



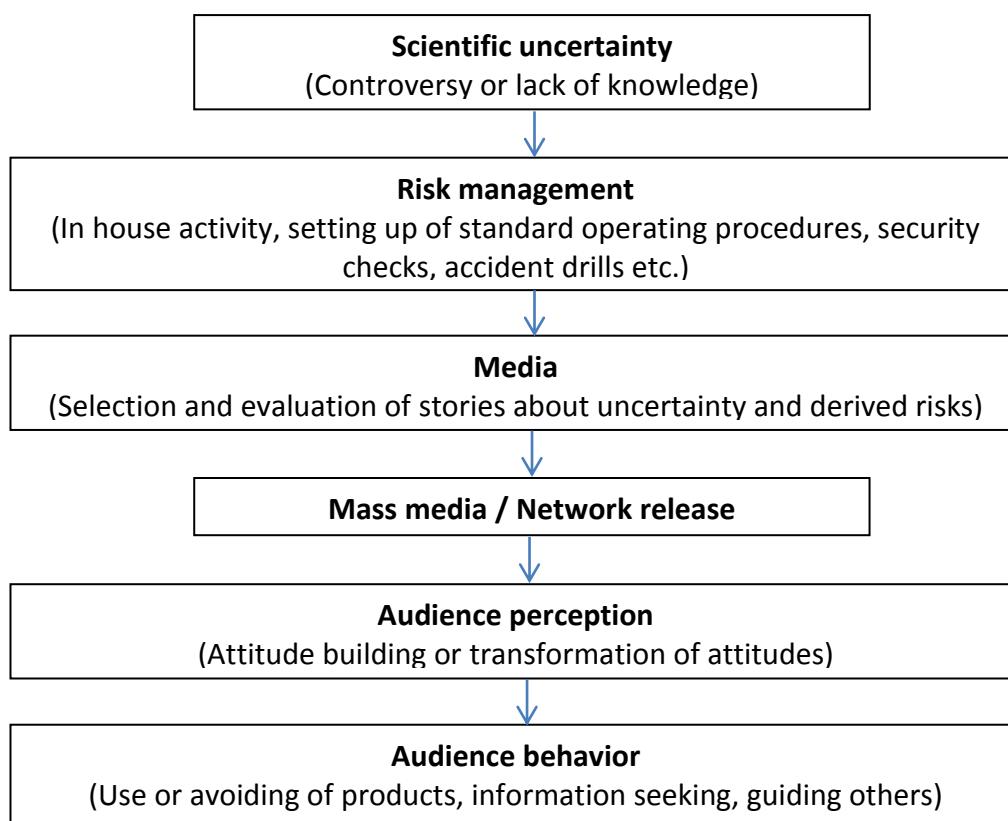
COMMUNICATING SCIENCE, RISK COMMUNICATION AND STRATEGIES IN CASE OF CRISES



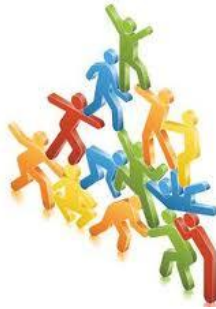
COMMUNICATING SCIENCE IN DIFFICULT SITUATIONS: GUIDELINES FOR RISK COMMUNICATION AND STRATEGIES FOR CASES OF A CRISIS

Ideally, scientific issues are clear and fully understood. Communicating science in such cases often means to raise interest for research. However, scientists are also challenged to communicate with the public in situations where there is a genuine lack of knowledge and uncertainty exists. This gets particularly relevant if there may be a risk for the population. Communicating in such circumstances becomes much more difficult and scientists are usually challenged to make statements in situations of real or perceived risks, since they are trained to make assessments on the basis of full data sets and sufficient theoretical understanding. Risk must be addressed also in situations where this is not the case, so scientists have to learn how to communicate when they have only partial information, but not complete knowledge. This guide is aiming to help in this task. It should serve as a general guideline, but also as a quick reference to refresh key elements (DO's and DON'Ts) e.g. before an interview.

When looking at a flow chart illustrating the process how information is gathered, distributed and shaped, it becomes clear that the media have a key role as translators and multipliers of information. Journalists will do that professionally, but the scientists need to be able to provide them with relevant, useful and understandable information.



RISK and UNCERTAINTY



What is risk? Risks may be clear (electricity is dangerous but is understood and controlled) or they can be merely suspected when there is incomplete information and uncertainty. For example: Sunscreens containing nanoparticles have been targeted as possibly dangerous to health and environment by NGOs. Based on the precautionary principle these products could be banned based on insufficient knowledge about risks of nanoparticles. On the other hand, nanoparticles are in sunscreens for a reason: They efficiently protect against UV irradiation which can cause cancer. Possible risks of nanoparticles have to be balanced against the certain risk of developing malignant melanoma.



Risk communication is a process that increases the validity of perception in terms of decision consequences. It aims to provide an overview of information about risk that is as complete and unbiased as possible. The scientific expert can add a personal opinion, but ultimately the stakeholders will define their own positions. Expert responsibility is to ensure that full information based on the state of the scientific art is available to all members of society. Risk can be communicated to all stakeholders, but journalists are the main interpreters and multipliers.

What is risk communication?

The Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) describe risk communication as: “... an interactive process of exchange of information and opinion on risk among risk assessors, risk managers and other interested parties” (FAO/WHO, 1997).

- A key aspect for scientists: **“other interested parties”**
 - Think about communicating your work in **simple, understandable** terms
 - Try to think about the reduction of uncertainty

Considerations for risk communication

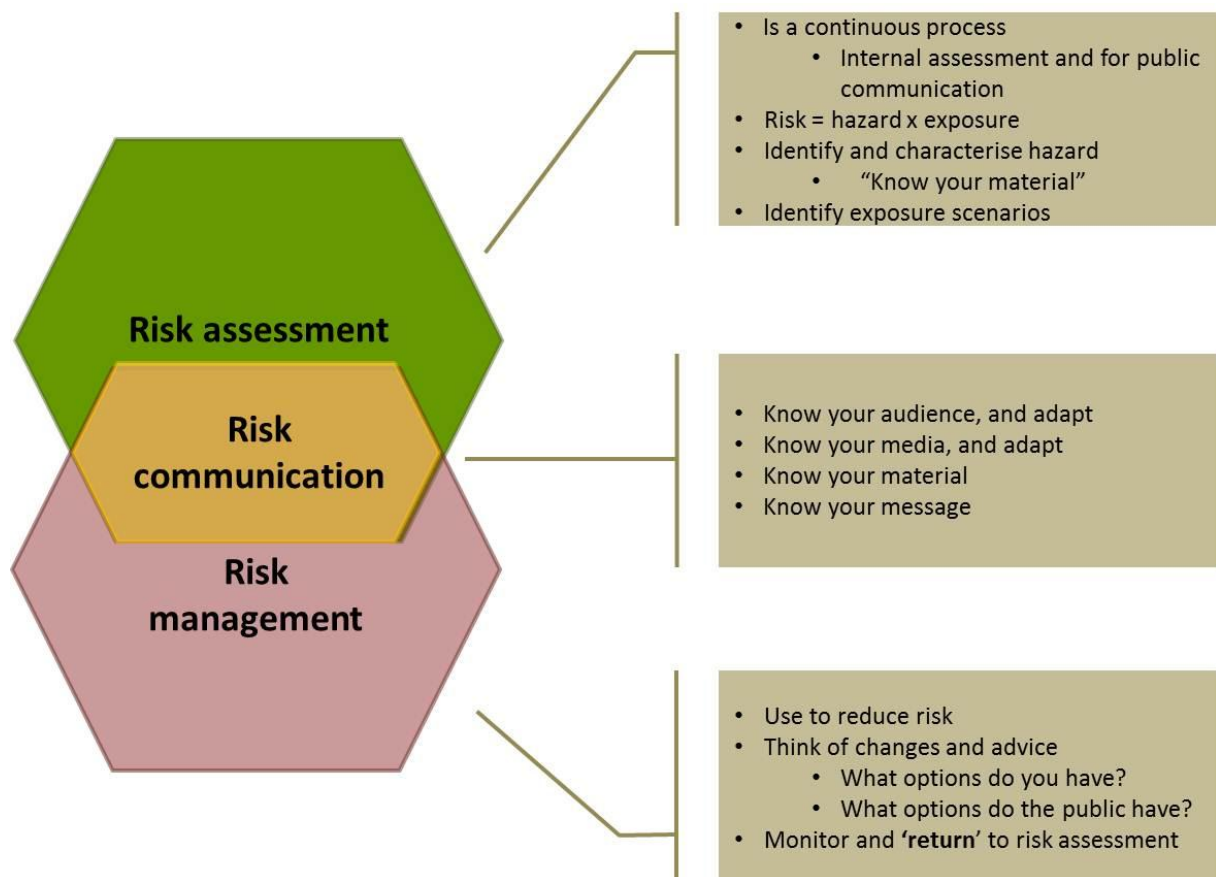
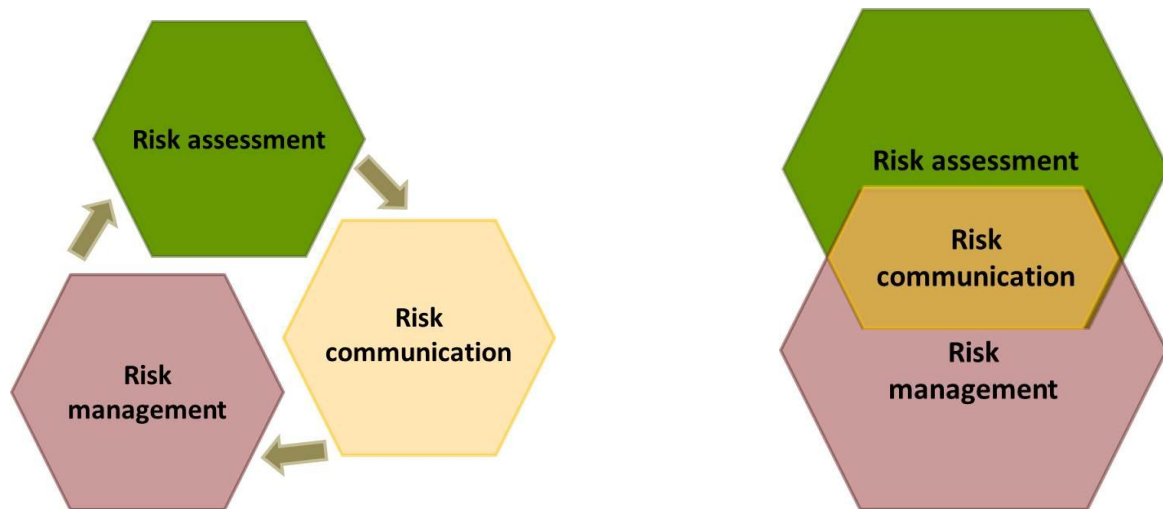
Remember where your announcements and information will end up, and what it will result in:

- Information can be used for
 - internal or public purposes
 - media
 - education
- Therefore statements such as “we don’t have all the answers and science at large is in an area of uncertainty” are acceptable
 - But if you understand that the risk is low, say that the risk is low
- ‘Risk communication’ will often be a result of ‘risk assessment’ and may lead to ‘risk management’



Considerations for risk communication

– the relationship between risk assessment, risk communication and risk management.



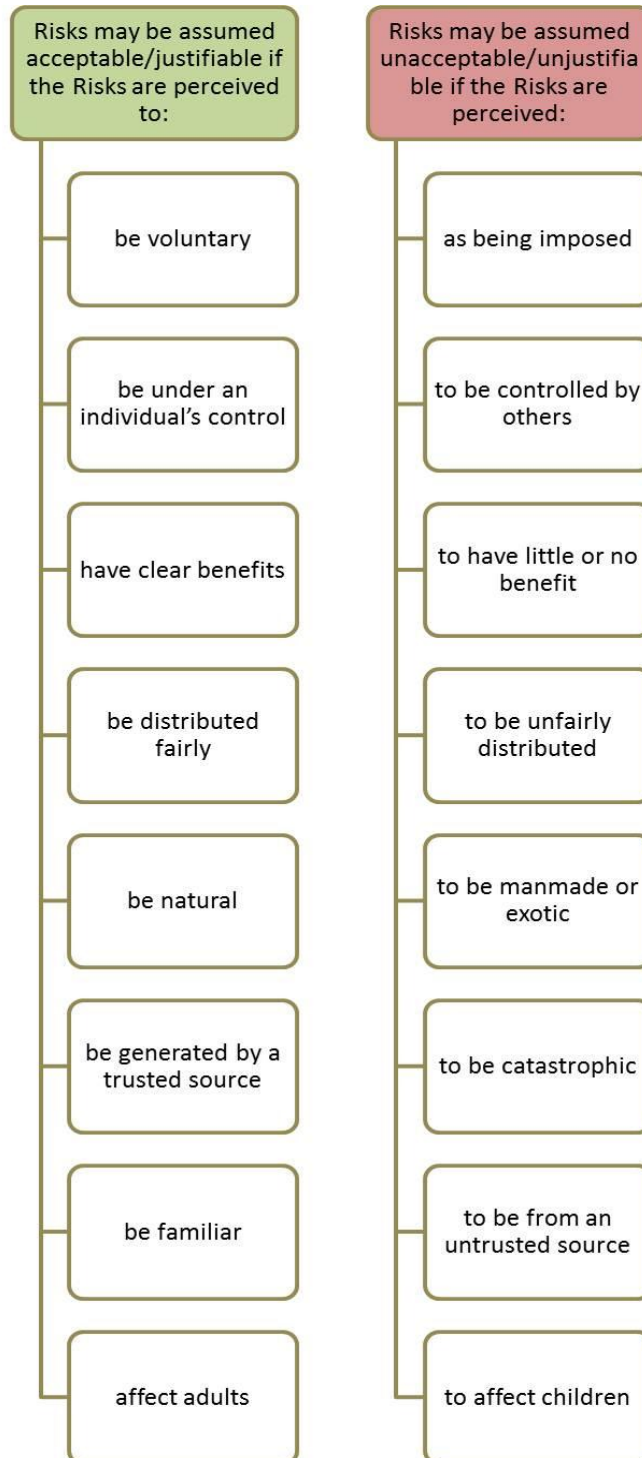
Risk perception

– **factors that influence risk perception.** α Misinterpretation of scientific information, which may often be complex and technical, β Perceptions may change as/when people perceive themselves to be at risk, even if they are not. Theories adapted from Fischhoff et al.: A Primer on Health Risk Communication Principles and Practices. Agency for Toxic Substances and Disease Registry, 1981, and Ropeik, D. “What Really Scares Us,” Parade Magazine, Mar. 30, 2004.



Risk perception

– **factors that designate risk to be acceptable or unacceptable.** Theories adapted from Fischhoff et al.: A Primer on Health Risk Communication Principles and Practices. Agency for Toxic Substances and Disease Registry, 1981, and Ropeik, D. “What Really Scares Us,” Parade Magazine, Mar. 30, 2004.



Media communication



The first key rule for media relations: Be available!

- always be ready to give an answer to journalists
- establish contacts with journalists, offer them interesting stories if you have them and keep in touch
- never refuse an interview no matter what kind of journal or newspaper
- if you need time to prepare, ask them to call back, but answer at the time agreed
- promise to contact them as soon when you have new information
- if you do not feel competent about a subject suggest to get the journalist in touch with somebody else who is more competent
- remember that the story will go ahead whether you contribute or not
- act with courtesy and professionalism
- do not refer to the reporter by name during your answers
- do not expect practice questions – journalists want your spontaneous response
- provide background information before the interview which is interesting for the journalist in telling a story

If you talk in to a microphone, be clear and precise.

- listen to the questions of the journalist, address them, but do not hesitate to insert additional statements which you feel are important
- avoid complicated scientific definitions and acronyms
- no lab jargon
- prepare a list of words that you would use to speak to a specialist and avoid using them in the interview (see helpful template down below)
- if you really need to use a special scientific term, explain its meaning very simply
- if you don't know something, say so, define clearly your area of expertise
- do not use too long sentences – remember that your TV statement may be at best a 10 second sound bite, so provide useful, short statements
- KISS: Keep It Short and Simple
- finish with a take-home statement – maybe this will be good sound bite

In general, be confident.

- be clear about your knowledge and position
- your confidence enhances your credibility and ensures the listener about your capability of dealing with specific problems
- speak slowly / clearly / lively – be yourself and be authentic
- breathe / pause easily



Be calm / emotionally /authentic:

- keep calm and don't react emotionally to provocations
- if you feel provoked by a journalist, stay calm and think about the audience since their opinion is the most important
- you gain credibility by showing your natural emotions and enthusiasm when discussing your research
- keeping calm will give people confidence in your competence
- never read something from a document (exception: quoting numbers)
- don't create visual distractions with gestures, clothes or appearance
- dress conservatively, business dress or lab suit

Be personal but don't be too personal:

- try to be yourself so that the audience gets a feeling for you as a person
- avoid giving your personal opinions, but if you do, make it clear that this is a personal statement, otherwise stay professional in every way (stick to the issue)
- relating your work to a personal experience helps to communicate your motivation for your project
- if you are the spokesperson of a company act accordingly, but otherwise make clear that you are a neutral and competent scientist with no vested interests
- if you have vested interests (like a consultancy with a company) inform the journalist about that to prevent even the appearance of a hidden conflict of interest
- if you expect problems it may be useful to bring some people along as moral support





Your TV appearance

Natural body language:

- try to relax and be as natural as you can
- don't restrict your body language but do not gesticulate excessively
- don't be stiff
- control your breathing and stay calm
- don't give the impression that you would rather run away (stepping back and forth, fiddling with objects, backing away from a microphone)
- raise your head , don't talk 'into' yourself
- look at the interviewer, not at the camera or the audience

Use examples / pictures:

- try to explain your work in simple words and if appropriate use a clever analogy to capture the imagination of the listener, for example; bacteria or virus are like a Trojan horse hiding inside the human body waiting to be released to create havoc
- use allegories or simple comparisons
- use examples with local affiliations (in our city xx people suffer from that disease every year ...)
- for print media, suggest illustrations for the story

Use an understandable language, the golden rule:

- explain your project like you would explain it to your parents or a friend



Don't be afraid to correct:

- if you feel the journalist doesn't understand what you are saying, then it is likely that the audience has the same problems
- make your point clear and don't hesitate to be redundant, repeat in different but simple words what you were saying
- if you feel you have been misunderstood make clear what kind of misunderstanding it is and rephrase your comment
- if at all possible, ask to see the report beforehand. This is often possible with print media and gives you a chance to correct errors
- ask if you get to be quoted or if they only want background information



Print Media

More time to explain what you want to say. This can be more like a conversation.

- Suggest illustrations for the story
- Suggest other people to talk to in order to get a complete picture
- Check that the journalist has all the names, addresses etc. correctly down
- If you use examples try to find local ones
- Ask if you get to be quoted (or only are asked for background information)
- If you have the choice of proofing the text before publishing, it's perfect (Interviews by email offer control options)



Communicating with politicians, high level management and potential future employers

Remember, they will have even less time than journalists.

- Practice the **elevator pitch**: explain the main message in 15 seconds
- Explain what their benefit would be, e.g. creating jobs, improved healthcare, cleaner environment, cheaper production – whatever is in their own interest
- Know your own interest in the conversation: Do you want something from these people or will you just give them information which they need? If you have a direct interest, state it clearly.
- leave your contact details

FORBIDDEN WORD LIST

Which words do you need to tell your story that would not be understood by your dear old mother, your neighbor or your niece age 13? Write them down and define alternatives beforehand. You can use both words side by side if you fear to lose precision. Examples:

Dendritic cell = Immune cell which is usually close to the skin.

Escherichia coli = Harmless bacterium living in our guts.

Osteopetrosis = A rare bone disease where the bone gets harder and harder, not to be confused with osteoporosis where the bone gets softer.

Vaccine = ...

Apoptosis = ...

...

Use the forbidden word list to prepare in translating your message.

Forbidden word	Alternative word

FAQ LIST

Learn from everyday examples to anticipate questions. Assemble a FAQ list and compose answers at your leisure so they will be there in a hurry. Examples:

Are nanoparticles dangerous? There are so many of them that is not possible to answer yes or no, it's like asking whether chemicals are dangerous – some of them are, but our body consists of chemicals.

Are allergies increasing, and why? Yes, they are increasing, and scientists think that there are numerous reasons for this and not just one. (Clarify in follow up question.)

Are vaccines not just there to make money for big pharma? No, actually vaccines are usually cheaper than treatment of the diseases which they prevent.

Frequently asked question	Suitable answer

FOR QUICK REFERENCE

	DOs		DON'Ts
✓	Be yourself, be authentic (natural body language)	✗	Don't talk too fast
✓	Be calm and confident	✗	Don't get offended or take questions / implications personal, stay calm if provoked.
✓	Be clear and precise	✗	Don't use technical terms (if you have to, explain them!)
✓	Keep your sentences short and simple	✗	Don't sound evasive
✓	One message per sentence	✗	Don't be afraid to say „I don't know“ / „Science does not know“
✓	Include a take home message (key statement)	✗	Don't give a complete scientific lecture and don't drift from the point
✓	Make clear what you are an expert about	✗	Don't talk in a way that seems strictly rehearsed
✓	Have a few key phrases prepared in your head	✗	Don't be rigid but also don't gesticulate wildly
✓	Mention both risks and benefits (if both exist) and compare risks to other risks, use examples / pictures people can relate to	✗	Don't be offended if you do not find your quotes in their full length or if they are completely out of context
✓	Unless you are, make it clear that you are not a spokesperson for a company but a neutral and competent scientist with no vested interests.	✗	Don't play a role you don't like to play or you don't master – it shows!

FOCUS ON PERCEPTIONS OF YOUR AUDIENCE

An effective communication strategy must build and maintain trust. Scientists are (not always but often) seen as trusted experts. Maintain that status. Demonstrating the qualities of openness, transparency, responsiveness and willingness to consult can help build trust.

Trust is slow to gain and quick to lose. Work hard to maintain it.

Perceptions shape the way in which people make judgments. Be aware of any historical, political or otherwise underlying issues but try to steer clear from them. However, do not ignore them, since you may lose both trust and attention if you fail to take account of public perceptions of risk

It may not be possible to predict accurately how people will respond to an issue every time. However, by improving your understanding of what motivates public reactions, you will be better able to understand and anticipate their views and reactions to new information and proposals as they arise. You need to work to understand their views in much the same way as you are asking them to work to understand your “technical” view of the risks.

Perceptions are the filter through which people view everything and they are often emotionally driven.

People’s perceptions are their reality, and this is the reality in which the communicating person or organization must operate.

Factual information alone will not satisfy.

You can put a risk in context by comparing it with other risks, but be aware that people will react to and accept different types of risks in different ways. Voluntary risks are much more accepted than risks for which people feel that they have no control over them. A daring mountain climber may reject risks about fluoride in drinking water. It may be better comparing voluntary risks with other voluntary risks (the risk of driving a car) and involuntary risks with other involuntary ones (the risk of a lightning strike).

Stakeholders need to feel that their opinions are being taken into consideration and that they are being treated as a partner in the process. Give them the opportunity to express their opinions and ensure that their views are heard and taken into account.



CRISIS COMMUNICATION

An accident leading to a crisis will always happen unexpectedly and will catch you off guard. Depending on the situation, you might end up being the person that has to deal with the situation. In such a case, the following guidelines and rules should help you to manage communication during the crisis. As with anything else, being prepared is very important and will make the situation much less hostile.



Important 3 R's

- Regret: be real and emotional. Offer your condolences. Do not take responsibility yet.
- React: Promise to investigate the matter, and announce a time point when you will provide more specific information.
- Re-inform: Stick to your promise and inform the public. If you can't make it in time, inform the journalists about this and get back to them later.

General Guidelines

One source rule: Help to define the internal communication pathways first of all. There can be only one source of information, otherwise you risk chaos.

Framing: Try to be first out with your Statement. In this way you can frame the communication process and not leave this to people who may want to discredit or attack you.

Existing knowledge: Find out what the media know and from what source. They may know more than you.

Facts: Base your sentences in proven facts. Don't speculate. Give the information you currently have and promise to provide more information when more facts are clear.

Transparency: Make statements in the way it seems you are not hiding something. Many answers will be unknown in an acute crisis, but make clear what is unknown and assure people that a full investigation is ongoing. Also make sure that this is really the case.

Personal response: Address the fears and sorrows of the citizens, take them serious and show that you share them. You are a spokesperson, not a machine.

Crisis communication plan: Prepare in advance a crisis communication plan for your institution with all the information required in case of a crisis.

Crisis communication fact sheet: Same thing as the plan, but a brief version distributed to all the members of your institution *before* anything has happened. It should clarify communication pathways and internal contact persons, as well as designated spokespersons.

FAQ list: Of course the FAQ list will be less specific than for normal risk communication, but some questions can be foreseen. Assemble them and try to prepare a response fitting to the specific situation.



CHECKLIST FOR CRISIS COMMUNICATION

- 1. Express empathy/regret
(e.g. "I understand that you are confused, anxious, or frightened")

- 2. Clarify facts (only fill in VERIFIED facts and skip if uncertain)
WHO

WHAT

WHERE

WHEN

WHY

HOW

- 3. What we don't know

- 4. Process to get answer

- 5. Statement of commitment

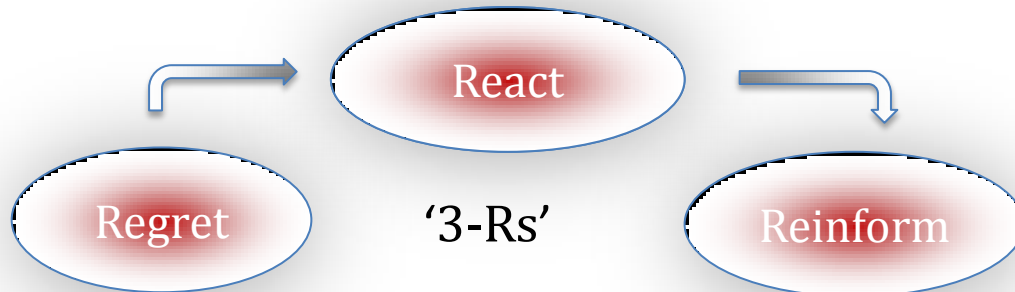
- 6. Referrals (if any)

- 7. Next scheduled update



THE CRISIS SHEET

A crisis is always unexpected but it has happened now. Communicate about it and bear in mind the 3-R rule. Refresh critical DOs and DON'Ts. Take a deep breath. Then go out there and talk.



	DO
1.	Collect information (Facts/Facts/Facts)
2.	Have a single center of information to prevent inconsistencies in giving information
3.	For unknowns, say that every effort is made to find out and make sure this is true
4.	Give journalists a time when you will next inform them and stick to this time, even if there is not much new
5.	Express your emotions as a human being close to a disaster
6.	Ask for expert's help if you are in serious trouble
7.	Use the crisis response plan of your institution if one is available

	DON'T
1.	Panic
2.	Refuse to give an interview
3.	Inform individual persons instead of everybody concerned
4.	Give information unless you are the spokesperson, refer everybody to the central information center
5.	Give the impression of hiding something
6.	Try to pin blame on somebody
7.	Speculate, assume, suggest, hypothesize

These guidelines were collected by the fellows of two FP7 ITN projects; EIMID-ITN and NanoTOES, based on a workshop held from 16.-18. April 2012 in Salzburg, Austria. We appreciate the valuable guidance given to us on this occasion by professional journalists and communication experts. This document can be freely distributed in unaltered form.

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