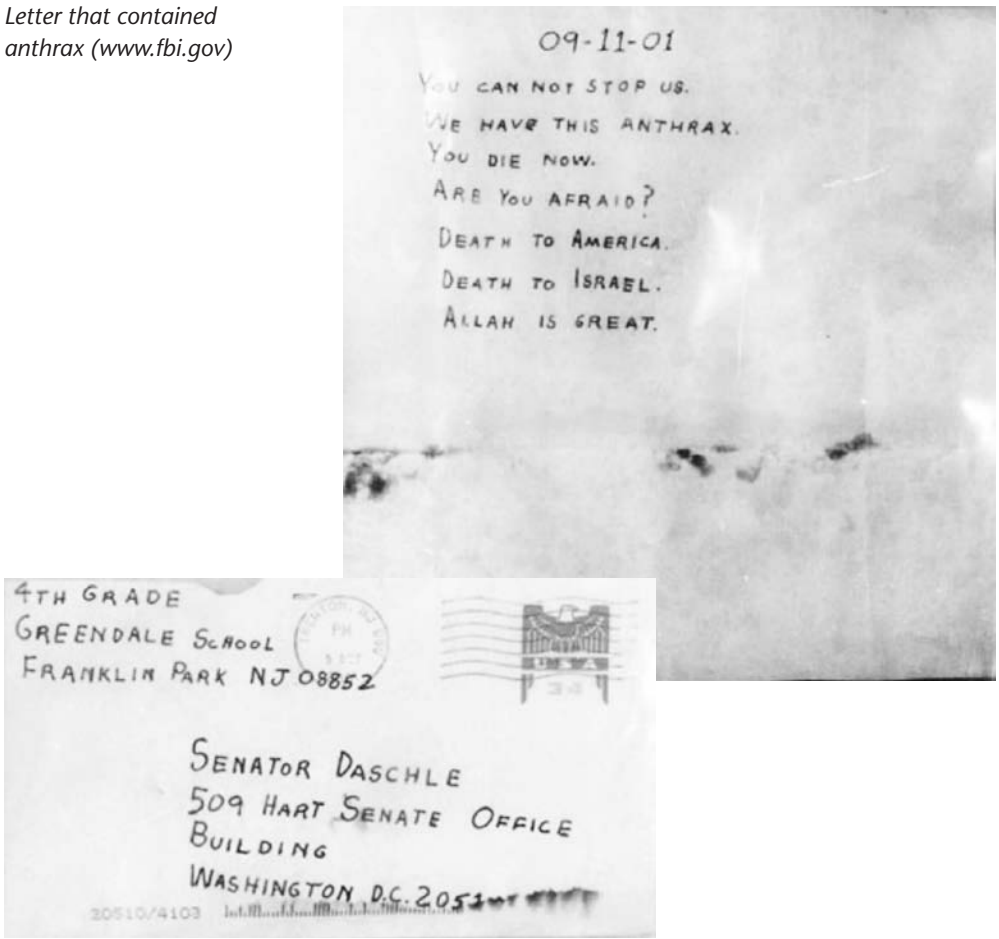
Letter that contained anthrax (www.fbi.gov)



you not only as a source of information but possibly a source of comfort. *Establishing humanity* means showing compassion and concern for the situation and those affected by it. At times it is appropriate to be emotional and show sadness, although you must always maintain your composure in order to maintain the audience's trust in your abilities to handle the situation. On the other hand, a lack of human emotion in a crisis event could come across as cold and unfeeling. For example, when giving an update on the status of raging wildfires, a fire chief should show sympathy and regret when reporting on how many homes have been engulfed by the flames. New York City mayor Rudolph Giuliani was praised in the aftermath of 9-11 for his ability to show his strength as well as his grief and sadness as he addressed the public.

Because people are looking to a spokesperson as a source of information, it is important to *offer specific actions* that people should take. Simply telling people not to worry or to be on alert will not be effective in keeping people calm or helping them cope with the crisis. In the anthrax crisis, for example, government officials had to give the public specific steps to take to protect themselves against potential anthrax exposure. This included giving a precise description of anthrax and a list of steps to take if someone encountered a potentially threatening package or letter. These steps included covering the suspicious powder found in the letter or package to avoid stirring it, leaving the area immediately, and contacting the police.

Health risks and health crises can be some of the most difficult and scary issues and events people encounter during their lives, and dealing with the people's emotions associated with these health issues and events can be very challenging—however, preparation is essential. In the next section we discuss emotion management in risk communication and crisis communication.

Emotion Management in Risk Communication and Crisis Communication

One of the challenges in both risk communication and crisis communication is dealing with the wide variety or emotions that risk or crisis can arouse. Sometimes the goal is to arouse a desired emotion, whereas at other times the goal is to minimize an unwanted emotion. Before further discussing emotion management, please complete the following Health Communication Nexus Interlude.

Health Communication Nexus Interlude 9.3

Begin this Health Communication Nexus Interlude by taking a few moments to read the following scenario.

Over the past month there have been an increasing number of reports of attacks and break-ins both on and around the college campus in your

continued

community. Two males wearing dark ski masks have been breaking into dorm rooms as well as off-campus residences. Several females reportedly have been sexually assaulted during these break-ins and valuables and cash have been taken. University officials were aware of the reports but did not issue a public statement or warning until recently, citing that public safety officials were unsure if the attacks were related and there was a desire to protect the privacy of those involved. It is believed that the men are still in the area of the campus, and the police are searching for any possible clues as to their identity and whereabouts.

Now take a few more moments to jot down in your notebook any emotions you would feel if this situation were occurring at your school or in your community right now. Keep these emotions in mind as we further discuss the link between the public's emotions and risk and crisis communication.

Following is a list of some of the most common emotions that may need to be addressed and managed by public health and safety officials during risk communication and crisis communication:

- Apathy
- Fear
- Anger
- Panic
- Misery
- Depression

These emotions also may apply to the scenario in the preceding Health Communication Nexus Interlude 9.3. Did you include any of these emotions on your list in response to the scenario?

Apathy can be very frustrating to those who are trying to warn members of the public about a potential risk or an impending danger. Members of the public who are *apathetic* do not care or are indifferent about the risk, and therefore are unmotivated to take protective actions. For example, those who try to communicate risk messages regarding potential natural disasters such as hurricanes often encounter citizens who are apathetic to the potential risks. These people may have experienced many false alarms of serious hurricanes that were predicted but never hit land. Others might believe that nature will take its course so they might as well just sit and wait. When officials are trying to evacuate a town, it is difficult to convince apathetic audience members to leave. Apathy also can be seen in those who do not feel as if the risk is personally relevant or who believe they are immune to the risk. In the scenario illustrated in Health Communication Nexus Interlude 9.3, some students may feel they are immune to the risk of being attacked by thieves because they do not fit the profile of those who have been attacked previously.

When confronting an apathetic audience, a risk or crisis communication specialist's goal is to arouse feelings of concern in the audience. To do this, messages

must show why a threat is relevant and how ignoring the threat could bring about personal harm to an individual or harm to those an individual knows. In the case of the threat of a natural disaster, for example, audience members could be graphically reminded of past disasters where residents, like themselves, did not evacuate and were seriously endangered or harmed. More specifically, near where the authors of this textbook live in Lafayette, Indiana, the Tippecanoe River flooded twice in 2008, causing serious threat to residents' safety and serious damage to property including the complete loss of many homes. In particular, several residents' safety was compromised when they decided to wait out the floods rather than follow official emergency management agency evacuation orders and check into a Red Cross shelter. When the waters rose to a dangerous level after a dam was breached, many residents had to be rescued because they could not escape the flood. In 2009, heavy rains over several days again caused flooding in the same area of the Tippecanoe River but admittedly local officials were better prepared given their crisis experience from the previous year. In addition, media outlets including the local newspaper, the *Journal & Courier,* warned residents about the eminent threat and used recent history to support their warnings to evacuate (Malik, 2009; Scott, 2009a, 2009b). As the newspaper headlines and corresponding stories illustrate, the media explained why the threat of flooding was relevant and reminded residents about the unnecessary risk and harm that was caused the previous year when residents ignored warnings and stayed with their homes. This time almost all the residents affected heeded the warnings and left their homes before the situation turned serious and remained away until officials deemed it was safe to return.

At the opposite end of the spectrum from apathy are emotions such as fear. *Fear* is an emotion of distress aroused by the perception or actual threat of impending danger. From the perspective of those developing and delivering risk or crisis

Ethics Touchstone

Please tease out the three foundational concepts of values, morals, and ethics that we used to define ethics in Chapter 2, "Linking Health Communication with Ethics," after answering the following questions:

Do you think choosing to stay in your home is an ethical response to crisis messages in the media such as flood evacuation warnings, hurricane evacuation orders, and wildfire evacuation orders? Why or why not?

Would you stay or leave your home if there were an evacuation warning or order? Why?

What would it take to change your mind in either direction?

Jot down your responses to these questions in your notebook. Next, think about and write down a few notes in your notebook about how your responses to these questions are based on the following three concepts:

- Your values
- Your morals
- Your ethics

messages, fear can be either a desirable or undesirable reaction by an individual or the public. In some cases fear of a risk is desirable because being afraid can motivate individuals to take action. Consider, for example, the risk of skin cancer. Those who have a fear of skin cancer and skin damage caused by the sun will be more likely to take protective actions such as wearing sunscreen and a hat to protect their skin from exposure to the sun. However, when an audience is apathetic about skin cancer, the goal of communication efforts may be to raise fear levels to promote action.

There are times, though, when too much fear can have a negative influence. Instead of motivating an individual to address the risk, fear can be paralyzing. For example, in response to fear-inducing messages about skin cancer, individuals experiencing too much fear about the issue may stop leaving the house during daylight hours or obsessively check their skin for signs of irregular moles. As another example, shortly after the terrorist attacks on 9-11, many Americans were paralyzed with fear about experiencing another terrorist attack and avoided traveling and being in large crowded places. In response, several government officials including the then mayor of New York City, Rudolf Giuliani, encouraged members of the public through press conferences and interviews with the media to rise above their fears and continue leading their normal lives. One of his central messages was that giving in to the fear was allowing the terrorists to win. Increased security at airports and public places also helped to alleviate some of the fear and allowed the country to move forward.

Sometimes a crisis will invoke anger in the audience. *Anger* refers to strong feelings of displeasure or hostility that are generated by a real or supposed wrongdoing. Oftentimes this anger is directed toward the source of the crisis or at agencies that are handling the crisis. Anger can be useful in motivating an audience to try and bring about change in a situation, such as demanding more regulation of food products to reduce contamination; but too much anger or fear resulting from that anger also can distract an audience from dealing with the risk or crisis in a timely manner.

For example, in the aftermath of Hurricane Katrina in 2006, people were extremely angry at the government's response and handling of relief efforts. Although this anger may have influenced the government to reconsider aspects of the response, it also consumed time and energy and may have caused mistrust of those trying to aid hurricane victims. In particular, displaced residents as well as those around the country who saw the situation being mishandled became angry with the Federal Emergency Management Agency (FEMA) and its director Michael Brown. News coverage was dominated by criticisms of the agency and attention was focused on what was being done wrong rather than developing a plan to fix the situation. Displaced residents angry with the way they were being treated, including their difficulties accessing social services, were impatient and often unwilling to work cooperatively with local FEMA agents.

When emotions such as anger and fear become too overwhelming, they can turn into panic. *Panic* occurs when an individual or group is faced with an overwhelming fear that leads to hysterical or irrational behavior. Panic tends to

Gas masks are not very effective in protecting against a mass bioterrorist attack, although many members of the public acquired them in response to the anthrax crisis of 2001.

spread quickly. Mass panic over a crisis can lead to major unrest and cause people to take actions that may be ineffective. Earlier in this chapter we discussed that much was unknown during the anthrax crisis of 2001. The many unknowns led to a high level of fear in the public and in some cases caused panic. Early on in the crisis, some members of the public rushed to purchase gas masks and people were encouraged to seal windows and vents with duct tape to protect against being exposed to anthrax spores. Eventually, these strategies proved to be unnecessary and ineffective.

Two other related emotions that communication specialists in risk and crisis situations may need to address are misery and depression. *Misery* refers to a sense of distress or suffering caused by need. Misery can lead to depression. *Depression* is a feeling of prolonged sadness and withdrawal. When a risk or crisis is overwhelming or especially terrible, members of the audience may consider the situation very depressing. Even those who are not directly involved in the tragedy may experience a sense of misery or become depressed as they watch or hear coverage of the

Bioterrorism

The deliberate release of viruses, bacteria, germs, or other agents used to cause illness or death in people, animals, or plants. These agents are typically found in nature, but it is possible that they could be changed to increase their ability to cause disease, make them resistant to current medicines, or to increase their ability to be spread into the environment. Biological agents can be spread through the air, through water, or in food. Terrorists may use biological agents because they can be extremely difficult to detect and do not cause illness for several hours to several days. Examples of agents used for bioterrorism are anthrax and smallpox (adapted from the Centers for Disease Control and Prevention, http://emergency.cdc.gov/bioterrorism/overview.asp).

tragedy. Further, those who are depressed may fall into despair and, like those who are apathetic, may have trouble feeling the needed motivation to respond to the crisis.

Now that we have discussed many of the possible emotions that can be aroused in crisis situations, return to Health Communication Nexus Interlude 9.3. What were some of the emotions you listed? Would you be fearful of a possible assault on your campus or in your community? Would you be angry with how

A Crisis Communication Case Study

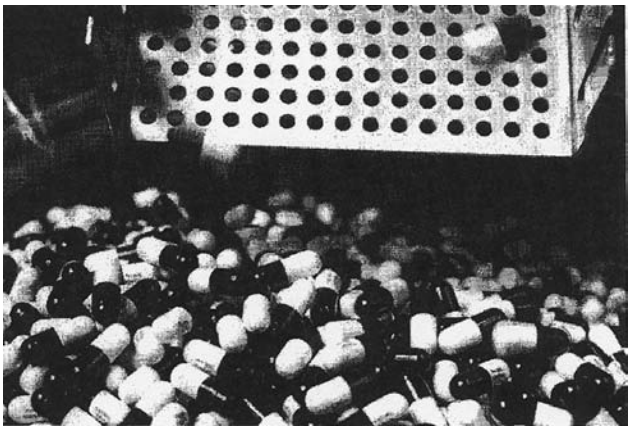
Tylenol Poisoning

To further illustrate crisis communication, we offer an exemplar case of how crisis communication was effectively used to protect the public and protect an organization's reputation with consumers. In 1982, seven people in the Chicago area died after ingesting Extra-Strength Tylenol capsules that had been laced with potassium cyanide. Investigators quickly determined that the poisoning had occurred after the production process and it was believed that an individual tampered with packages in stores and added the poison to the capsules.

The knowledge that there likely were additional tainted capsules that had been sold caused many people in the Chicagoland area as well as around the country to panic. Johnson & Johnson, the manufacturers of Tylenol, immediately issued a nationwide recall of the capsules. In addition, to protect those who already may have purchased tainted capsules, police cars drove through Chicago-area streets blasting warnings over loudspeakers—and although this alerted people to the situation, it also caused a near panic in the area. Across the country, people threw away any Tylenol capsules in their possession; fortunately, the crisis was contained and no other cases of poisoning were reported.

Although the poisonings were not the fault of Johnson & Johnson, the company took full responsibility for the situation and immediately took decisive action to prevent further illness and to restore the public's faith in their product. In addition to the massive recall of the product, Johnson & Johnson also opened a crisis hotline which provided information about the poisonings, symptoms of cyanide poisoning, and safety measures. Johnson & Johnson's swift and positive reaction not only prevented further harm but also allowed the company to maintain the prominence of its Tylenol brand.

One key to the success of this crisis communication effort was the immediate reaction by both Johnson & Johnson and public officials. The public was updated on the situation and



all possible steps were taken to prevent anyone from consuming the tainted capsules. Following the unfortunate tragedy, Johnson & Johnson also made changes to its packaging, creating plastic safety seals to prevent tampering. Eventually, Johnson & Johnson even stopped the production of capsules, as it was determined that capsules were too easy to tamper with (Benoit & Lindsey, 1987; Snyder, 1983).

The Tylenol tampering case of 1982 is credited with aggressive development of tamper-proof seals on medications.

So given what you know about the Tylenol tampering case and risk and crisis communication, what do you consider the best measure of the effectiveness of the crisis communication employed in this case? Perhaps it's that no additional people were killed after the initial tainting was discovered. Or the fact that Extra-Strength Tylenol remains a successful product for sale on store shelves today. Or that as a result of this case, manufacturers began to more aggressively develop safety-seal packages so that tampering could be determined before the tainted product was ingested. Or that we have an excellent example to illustrate the importance of effective crisis communication to the public's health.

officials had handled the situation? Given the variety of emotions that risk and crisis communication can arouse, it is important to monitor the audience for counterproductive emotions and adapt messages based on the audience's emotional needs. Consequently, a good risk communication or crisis communication plan should contain an audience feedback system. In the next section, we present best practices in risk and crisis communication.

Now that we have an understanding of the many intricacies involved with crisis and risk communication, the following list of best practices for risk and crisis communication (Covello, 2003) can serve as a useful tool in applying our understanding to relevant situations.

1. Accept ann inolve stakeholders as legitimate partners
   - **a.** Identify who is affected by the risk or crisis
   - **b.** Include them in the decision-making process
2. Listen
   - **a.** Find out audience members' concerns
   - **b.** Empathize with their concerns
3. Be truthful, honest, frank, and open
   - **a.** Share all the information you have
   - **b.** Acknowledge what you do not know
4. Coordinate, collaborate, and partner with other credible sources
   - **a.** Identify sources that have quality information
   - **b.** Identify sources trusted by the audience
5. Meet the needs of the media
   - **a.** Be available
   - **b.** Keep interviews and statements short and to the point

So far, this chapter has defined and distinguished between risk and crisis communication. Next we provide an example of how to apply these concepts within a service-learning project.

PHASE 1	PHASE 2	PHASE 3	PHASE 4
12	23	2	243
244	456	609	513
119	23	246	89
4	41	45	560
221	234	598	3
244	456	609	513
4	41	45	560
244	456	609	513
4	41	45	560
278	342	499	301

Table 1 ◆ *Phases in the Diffusion of Innovative Processes*

SERVICE-LEARNING APPLICATION

Integrating Multiple Voices in a Campaign Project

In this service-learning application, we describe how the Motorcycle Safety at Purdue (MS@P) campaign developed risk messages about motorcycling for its community audience. While developing risk messages for this campaign, it was important to be mindful of the voices of our target audiences—motorcyclists, drivers of cars and trucks, and family and friends of motorcyclists—but also the voices of our campaign team members, that is, the service-learning students working on the campaign. Another of the core components of service learning is the inclusion of youth voices in service-learning activities. This means that although you may be guided by your instructor and your community partner, your team's ideas and opinions should play a central role in the service-learning activities you engage in from planning, implementing, and evaluating your service-learning experiences (Corporation for National & Community Service, 2010). In other words, service learning is not just going to a community agency and doing a job they ask you to do such as painting a room or doing some data entry. In authentic service-learning efforts, your input is essential to all aspects of the project.

As a case in point, let's consider how members of the MS@P campaign worked to design and disseminate risk messages to their target population. Initial needs assessment research prior to launching the MS@P campaign suggested that many preexisting campaign efforts regarding motorcycle safety centered around informing those who ride motorcycles or those who are thinking about riding motorcycles about potential safety risks involved in riding. And even though a primary finding of the needs assessment was that there are other target audience that needed to pay attention to motorcycle safety, including drivers of cars and trucks and friends and family of motorcycle riders, motorcycle riders still need to be addressed. The risks of riding a motorcycle include the following:

- Being involved in a crash
- Minor injuries—such as most road rash
- Serious injury
- Death

Upon performing the needs assessment, the MS@P campaign team determined one of their greatest challenges would be trying to raise the level of concern about the risks of riding in the target audience of motorcyclists. Early interviews revealed that some motorcycle riders were unaware of some of the risks, but many others knew of the risks and had become at least somewhat apathetic about them. The motorcycle riders' beliefs that they were immune to the risks or that if they were in a crash it would be fate made them an especially challenging audience to approach and persuade about motorcycle safety behaviors.

The needs assessment revealed that the campaign team needed to make several important decisions regarding motorcycle safety messaging for the target audience of motorcycle riders, including the following:

- Message content
- Message design
- Channels for dissemination

With respect to *message content*, the campaign team had to determine what risks they wanted to present to the target audience of motorcycle riders and what tone and word choices the messages would incorporate. Additionally, the campaign team had to determine what the message designs would look like. *Message design* includes decisions about aspects from font style and size on written materials to the color scheme of graphics. Finally, the team needed to determine what *message channels* would be most effective for transmitting their risk messages to the intended audience of motorcycle riders. Each of these messaging decisions involved not only input from the needs assessment, which interviewed target audience members, but also the input or voices of the project teams working on the campaign.

Based on the needs assessment research and their own input, the campaign team created several draft versions of risk messages to appeal to motorcycle riders using different text, tag lines, and with different graphics and color schemes. Three examples of draft messages included the following.

As you can see from these draft messages, the service-learning project team tried to practice the principles of effective risk communication while integrating their unique voices and understanding of the bigger picture of motorcycle safety. Some of the draft messages incorporated a humorous

approach, while others kept a serious tone. Can you identify which draft messages were meant to be humorous or serious in tone? Also, in order to increase the emotional reaction of this audience, some draft messages included statistics about the number of accidents and deaths each year as well as personalized examples and stories. The campaign team tested these draft messages with a sample of the intended audience of motorcycle riders by conducting a series of focus groups within their university community. During the focus groups, motorcycle riders were asked to express their opinions about the messages and make suggestions for how the messages could be improved. Participants also were asked their opinions on what the best channels would be for reaching them with these messages.

Based on the feedback the campaign team received, coupled with the team's knowledge of risk communication and their own experiences as members of the university community, the campaign team was able to make decisions about what messages to use, how to present those messages, and which channels to use for message dissemination. One of the primary media channels for dissemination of the MS@P campaign messages is the campaign website—www.ItInvolvesYou.com. Go to this website now to see if you can determine which messages from those draft messages illustrated were chosen for further development and which messages were not chosen for further development. Why do you think the messages that do not appear on the website were discontinued? To learn more about how the MS@P service-learning campaign team designed the initial messages for the campaign and to see more draft message examples, go to www.casesjournal.org to read an article we published online about the campaign (Kosmoski, Mattson, & Hall, 2007). In addition to the website, the MS@P campaign messages appear through a variety of media outlets around campus, including city buses, the university's cable TV station, digital signs in campus buildings, banner signs around campus, and ads during free movies sponsored by the university's student union.

Now that you have seen how the team members were involved in all aspects of creating the risk messages, think about ways to ensure that your youth voice is being heard as you engage in your own service-learning projects. This is not to say, however, that other voices should not be involved, as the ideas and opinions of your service-learning partners are invaluable. Here are some questions to help guide you as you try to implement your unique voice and ideas.

- What ideas does our service-learning project team have?
- What ideas do our service-learning partners have?
- Why do we like our service-learning project team's ideas?
- What are the benefits of our ideas?
- Are there ways to combine our project team's ideas with our service-learning partners' ideas?
- Who can we designate as a spokesperson for presenting our ideas to our partners?

In thinking about the various ideas for projects, you want to be sure of what ideas are yours and what ideas are your partners. It is great to use the ideas of your partners, but you will want to bring you ideas to any projects you do. Being able to articulate the benefits and logistics of your ideas will go a long way toward being able to get others on board with your ideas as well.

Chapter Summary

In this chapter we compared and contrasted risk communication and crisis communication and incorporate several examples. First, we defined and discussed risk communication and the factors that influenced individuals' perceptions of risk. Next, we identified the information components to consider when determining effective ways to convey risk. We then considered challenges to risk communication and ways to overcome these challenges. In the second half of the chapter we defined and discussed crisis communication. We outlined messaging components to consider during a crisis along with effective strategies for crisis communication. In addition we covered several emotions aroused during crises and through a case studies and a list of best practices offered practical ways to address tensions during crises. We concluded the chapter by emphasizing the role youth voice should play in service-learning projects, and we illustrated how students' voices were incorporated into the designs of risk messages for the MS@P campaign.

References

Benoit, W. L., & Lindsey, J. J. (1987). Argument strategies: Antidote to Tylenol's poisoned image. *Journal of the American Forensic Association, 23*(3), 136–146.

Centers for Disease Control and Prevention (2007). Childhood lead exposure. http://www.cdc.gov/Features/ChildhoodLead/ (retrieved February 21, 2009).

Corporation for National & Community Service (2010). Learn and Serve America's National Service-Learning Clearinghouse. http://www.servicelearning.org/ (retrieved January 12, 2010).

Covello, V. T. (2003). Best practices in public health risk and crisis communication. *Journal of Health Communication, 8* (Supplement), 5–8.

Dutta-Bergman, M., & Mattson, M. (2006). Decomplexifying communication strategies in response to bioterrorism: Toward a synergistic crisis communication model. In S. Amass, F. A. Bhunia, A. R. Chaturvedi, D. R. Dolk, S. Peeta, & M. J. Atallah (Eds.), *The science of homeland security* (vol. 1, pp. 11–36). West Lafayette, IN: Purdue University Press.

Kosmoski, C. L., Mattson, M., & Hall, J. (2007). Reconsidering motorcycle safety at Purdue: A case study integrating campaign theory and practice. *Cases in Public Health Communication & Marketing, 1*.

Malik, M. (2009, March 10). In search of higher ground: Memories of 2008 floods still fresh for many. [Lafayette, IN] *Journal & Courier,* pp. B1, B4.

National Highway Transportation Safety Administration (2010). Traffic safety facts 2008: Motorcycles. http://www-nrd.nhtsa.dot.gov/pubs/811159.pdf (retrieved August 9, 2010).

National Public Radio (2009). Travel restrictions tighten amid swine flu concerns. http://www.npr.org/templates/story/story.php?storyId=103517402 (retrieved April 27, 2009).

National Research Council (1989). *Improving risk communication*. Washington, DC: National Academy Press.

Scott, B. (2009a, March 11). Residents read the signs. [Lafayette, IN] *Journal & Courier,* p. A6,

Scott, B. (2009b, March 11). "We are as prepared as we can be." [Lafayette, IN] *Journal & Courier,* p. A1,

Snyder, L. (1983). An anniversary review and critique: The Tylenol crisis. *Public Relations Review, 9*(3), 24–34.

Witte, K., Meyer, G., & Martell, D. (2001). *Effective health risk messages: A step-by-step guide*. Thousand Oaks, CA: Sage.

World Net Daily (2007, June 7). China exports lead poisoning: From eye shadow to glazed pottery, products pose danger to U.S. kids. http://www.wnd.com/?pageId=41959 (retrieved August 9, 2010).

PROFILE

Exploring Micro-Level and Macro-Level Influences in Health Communication

Rebecca Cline, PhD—Kent State University

A common thread running through Professor Rebecca Cline's career is an interest in how everyday interpersonal communication influences the health and wellbeing of individuals. This interest has led her to conduct research about self-disclosure, HIV/AIDS, death and dying, and healthcare practitioner-patient interaction. Her decision to study and work in health communication came about from her long-standing interests in communication and medical science. Health communication allows her to combine her passions and participate in projects that help improve the wellbeing of others. She accomplishes this through educating students and medical practitioners about how to communicate with those experiencing health issues.

One of Cline's current research interests is studying the effects of slow-motion technological disasters and how to more effectively communicate during these situations. The majority of research on natural disasters has focused on rapid onset natural disasters such as a hurricane or earthquake where the damage is almost instantaneous and there is no control over the cause of the disaster. Slow-moving technological disasters occur over several years and often there is someone or a group or agency to blame.

An example of a slow-motion disaster is toxic waste leakage that may have been contaminating water and soil for years. Cline explains that people have different reactions to these types of disasters so the current best practices for dealing with disasters do not always apply. Specifically, Cline has been studying the town of Libby, Montana which is the site of a former vermiculite mine. Residents of town and workers in the mine were unknowingly exposed to a naturally-occurring form of asbestos that was released as a result of the mining process. Exposure to asbestos can lead to serious and often fatal lung conditions. The asbestos disaster has been detrimental to the health of the community as there have been over 200 deaths attributed to asbestos exposure and countless illnesses. The situation also has devastated the local economy and caused disagreements among community members about how to handle the situation. Cline and her research team are studying the effects of the disaster on residents and trying to determine what communication response strategies might be most helpful in this situation and other slow-moving technological disasters (Cline, et al., in press).

For Cline, health communication is an important area of study because effective communication leads to better outcomes for both healthcare providers and patients or consumers. Communication also is unique because it can resolve larger issues related to health such as health disparities, problems with healthcare delivery, and social stigma.

References

Cline, R. J. W., Orom, H., Berry-Bobovski, L., Hernandez, T., Brad, B. C., Schwartz, A. G., et al. (in press). Community-level social support responses in a slow-motion technological disaster: The case of Libby, Montana. *American Journal of Community Psychology.* doi:10.1007/s10464-010-9329-6.