PREPARING MESSAGES

Despite the complexity of risk information, this can be understood easily if it expressed simply, using terms that everyone is familiar with. In this way, the population will get an idea of the risk and how they can act in order to protect themselves. On the other hand, however, it often happens that when information is simplified a complete perspective of the problem is not communicated, and this is necessary if objective judgments are to be made.

Many scientists think that giving technical information to the public may lead to the audience seeing the risk in the same way as experts see it. Nevertheless, it can be said that although the fact that information is supplied makes a difference, this does not suggest that the information *itself* necessarily makes the difference.

The objectives of the risk communication plan are the starting point for the preparation of the program, its evaluation, and the preparation of the messages.

The objectives must be realistic; they must be clear and measurable so that goal compliance may be evaluated. One objective could be that people take preventive measures to protect themselves from atmospheric pollution; another could be that a group of workers understand how to use the appropriate protective equipment. The design of the messages should be such that the receiving community will change its conduct to meet the Plan's goals.

The first step in preparing messages is to know the audience, be familiar with their social, cultural and economic characteristics, and understand the experiences they have had in their lifetime. For example, the technique you use to communicate risks to a community that has suffered the impact of an accident will be different from the method used for a population that has not experienced this kind of problem, because the former will have a strong feeling of outrage. It is also important to know the level of information being handled. This makes it possible to design and present your messages based on: a) what is already known; b) what the population want to know; c) what the organization or institution wants them to know.

When preparing a risk communication message, we need to know the audience's perception of the risk. If we do not have this information, we will have to try out several different messages with focus groups representative of the audience. Many risk communication messages fail simply because those who prepare them do not know what their audience think and feel abut the risk in question.

The factors that determine how a person interprets a risk communication message are rather vague. As a result, those who design and disseminate risk messages cannot predict exactly how they will be interpreted or what influence they will have;

however, there are some useful recommendations that can be applied in the risk communication process.

Recommendations:

Materials easy to understand are written in clear language and designed in a simple format.

A message should:

- Emphasize the information about the actions that the individuals should carry out.
- Be written in clear, simple language.
- Respect the audience and their concerns.
- Inform the public involved.

For information to be complete, it must have five basic elements:

1. Nature of the risk.
2. Type of benefits that can be obtained by reducing the risk.
3. The options available.
4. Uncertainty about the risks and benefits.
5. Risk management aspects.

When technical information is transmitted, certain comparative aspects should be considered:

1. Detailed versus brief discussion.
2. Variation of detail with regard to type and quantity.
3. Neutral information versus alarming or reassuring information.
4. Effect of the technical information on the perceived risk versus size of the audience.
5. Technical information versus scientific certainty.
6. Potential Intervention variables.
7. Channel transmitting the technical information.
8. Clarity when mentioning technical details.

Trust factors of information

Less reliable	More reliable
One or few observations	Many observations
Anecdotal evidence or case history	Scientific study
Unpublished	Published and revised by an editorial team
Not repeated	Replicable results
Non-human subjects	Human subjects
Results not associated with the hypothesis	Results that prove the hypothesis
No mention of limitations	Discussion of limitations
No comparison with previous results	Related with studies discussed previously

The accuracy of a message is affected by:

- ✓ Credibility of the source.
- ✓ Previous statements made by the source that do not back up the present message.
- ✓ Contradictory messages from other reliable sources.
- ✓ Real or perceived incompetence of the source.
- ✓ The way the information is presented.

Handling uncertainty

Over the years the public has learned that science can make mistakes. Therefore the certainty of science and the value of decision-making based on science are debatable.

Uncertainty is a topic that has to be dealt with in risk communication. The public is able to understand the concept of risk and should be clearly informed about the uncertainties involved. This will increase the credibility of the sources of information.

Typically, when decisions have to be made in situations of scientific uncertainty, there is a lack of certainty about the facts, and controversy regarding values and urgency. It has been said that decision-making when there is scientific uncertainty implies the need to make difficult decisions based on weak facts.

The evolution of risk communication from a one-way transmission to a two-way flow where information is shared, is critically important when uncertainty is one of the predominant features of the risk. In such cases the decision-making process should include the points of view of both the expert and the lay population. This will give the process a much better chance of being successful. It has been suggested that interaction with the public during decision-making in cases of scientific uncertainty

changes from communication to negotiation. *Communication* implies a two-way conversation to share information and points of view, while *negotiation* can be regarded as something more interactive, involving multiple forms of knowledge and experience. Negotiation forces the participants to deal with ambiguities and uncertainties and to accept that both the knowledge of the experts and that of the lay public on a particular risk may be insufficient or irrelevant. Experience has shown that risk communication which gives a false sense of security about a risk is bound to be counterproductive in the medium and long terms.

The message map

In recent years, Covello has developed a tool for the preparation of risk messages, known as the message map. A message map is a detailed description of hierarchically organized answers to the anticipated questions or concerns. It is a visual aid that gives a panoramic view of the organization's messages about significant concerns or controversial aspects.

The message map helps us to meet eight risk communication goals:

1. identify partners early on in the communication process;
2. anticipate the questions and concerns of the partners before they appear;
3. organize our thoughts and ideas and prepare messages in response to the concerns and questions of the partners;
4. develop key messages and supporting information in a context of clear, concise, transparent, and accessible work;
5. promote an open dialogue about the messages both inside and outside the organization;
6. provide the spokespersons with a user-friendly guide;
7. make sure that the organization has consistent information and messages, and
8. make sure that the organization speaks with a single voice.

The generation of a message map can be as important as the finished message. Prepare your message map with input from experts in different topics, for example, scientists, communication experts, and persons with experience in handling policies and law. This will enrich the points of view on the problem or concern within the organization.

Often, the lack of information in a message map is an early pointer to a lack of information in the message itself, so it gives us an opportunity to rectify any gaps in the information in time. The message map also provides keys for us to make changes regarding strategies, policies, or performance.

There are seven steps to preparing a message map:

1. Identify the partners (interested or affected parties, or persons who can be influenced) with regard to a topic or aspect of great concern. Subsequently, the partners may form groups according to the potential effects and their credibility for other partners (for example, victims, their families, individuals directly affected, emergency response personnel, public health personnel, medical and paramedical personnel, the mass media, etc.).
2. Prepare a complete list of specific questions and concerns for each major group of partners. These questions and concerns come up in the investigation and involve the analysis of the contents of the media (press, radio, television), Internet sites, document reviews, interviews with experts on the topic, focus groups, surveys, etc.
3. Analyze the list of specific concerns and see if you can identify common groups of underlying general concerns. Case studies reveal that most aspects of great concern are associated with not more than 15 to 25 underlying general concerns. As part of this step, it is also considered useful to create a matrix or table matching the partners (in order of priority) with their concerns.
4. Prepare key messages in response to the concerns (general and specific) of the partners. These key messages are developed in brainstorming sessions with a group of message-mapping experts (an expert on the topic to be addressed, a specialist in communication, an expert on policies or legal and administrative aspects, and a facilitator). During the brainstorming sessions, key words emerge for each message, and these serve as an aide-mémoire. Each message should have no more than three key words. The messages should be based on what the majority of the audience needs to know, what the majority wants to know and what they are most concerned about.
   The development of the messages should follow the same principles as risk communication. For example, in the event of a crisis, most people are so upset that they find it difficult to listen, understand, and remember information; “mental noise” can reduce a person’s ability to process information by more than 80%. Thus, the challenge for risk communicators during the crisis is to overcome the barriers which this noise creates, produce accurate messages for different audiences, and achieve the greatest possible effectiveness in the communication, within the constraints inherent to the situation.
5. Prepare evidence and facts to support every key message. For support information, follow the same guidelines as for the construction of key messages.
6. Conduct a systematic trial of the messages using standard message-testing procedures. The message-testing should start by asking experts on the topic at hand, but who were not involved in the original message-mapping process, to validate the accuracy of the technical information contained in the message map. Subsequently, the messages should be tested with persons representative of the target audiences.

7. Once the message maps have been prepared, deliver them through the trained spokesperson and using suitable media. For example, the message maps can be used to structure press conferences, interviews with the mass media, information-sharing sessions, public meetings, Internet sites, recorded replies in emergency telephone lines, etc.

Message maps are a viable tool for risk communicators, because they ensure that the risk information will have the best possibility of being listened to, understood, and remembered. Perhaps their most important role is to help the agencies develop a group of consistent messages and ensure that the messages are transmitted with a single voice.

The following table gives an example of a message map, indicating to whom the message is directed and which question is being answered.

Example of a message map

Decision-maker: Public at Large **Question: How contagious is smallpox?**		
Premise of message 1	**Premise of message 2**	**Premise of message 3**
Smallpox spreads slowly in comparison with measles and flu.	This gives us time to find those infected and vaccinate all the persons who were in contact with them.	Vaccination within 3 or 4 days of contact can prevent the disease.
Fact 1 that supports message 1	**Fact 1 that supports message 2**	**Fact 1 that supports message 3**
Contagion occurs only when the rash appears on the sick person.	The incubation time is 10 to 14 days.	Persons who have never been vaccinated are the most important ones to vaccinate.
Fact 2 that supports message 1	**Fact 2 that supports message 2**	**Fact 2 that supports message 3**
For contagion to occur there must be hours of direct contact with the contagious person.	Resources for finding the individuals who were in contact are simple.	Adults who were vaccinated as children can still be immune to smallpox.
Fact 3 that supports message 1	**Fact 3 that supports message 2**	**Fact 3 that supports message 3**
There are no cases without symptoms.	Find the persons who were exposed and vaccinate them.	Proper vaccination is available and the supply is being increased.

The three messages that answer the question are in the top row. These messages are written specifically for the audience to whom we want to communicate this information. The messages have been numbered: 1, 3, 2; the most important one is first, followed by the least important, and finally the second most important.

Below each message come three “Facts” that support the premise of the message with additional information. This information serves to clarify details about our messages.

To make proper use of the information contained in each message map, it is important for us to be familiar with it in advance. This helps us to keep the message in the center of attention and avoid giving information that could be misinterpreted, or that gives rise to doubts, or that leads to a different, irrelevant topic.

Perception of the information will always depend on whether we present the *half empty glass* or the *half full glass*. For example, if you hear that a small number of persons have been affected, remember that a large number are not affected, and vice-versa. Such numbers can be presented in many ways, so it is important to use comparisons make sense.

It is also important to include in the message a description of the activities being carried out to reduce the risk, and what exchanges there are when we speak of risks (for example, when we take medicine, there are usually side effects).

When the facts seem confusing, it may be that the information given is wrong or incomplete, or that the person who provided the information had misinterpreted it.

Preparing effective messages

A code is said to be a system of signs structured in such a way that they transmit a meaning for somebody. This is what is usually called the *message*. In any mass communication process the most important element is the message.

Different audience groups (for example, the elderly people in the audience) respond to messages differently, so it is recommendable to manage communication strategies in accordance with the target groups.

The message can have many different forms: it may belong to different sign systems; it may combine two or more of these systems; and, if it belongs to a single system, it may even be of a different nature to spoken language. The complexity of speech shows us the mutual relationships of the different systems of language present in a single message.

The information to be transmitted must be clearly defined, because although many individuals will want to know everything, others will be interested only in knowing whether their situation is safe or not. Reaching a compromise implies a) giving

information about the important facts that people need to know; b) giving basic information to understand those facts; c) providing additional data to prevent misinterpretations, taking special care not to affect credibility; and d) giving answers to the questions and concerns of the public.

When the language is written, the communicator should take extreme care and bear in mind that the reader is alone with his interpretation. In journalistic writing, language economizes words to transmit clearly and concisely the facts converted into news. If we have to code a message for electronic media, we should take into account the synthesis and fleetingness of the message. On radio, the intention when coding is to catch the listener's attention so that he or she will become a person who listens attentively. To do this well, one has to know how to combine the sound codes and linguistic codes in radiophonic sentences that with attractive formats.

Material easy to understand is that which:

- Is visually attractive.
- Is logically organized.
- Can be understood at first reading.
- Uses short sentences.
- Uses singular pronouns.
- Uses the present tense.
- Uses the active voice.

Printed messages, both linguistic and iconic, can effectively help with the prevention, if they are regarded as complements of an integrated action, since they fix the main idea, document it, and recall it.

Graphic material is usually directed to persons who can read and write, unless a picture synthesizes the message without any need for linguistic support, as in the case of well designed caricatures that are sufficiently attractive to send a message to the illiterate population (for example, some pesticide sprays, pre-school-age children, etc).

The picture has to be linked with the idiosyncrasy, culture, and customs of the area. The communicator should bear in mind that there are regions where oral transmission is the habitual way of communication and this is where the language should respond to the needs of the audience.

If we bear in mind that a large part of the population is "visual" (see chapter on *Body Language),* we see how very important it is that the pictures match the message that we want to transmit, besides being clear and attractive, and it is here that the work of the communicator is fundamental. The typography should be selected based on the type of message. Its use should be rational, discreet, but with impact. Sometimes, there is a tendency to overload pictures with text, but this tires the receiver and causes loss of interest.

The layout is another important element in risk communication and it should be properly balanced. Each of the portions of the message has a specific space so that the reader will not lose any sector of the printed communication. The inclusion of photographs, drawings, caricatures, and graphics can have a strong educational impact if it is clear, precise, attractive, and related with the written message.

From the above we can deduce that it is always necessary to try out the risk messages with a group that is representative of the audience. There have been many cases of risk messages that have had practically no impact. It may be that the message was not clear, or that so much information was given that the main message lost importance, that it was not attractive enough to draw the attention of the audience, or that the dissemination mechanisms used were not the most effective. In some cases the message was well prepared, but the means of getting it to the audience were not suitable.

It is common for institutions interested in giving risk information to print universal messages (for reasons of cost and facility), and in this case the same message is distributed to different audiences in different places. However, it is recommendable that the messages be adapted to the receiver without losing the linguistic and iconographic communication.

It is not a good idea to standardize messages, because the receivers have their own particular characteristics (educational, social, cultural) which, as we have seen, influence their risk perception. It is not the same to prepare a pamphlet for the prevention of cholera in an indigenous rural area of Peru as to print a leaflet with instructions for evacuation due to the imminence of a volcanic eruption in a rural area of Mexico, or to draw up protection measures for flooding in Honduras.

The important thing is that the scanty funds available must not be squandered printing pictures or words that will not be seen or read; or, even worse, that are partly read, which would make for misinterpretation of the messages.

There are many options for preparing messages. For example, in rural areas of Asia, puppet shows are used for environmental education and they can be equally effective for risk communication. The puppet show can be a traveling show. It is easy to design and build, and it is “showy” and attractive. The message is constructed by means of a simple script, which enables the audience to provide feedback during the show. This alternative has the advantage of being a recreational activity, so it can be a magnificent tool for risk communication.

Other suggestions are:

- Arrange the messages in groups of messages, in such a way that the most important ones are in the initial and final position.
- Cite third parties who are highly credible.

- Develop key messages and support them with information that indicates important factors of risk perception and of outrage, such as confidence, benefits, control, free will, fear, justice, reversibility, catastrophic potential, effects on children, origin, familiarity, memorability.
- The use of graphics, visual aids, analogies, stories (for example, personal case histories) can increase an individual's ability to listen, understand, and remember more than 50% of the message.
- Balance the negative messages with constructive, positive, or solution-oriented messages, in a proportion of 3:1.
- Avoid the use of unnecessary, indefensible, or unproductive words, such as *no*, *never*, *none, nothing*.

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