This self-study module can be completed in one hour.

IFIC Foundation is a Commission on Dietetic Registration (CDR)-accredited provider of Continuing Professional Education (CPE) for Registered Dietitians (RD) and Dietetic Technicians, Registered (DTR)
Risk Communication

...is intended to help consumers make informed decisions about risk, through shared knowledge and understanding.

Effective risk communication is intended to share knowledge and understanding about potential risk in a manner that helps consumers make well-informed decisions. It is a skill that is relevant to situations consumers encounter from day to day, such as considering weight management or hand washing, as well as situations that are rarely even considered, such as food defense. Effective risk communication fosters a better understanding of both the reality and perception of risk, so that authorities can communicate more successfully, and the consumer can react appropriately.

Scientists, health professionals, government officials, industry representatives, and others who communicate with consumers about risk may struggle to understand why people make the decisions they do. The communicator can become frustrated when the consumer does not read or listen carefully to and understand potential risks, or does not seek out additional information in order to make informed decisions.

The reality is that consumers do not think about risk in the same way that experts think about risk. Human beings filter risk information through a variety of lenses that affect what they hear, how they process and come to understand the information, what they conclude, and what they actually do. For the consumer, risk is highly subjective. Risk communication rises to the challenge of bridging this divide between expert analysis of the risk equation on one side and public reaction and action on the other.

For example, an individual may avoid irradiated beef, because they may perceive it is dangerous. However, it is actually safer in that it kills pathogens in the product. Consumers may also neglect proper hand washing after using the restroom. Proper hand washing is proven to disease risk of spreading illness.
This module has two parts: Part One will provide food safety and nutrition communicators with an overview of the subjective approach people use to make decisions.

Part Two will describe a 3-step recipe for success in guiding people toward more informed decision making with respect to risk.
Learning Objectives

• Define risk and how to interpret the consumer’s perception of risk.
• Understand risk communication realities from the consumer’s perspective.
• Learn strategies for addressing the inherent uncertainties in risk communication.
• Learn to guide consumers in making informed decisions about risk.

Learning objectives for this self-study module include:

• Define risk and how to interpret the consumer’s perception of risk.
• Understand risk communication realities from the consumer’s perspective.
• Learn strategies for addressing the inherent uncertainties in risk communication.
• Learn to guide consumers in making informed decisions about risk.
Part One: Why is it so hard to communicate risk?

• Defining risk: differences between experts and consumers
• Uncertainty is inherent in risk
• Highly technical = Highly misunderstood
• Consumer reliance on “rules of thumb”

Risk communication is a challenging enterprise, due in no small part to a lack of clear understanding regarding the nature of risk, particularly as it relates to food safety and nutrition. There are often large discrepancies between risk and perceived risk (Slovic 1987).

The communicator can build a strong foundation from which to improve understanding and empower individuals to manage risk through a thorough understanding of the following factors. These factors influence how risk communication messages will be heard, processed, and understood:

• Experts and consumers define risk differently.
• Uncertainty is an inherent aspect of risk, and can have a strong negative influence on consumer reaction and action.
• A highly technical approach to communicating risk can be overwhelming and misleading.
• Consumers rely on “rules of thumb” when information is complex and/or when perceived risk is high.

The following slides will explore these issues that influence the lens of consumer risk perception.
Defining Risk: The Expert

- Probability of negative consequences of a hazard occurring
- Magnitude of negative consequences
- Susceptibility to hazard/threat
- Risk and its outcomes can be estimated, not guaranteed
  - No such thing as “zero risk”

To experts, risk is the probability of negative consequences of a hazard occurring, the magnitude of those consequences, and the number of people susceptible to the hazard or threat (Witte 1992). Risk and its relevant outcomes can be estimated, not guaranteed. There is no such thing as “zero risk.” For experts in a given field, there is a clear understanding and accommodation of the uncertainty and doubt inherent in risk, and the need to weigh pros and cons of both risks and benefits.

For more information on “zero risk” read IFIC Foundation’s Food Insight article “Myth of Zero”

http://www.ific.org/foodinsight/2004/nd/safetyfi604.cfm
Defining Risk: The Consumer

• How much they dread the risk
• How much they perceive is known about the risk

\[
\text{High dread} + \text{Unknown} = \text{Increased attention by media and consumers}
\]

What do consumers mean when they say that something is “risky?” From an academic perspective, consumers make conclusions regarding risk based on: (1) how much they dread the risk and (2) how much they perceive is known about the risk, which may be different than what is actually known (Slovic 1987; 1992). Consumers dread a situation more when they perceive a lack of control, potential for catastrophic or fatal consequences, or high risk to future generations.

Consumers perceive risk to be unknown when the hazard is unobservable, unknown to those exposed, unknown to scientists, new, or when the consequences of the risk are delayed.

These findings by Slovic have been used by multiple researchers over time to predict the kinds of risk that will lead to public concern. Risks that are high in both dread and unknown factors will be the most likely to garner attention by the public (and the media).
Defining Risk:
Classic Misperceptions

- E. coli = high dread
- Lack of meat thermometer use = low dread

Lack of information?

Simply communicating facts will not decrease the public’s concerns

For example, a health risk such as infection with a harmful strain of *E. coli* may be dreaded because it can lead to death in some circumstances. At the same time, there may be little dread regarding lack of meat thermometer use, as it is perceived to be an inconvenience during cooking. However, consumers may be unaware of the connection between the use of a meat thermometer and decreased risk of *E. coli* infection. Certainly, the consumer’s perceived level of control over choosing to use a meat thermometer would decrease dread. Would they dread *E. coli* less if they knew they have a choice that greatly reduces risk (i.e., thermometer use)?

One way in which experts have attempted to address public concern is to educate and inform about the facts. Yet, simply communicating facts and figures about risks will not always decrease the public’s concerns. For example, although experts ranked nuclear power 20th out of 30 potential risks, a poll of college students and the league of women voters rated it first revealing the discrepancy in knowledge about the risk among experts and varying segments of the public.
Research in all disciplines, including food science, food safety, and nutrition, is constantly evolving. This acquisition of scientific knowledge is perceived by consumers as *changing* knowledge, or that the experts themselves are “changing their minds” about what is good or bad for health. In today’s food environment, consumers are unclear about the risks associated with caffeine consumption, *trans* fat, and fish consumption. Misinterpretations and seemingly contradictory assessments of scientific findings can lead to both overreactions and under-reactions, and create a lack of understanding toward the communicator. This lack of understanding towards the communicator can lead to inaction on the part of the consumer.
Uncertainty Inherent in Risk: CASE STUDY

- Consensus: moderate caffeine consumption safe for pregnant women and children
- 2008: 2 studies, 2 different conclusions re: miscarriage risk
- Dueling studies portrayed expert opinion as polarized, confused

Do not avoid contradictory findings, but provide appropriate context.

Debate regarding the health effects of caffeine consumption provides an interesting case study on the chaotic effect that uncertainty has on the health information environment. The full body of evidence with respect to caffeine and health supports the safety of moderate consumption for not only healthy individuals, but also pregnant women (IFIC Foundation 2008a). However, two studies on caffeine and miscarriage risk (Savitz et al 2008; Weng et al 2008) were portrayed in the media in early 2008 as “dueling studies,” leading to a lack of appropriate context and interpretation of the findings with respect to the full body of evidence. Each set of authors drew contradictory conclusions regarding the relationship between caffeine consumption and the risk of miscarriage. While discussing two studies is better than discussing only one, additional context around these studies may have reduced confusion regarding the different conclusions. For example, both studies were observational rather than experimental, therefore unable to suggest cause and effect. Furthermore, two earlier reviews of all of the evidence on this topic concluded that moderate caffeine consumption does not increase miscarriage risk (Higdon and Frei 2006; Nawrot et al. 2003).

Seemingly contradictory research findings should not be avoided by the media or other communicators. Indeed, the complexity of the risk is an important reality. However, it is also important to recognize that this reality will also lead to a great deal of frustration and doubt on the part of the public. It is possible to reduce the consumer frustration by providing them with a clear synopsis of the existing literature, and by communicating in a confident, credible and assertive manner, as will be addressed in Part 2 of this module.
Highly Technical = Highly Misunderstood

• Technical barriers to understanding:
  – Technical language
  – Numbers and statistics
  – Relative versus absolute risk
  – Clinical versus statistical significance
  – Cause/effect versus correlation

A highly technical approach to communicating risk can be overwhelming to consumers. Numbers and statistics are very often misunderstood (Peters et al. 2006). Concepts such as relative and absolute risk can easily be misleading. Few consumers are aware of or understand the difference between statistical and clinical significance. And the nuances in interpretation of risk calculated from observational versus experimental data are lost on many. The importance of simplicity in risk communication will be addressed in Part 2.
People often use simple decision-making rules, or “rules of thumb,” when making personal decisions that involve risk. These rules are used as a way to simplify, but can lead to uninformed decisions, as will be discussed in the following slides.
Rule of Thumb #1: 

*If the media are paying attention to this, it must be bad!*

Consumer risk decisions are often affected by the volume of media attention an issue might receive. Media attention can lead to increased memorability of a topic, exacerbating this “rule of thumb.” This bias leads people to overestimate the frequency of rare events (Carroll 1978; Tversky & Kahneman 1974).

Regarding the earlier caffeine and miscarriage case study, the study that found an association between caffeine consumption and increased miscarriage risk (Weng et al. 2008) received more media coverage than the study that found no link between consuming up to 200 mg caffeine per day and increased miscarriage risk (Savitz et al. 2008). The latter study was conducted on a larger sample size and was designed to allow less recall bias; however, it certainly had less “shock value,” and was therefore reported less by the media. This caused the perception by many that there was no debate; rather the Weng study came across as the definitive study on caffeine and miscarriage in media reports.

*Source: IFIC media monitoring on caffeine*
Rule of Thumb #2: *When in doubt, it’s safer to do nothing.*

Another rule of thumb is called the omission bias. People believe that no action is less harmful than action (Ritov & Baron 1990; Spranca, Minsk, & Baron 1991). Meaning rather than trying to work out a risk/benefit analysis or “consume in moderation” -type message, they will avoid the risky behavior all together.

For example, pregnant women may believe that eating no fish at all is better than eating the proper amount of safe fish. The FDA has issued advice for women who are or might become pregnant, nursing mothers and young children that high concentrations of methylmercury can lead to health and developmental issues for children and fetuses, and certain fish species have high levels of methylmercury (US FDA 2005a). Yet, seafood is also a good source of protein and omega-3 fatty acids (IFIC Foundation 2008b; Lichtenstein et al. 2006). Research indicates that omega-3 fatty acids are beneficial to heart health (Erkkila et al. 2006; Marchioli et al. 2002), assist in brain and visual development (prenatally and in early infancy) (Auestad et al. 2003; Birch et al. 2007; Wright et al. 2006), and may have a role in reducing risk for Alzheimer’s disease (IFIC Foundation 2008b). Thus, the benefits of eating many types of seafood outweigh the risks (Mozaffarian & Rimm 2006). Additionally, many consumers are making dietary avoidance decisions (without the context of the intended audience and relevant fish species addressed by the existing dietary guidance) who are not part of the intended audience described above; therefore avoiding a “risk” that does not apply to them. (US FDA 2005b; Shimshack et al. 2007). Indeed, Food and Drug Administration (US FDA) guidance is specific to four species of fish: shark, tilefish, king mackerel, and swordfish (US DHHS 2004). Other species of seafood are safe to eat and should certainly be encouraged for pregnant women.
Consumers tend to be overly confident in their own judgment about risk, making change more difficult. For example, according to IFIC Foundation’s 2008 Food and Health Survey, 82 percent of Americans are confident in their ability to prepare food safely. However, only 48 percent report that they use different cutting boards for each product like raw meat and produce, only 29 percent use a food thermometer and 70 percent separate raw meat and poultry from ready to eat products.

Fear and stress are emotions that steer people toward familiarity and constancy. In a similar manner, uncertainty tends to steer individuals toward inaction as a safer option than any action.

Traditions and customs also hold consumers in patterns that, although often enriching and beneficial, may in certain cases increase risk. For example, leaving Thanksgiving dinner on the table from 2:00 until 8:00pm so that the family can help themselves to seconds and thirds without trouble is what many families have “always done.” Putting food into the refrigerator may be perceived as a message to guests that it is time for them to leave. If no one has become obviously and immediately ill, it is hard to convince these families that the practice is dangerous.
Feeling optimistic about one's personal risk, even though one's condition or behavior places the individual at risk, is a demonstration of "optimism bias." These individuals may recognize that some people get sick from eating food that is spoiled, but perceive that such situations are somehow different from their own.
Rule of Thumb #5

If I worried about that, I might as well stop living.

There are people who do not believe there is a course of action they can take that will help them to reduce their risk. Individuals who have feelings of low self-control may tend to avoid thinking about risk. (Self-efficacy will be addressed in further detail in Part Two.) They may reason, “Why think about it if I can’t fix it?” or “I don’t want to change.”
Summary of Part One

- Risk communication can guide consumers to make the right choice
- To be effective, risk communicators must be aware of the consumer’s perspective:
  - Different approach to defining risk
  - Inherent uncertainty of risk is unsettling
  - Highly technical communication interferes with understanding
  - “Rules of thumb” often guide decisions

People have a tough time making effective food safety and nutrition decisions. However, risk communication can help to empower and appropriately guide consumers through these situations. Awareness of how consumers define risk, in addition to the “rules of thumb” they may rely on when processing the risk, can help the communicator to appropriately guide the consumer to a more appropriate perception of the risk and appropriate action. In crafting messages that resonate with consumers, the communicator must acknowledge that the nature of risk is often uncertain, and communicate this fact to consumers in a way they can understand. Part Two will discuss strategies for doing exactly these things.
Consumers deserve solid information about actual risk, and clarification around perceived risk. There is considerable opportunity for food safety and nutrition educators to have a positive impact on consumer understanding and behavior by conveying risk information within the appropriate context, by keeping the consumer’s perception in mind. Crafting positive messages that will resonate with the consumer and delivering them in an effective manner creates more correct actions or behaviors for consumers than simply communicating more frequently.

Part Two of this module will describe a 3-part process: “PLC” (PLAN, LISTEN CARE) for guiding people toward more informed decision making. Just as people in stressful situations need “TLC,” risk communication requires “PLC.” Each of these three steps will be described in detail, along with practical tips and application to current scenarios.
PLAN

- What is the communication goal?
- What is the message?
- What can people do about the risk?
- Accept ambiguity; risk communication is an ongoing process.
- STARC: Message Delivery

PLAN: Questions and Concepts

Thoughtful and careful planning is essential for effective communication, whether communicating with a consumer face-to-face, talking to a large group, being interviewed by a journalist, or writing a fact sheet. For individual communicators, task forces, and organizations alike, planning addresses the risk scenario (both real and perceived) and the target audience. The communicator must:
- understand the nature of consumer risk perception;
- understand the actual risk, which includes knowing to whom the risk is relevant; and
- know the currently held risk perception, specific to the target audience.

From this information, a communications strategy and messaging can be developed that will help consumers make decisions and take appropriate actions to minimize risk.

The following questions and concepts can be very helpful in creating a plan:
- What is the communication goal?
- What is the message? A message can be defined as your main point that you want your audience to receive and understand
- What can people do about the risk?
- Accept ambiguity; risk communication is an ongoing process.
- Simple, Timely, Accurate, Repeated, Consistent (STARC): Message Delivery

To help better anticipate the needs of your audience, the next few slides will go through these concepts in detail.

[NOTE: Organizations and risk communication teams should develop a communications plan in advance of a crisis situation. Although beyond the scope of this module, there are many excellent resources available to assist in this process, such as the module at http://www.ific.org/riskcommunication/trainingmodules/upload/M4%20T1%20Risk%20Comm%20Planning%20Guide%202007.doc.]
1. **What is the communication goal?**

- Determine before developing specific messages
- Consider need to establish trust/credibility
- Define the desired outcomes:
  - Attitudes
  - Understanding
  - Behavior

**PLAN: Questions and Concepts**

Before developing specific messages, elucidate the broad goals of communication. Consider whether there is a need to establish trust and credibility with the particular audience, especially if you do not already have a relationship with them or they are not familiar with you as a communicator on the particular topic to be addressed. Importantly, define desired outcomes in terms of consumer attitudes, understanding, and/or behavior.
2. What is the message?

- What are the 3 most important things the consumer…
  - needs to know?
  - would like to know?
  - likely to get wrong?

- 3 key messages may emerge
  - Be prepared to deal with all elements included in your message
  - Develop 3 supporting messages for each

Building messages can help you achieve your communications goal. They ensure that you remain consistent when speaking to multiple audiences and that you don’t forget any important information. There are three questions that help to lay the groundwork for building towards desired outcomes:

- What is the most important thing the consumer needs to know?
- What is the most important thing the consumer would like to know?
- What is the most important thing the consumer is likely to get wrong unless they are emphasized?

Based on the answers to these questions, three key messages may emerge. The communicator should be prepared to deal with all three of these concepts or messages and prepare three supporting statements for each of these messages. Studies have shown that in stressful situations, consumers have difficulty remembering more than three key concepts or messages (Covello 2003).
Though beyond the scope of this module, “message mapping” is an important approach to message development that may be explored with additional time. In a nutshell, message mapping provides a framework for organizing information, crafting clear and concise messages, and ensuring message consistency within an organization. It also allows for better anticipation of stakeholder questions and concerns (NCFPD 2009).

A message is only as strong as the evidence that backs it up. Even with strong credibility and trust to back up the message, some people may remain skeptical of the message. A risk communicator must seek to “prove” the validity of the message and provide credible evidence to back it up. There are numerous types of evidence that can lend support to a message:

- Statistics. Remember to use simple figures that will be understood by your audience (e.g., 1 in 10 versus 10%).
- Simple graphic representations (bar or pie charts) of complex numbers of ideas.
- True stories that illustrate key message points and resonate with the audience.
- Visual images that depict the severity of the risk.
- Citations from the evidence source (e.g., the American Medical Association).
- Recommendations from authoritative bodies (e.g., FDA, USDA, others).
3. **What can people do about the risk?**

- Without a personal action plan, consumers feel fearful and anxious
- Provide strategies and concrete actions for managing risk

**PLAN: Questions and Concepts**

One of the most common mistakes that risk communicators make is to limit their message to pointing out the severity of the risk and the audience’s vulnerability to the risk without providing strategies to manage the risk. Certainly, the audience’s perception of heightened severity and susceptibility to a risk will increase their feelings of vulnerability toward that risk. When people perceive that they are at increased risk, but do not have actionable steps for “doing something about it,” they are likely to become fearful and anxious. Although this is a natural and effective human response to threat (called the "fight or flight" response), it should be the risk communicator’s goal to help people confront their risk—not flee from it. Effective risk communication must give the audience concrete actions in response to a risk so they can minimize their anxiety and susceptibility to that risk.
3. What can people do about the risk?
Empowering Individuals to Act

- Self-efficacy
  - Perception that one has the personal capacity to avert a threat

- Response efficacy
  - Perception that recommendations will work to avert threat

- Stimulate self-efficacy and response efficacy through communicating:
  - This is easy
  - This is affordable
  - You can do it.
  - It works!

PLAN: Questions and Concepts

Bandura (1969, 1971, 1986) argued that perceptions of self-efficacy influence thought patterns, actions, and emotional arousal. **Self-efficacy** refers to the perception that one has the personal capability to do the things necessary to avert a threat. With regard to risk communication, self-efficacy is only one part of this picture. Audiences must also perceive that the recommendations they receive from a risk communicator will work to avert the threat. This is known as **response efficacy**. When individuals have both self- and response efficacy, they will be better able to fully understand the nature of the risk and engage in "danger control." Danger control refers to actions or behaviors that seek to prevent a threat (versus simple avoidance of a threat). To help encourage self- and response efficacy that can lead to "danger control" behaviors, risk communicators should develop messages that explicitly state:

- This is easy.
- This is affordable.
- You can do it.
- It works!
4. Accept Ambiguity

- Knowledge of food safety and nutrition is constantly evolving
- Do not assure public of safety when uncertainty remains, unless there is credible, scientific data to support it

PLAN: Questions and Concepts

Risk communicators must accept that knowledge of food safety and nutrition is ever evolving as science provides new discoveries and answers to research questions. Some issues do not have resolutions yet and some resolutions for other issues are unclear.

For example, consider the recent debate over plastic versus glass baby bottles. Those made of hard plastic contain bisphenol A (BPA), a chemical used in the manufacture of polycarbonate plastic (for some food containers, certain types of water bottles and some baby bottles) and epoxy resin coatings (used in metal can liners). The polycarbonate and epoxy resin coatings serve a safety function in the food container (e.g., heat resistance, durability, prevention of contamination of food (IFIC Foundation 2008c)). BPA has been widely studied and deemed safe for use in food packaging by the U.S. FDA (US FDA 2008a), the European Food Safety Authority (EFSA 2008) and Japan’s food safety authorities (AIST 2007).

Health Canada’s 2008 risk assessment concluded that “the current dietary exposure to BPA through food packaging uses is not expected to pose a health risk to the general population, including newborns and infants” (Health Canada 2008). However, the Government of Canada decided to take precautions to limit BPA exposure from food packaging applications to infants and newborns (US FDA 2009). Anticipating the risk assessment’s release, many Canadian retailers began removing products with BPA causing most people to believe the risk assessment would determine the chemical was unsafe. This progression of events caused a great deal of confusion, with Health Canada’s determination of safety often buried in media coverage (The Washington Post, New York Times, ABC News).

It is no wonder consumers are confused and concerned. Understanding and accepting the nature of risk analysis and decision making can help communicators more effectively respond to the public. Communicators should not feel compelled to assure the public of safety when considerable uncertainty regarding the potential hazard and vulnerable populations remains. In the case of BPA, health authorities around the world, US and Canada agree that the current level of exposure does not pose a public health threat to everyone including infants and newborns.
5. STARC: Message Delivery

- Messages should be “STARC”
  - Simple
  - Timely
  - Accurate
  - Repeated
  - Consistent

PLAN: Questions and Concepts

When developing key messages, messages should be “STARC”:
- Simple
- Timely
- Accurate
- Repeated
- Consistent

The next few slides will focus on each part of the STARC message delivery.
5. STARC: Message Delivery

Simple

• Simplicity is key…but avoid “dumbing down” message
• Tips for crafting a simple message:
  – Choose 1- or 2-syllable words
  – Avoid acronyms and scientific jargon
  – Rehearse
  – Use consistent names, denominators, terms
  – Use familiar metaphors

PLAN: Questions and Concepts

A common adage, “Keep it simple, silly” or “KISS,” provides a good reminder when developing risk communication messages. Simplicity is a key concept for risk communicators, although it is often challenging. For example, consider these complex risk issues:

• Should pregnant women eat fish?
• How dangerous are pesticide residues? (See http://www.epa.gov/rpdweb00/radionuclides/strontium.html)
• How can we prepare for an intentional attack on the food system?

It is also important to remember that most issues have pros and cons. For every point there is a counter point, and a risk communicator must prepare to address them.

Though there are no hard and fast rules as to how these risks should be handled, finding a way to deliver a simple message from a complex situation is a special task for the risk communicator. However, “dumbing-down” information is not advisable for two main reasons: 1) it may be considered condescending to the consumer, and 2) the risk communicator could risk oversimplifying the message to the point of losing accuracy. It is important to remember that simplifying the message, or putting it in layman’s terms, is not “dumbing down.”

To help audiences clearly understand an issue, risk communicators should create simple, targeted messages (Turner in press):

• Use consistent names, denominators, and other terms throughout the risk (or crisis) situation. For example, do not switch from parts per million to parts per billion. This may throw people off, and they might not notice that you changed your unit of analysis.
• Use graphics and pictures to help the audience understand the risk.
• Avoid jargon and acronyms.
• Answer not only the question “how much?,” but “will it hurt me?” to ensure that people get relevant information.
• Use familiar metaphors to explain how much, how small, or how many. Try to create a mental picture for the audience.
5. STARC: Message Delivery
Timely and Accurate

- Develop messages that are timely, or up-to-date
- Convey accurate information
- Acknowledge evolution of knowledge

PLAN: Questions and Concepts

Next, ensure the message is timely (i.e., up-to-date) and accurate. It is imperative that the message rely on accurate and up-to-date information, and it is important that the audience knows this. If the science has changed over time, tell the audience about this evolution, but reassure them that the message is based on the current body of scientific knowledge.
5. STARC: Message Delivery

Repeated and Consistent

• Repeat key messages up to 3 times for retention
• Ensure consistency among communicators
• Maintain message consistency among various audiences and venues

PLAN: Questions and Concepts

Once the key takeaway message has been presented, repeat it! Sometimes it takes up to three repetitions before people adopt the takeaway message (Covello 2003; Cowan 2000).

Finally, be consistent. First, ensure consistency among various communicators of the same or a related message. Also, be aware that experts from various fields are often lumped together in the minds of consumers. Hearing messages focused on different aspects of the topic from experts in different fields can give consumers an incorrect impression of inconsistency. For example, advice from a registered dietitian (RD) regarding fish consumption for pregnant women may focus on delivering health benefits while minimizing methylmercury exposure, while a toxicologist may advise specific varieties of fish based on lower methylmercury levels without mentioning health benefits at all. Finally, it is also important to maintain message consistency when speaking to various audiences and in various venues.
LISTEN

• Provides avenue for understanding and removing barriers to action
• Listen for
  – Gaps between actual and perceived risk
  – Biases
  – Self-efficacy
  – Media influence
  – Emotions

LISTEN: Questions and Concepts

As discussed in Part One, consumers define risk differently than do scientists. Therefore, listening before, during, and after speaking is the only way to ensure effective communication. Listening can assist in assessing whether there is a gap between actual and perceived risk (e.g., is it accurate, exaggerated, or too low?), and identifying biases or other factors that may be influencing perception.

Similarly, listening provides an avenue for understanding barriers to decision-making or action, or opportunities for empowerment. Recall that thoughts, feelings, and self-efficacy—those things that determine a person’s “rules of thumb” when responding to a risk—are more influential than facts. Awareness of these factors increases the communicator's ability to deal with them.
Media Influence

- High media attention can increase “memorability” of risk
- Has audience been following news on the topic?
- Communicate how the media can influence public perception and decisions

LISTEN: Questions and Concepts

Remember that the volume of media attention can affect public perception of a particular risk. When trying to get a feel for how the public might be influenced by the media, ask if they saw recent news stories about the current event. Ask how much TV, internet, or radio news they listen to. Understand that coverage might affect their knowledge of the issue. Provide some real risk estimate based on scientific consensus. (See slide 28 for ways to demonstrate scientific consensus and support the message.)
Part One discussed several emotion-based rules of thumb e.g., “I've always done it this way,” or “That couldn’t happen to me.” To be effective in communicating risk to consumers, ask how they feel or think about the risk in order to assess their underlying emotions concerning the risk. Listen carefully to their responses: are they fearful, angry, or otherwise emotional? Ask consumers whether they feel they are susceptible to the risk. This leads to an understanding of whether the consumer is exaggerating a risk—making it bigger than it is—or is lessening its true impact and therefore not engaging in any preventive behavior.

Anxiety created in a high stress situation can lead to deficiencies in information processing (Turner et al. 2006). When a perceived risk is undervalued, people are less likely to engage in precaution behaviors (e.g., using meat thermometers). In such situations, it is imperative to clearly communicate the severity of the problem and the audience’s susceptibility to the risk. When people perceive high severity and high susceptibility to a risk, they may be more likely—with the proper messaging and self-efficacy—to engage in preventive behaviors. To affect the desired behavioral outcome, the risk communicator must be prepared to stimulate the audience’s sense of efficacy without unnecessary fear.

Explain to the audience the most likely outcomes of the risk if no counter measures are taken. Provide appropriate evidence to back this up this message. Then share a compelling story of what happened to someone who did not engage in a risk-avoidance behavior. Finally, tell them about someone who understood the risk, took appropriate risk aversion actions and experienced a positive outcome.

What if the consumer has exaggerated his/her risk? The risk communicator’s response should focus on the relatively low probability of the risk outcome if preventative steps are taken. “Show” the audience how low the probability is using compelling supporting evidence. Be empathetic to the audience’s stress, but provide firm reassurance, through evidence, that their perceptions are inaccurate.
CARE

• Build trust
• Communicate with concern
• Communicate with empathy

CARE: Questions and Concepts

Caring about the public's concerns round out the PLC approach to risk communication. It involves building trust, and communicating with concern and empathy.
Demonstrate Credibility: Expertise

- Demonstrating credibility is a critical skill
- Expertise accounts for up to of perception credibility
  - Advanced training, skills or knowledge
  - Informed and up-to-date
  - Authoritative and assured
  - Ability to take action
  - Intelligence

CARE: Questions and Concepts

Conveying credibility is one of the most important skills of a risk communicator. Credibility is made up of multiple components (McCroskey 1966); of particular interest for this module are expertise and trust. Covello (2003) suggests that a great deal of an audience’s judgment of a communicator is based on expertise.

Research (Covello 1992) has revealed that consumers perceive individuals as “experts,” such as yourself, when they exhibit the following traits or qualities:

- **Training/Skill**: Experts have an advanced knowledge and/or a degree(s) in the area being spoken about and/or specialized skills. For example, a registered dietitian (RD) who has extensive experience counseling children with food allergies has both the training and specialized skills honed by years of working with this particular population to be considered an “expert” on food allergies in the pediatric population.

- **Informed**: Experts stay up to date on advanced research and are well informed about current information on their topic. For example, an extension professional who specializes in food safety topics may receive news alerts from the FDA on these issues, and subscribe to specific magazines, journals, or Listservs that relay the latest research on these topics.

- **Authoritative**: Experts speak with authority and act assured in their knowledge. Authority is conveyed through both the content and the quality of communication.

- **Ability**: Experts often have the ability to take action; that is, they are in a role to do something about the risk. For example, a public health official who has the ability to communicate about contaminant and empower the public to avoid it would be perceived as an expert.

- **Intelligence**: Experts are generally intelligent—and consumers perceive this. Possession and demonstration of the above qualities will also convey intelligence to the consumer.
Trustworthiness, the more dominant dimension of credibility in situations that are frightening or serious in nature, is assessed instinctively by the consumer. Empathy and caring is assessed within the first 30 seconds of communication. Consistent with this finding, it has been documented that nonverbal cues impact trust, and therefore credibility (Covello 1992). For instance, people who talk slowly are often believed to be less educated about an issue. This belief can be exacerbated if the speaker uses “umm’s” and “ahhh’s” a lot in their vocal patterns. Speakers who make eye-contact (without staring) are viewed as more trustworthy. Speakers’ gestures also convey important messages. Leaning on a podium, folding of arms, or being generally “closed off” are viewed as negative behaviors. Use of open gestures, such as open arms and relaxed eye contact, contribute to the perception that a speaker is trustworthy.

However, the most important determinants of trustworthiness are based on message content. The consumer assesses whether the communicator has demonstrated an unbiased approach, and whether he or she is subsequently proven to be credible.

It is also noteworthy that trustworthiness is contextual. In other words, conclusions about one communicator may be different among different audiences and in different situations. Therefore, message delivery, as well as message development should be customized to the audience. Certain situations and audiences require particular attention to building trust.
Trustworthiness

• Practice
• Ensure accuracy
• Acknowledge uncertainty
• Convey credibility
• Communicate as early and completely as possible.
• Be transparent

CARE: Questions and Concepts

To build trust, the communicator should employ the following approaches:

• Practice speaking in order to do so with appropriate tone, pace, and body language.
• Answer questions with confidence. Take time to follow up with a complete response, as necessary.
• Acknowledge uncertainty. Facilitate public understanding that science is a process or continue to use the word “evolve”.
• Build audience confidence in credibility by addressing training, skills, and authority directly. Convey qualities of being informed, authoritative, and intelligent through adequate planning and listening.
• Be forthcoming with information and involve the public as early as possible – be transparent.
Communicate with Concern

• Create *outcome involvement*
  – Convince the audience the issue will directly affect their lives
  – Greater motivation to avoid the risk

• Practical ways to communicate concern
  – Show up early and stay late
  – Keep promises
  – Provide contact information and resources.
  – Listen
  – Address the audience’s anger and concerns regarding the risk

CARE: Questions and Concepts

A messenger who can connect with the audience on a personal level will be most effective. This is known as creating *outcome involvement* (Johnson & Eagly 1989). Outcome involvement refers to how much the audience feels that the issue at hand will directly affect their lives. The more the audience feels involved in determining the outcome of the risk, the greater their interest will be in the communicator’s message, and the more likely they will be to act. Soliciting concerns from the audience and genuinely listening can help the audience to feel involved in the process. The communicator should then address those issues with sincerity. Empathy is also a particularly important skill when perceived risk is exaggerated. In these situations, the goal is to calm the consumer.

Practical ways to communicate with concern and empathy include the following:
- Show up early and stay late. Show the audience that their questions are valid and will be addressed. This communicates commitment to their concerns.
- Keep promises. Don’t promise something that cannot be delivered.
- Provide contact information and resources for obtaining more information.
- Listen.
- Address the audience’s anger and concerns regarding the risk.
Putting It All Together

• PLC: PLAN, LISTEN, CARE
• Tailor the message to the audience’s needs
• Emphasize relevant information and practical steps to avert risk
• Use plain language
• Clearly acknowledge uncertainty

Putting it All Together

When communicators tailor their message to the audience’s needs based on their perspectives, emphasizing relevant information and practical steps that the audience can take to avert a risk, the message is sure to be more effective. Risk communicators should use clear and plain language, while taking care to clearly state the existence of uncertainty and avoid trivializing the concern. Remember:

• PLAN: Plan a communications strategy with a communication goal, messages, and steps consumers can take to avoid the risk. Remember to accept ambiguity and keep it simple.
• LISTEN: Listen for gaps between actual and perceived risk, biases, media influence and emotions.
• CARE: Demonstrate credibility, build trust, and communicate with concern and empathy.
Summary

- Communicating risk presents challenges and opportunities
- Risk communicators can help people make effective decisions by overcoming biased views of risk (e.g., “rules of thumb”)
- 3-step PLC process provides guidance for developing the message in a competent manner
- Risk communicators can promote consumer confidence to make effective decisions

Communicating about risk presents unique challenges and opportunities. Risk communicators have the opportunity to help people make effective decisions—decisions that can help people improve their health, reduce risk, and improve quality of life. The challenge is that people are not always rational when it comes to assessing their own risk. Often, they use “rules of thumb” that can lead them to biased and inaccurate risk perception. Thus, risk communicators must provide messages that help people overcome these biased interpretations of their risk, and instead assess information from a less biased perspective. To do that, risk communicators have to provide risk information in an effective and competent manner; they can do so by following the three-step PLC (or PLAN, LISTEN, CARE) process presented in this module.

Risks are inherent in every day life. By adhering to the principles presented in this module, risk communicators can influence consumer confidence and actions in response to potential risks.
For Further Reading

- National Center for Food Protection and Defense/IFIC Risk Communications Training Modules
  http://www.ific.org/riskcommunication/index.cfm

- Interpreting and Communicating Science

- 2009 IFIC Foundation Food & Health Survey


For Further Reading

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Bibliography

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