



National Collaborating Centre  
for Infectious Diseases  
Centre de collaboration nationale  
des maladies infectieuses

## Purple Paper

### OAHP Risk Communication Workshop Toronto, Ontario February 28 – March 2, 2011

The Ontario Agency for Health Protection and Promotion (OAHP), in collaboration with the Dalla Lana School of Public Health at University of Toronto, hosted Drs. Peter Sandman and Jody Lanard to provide a three-day risk communication workshop in Toronto. This issue of the *Purple Paper* presents the “Risk = Hazard + Outrage” formula for risk communication created by Dr. Sandman and highlights some of the key elements of his approach discussed at the workshop. For more in-depth explanations, illustrative case studies on how “Risk = Hazard + Outrage” is applied, and other risk communication resources, visit <http://www.psandman.com/>.

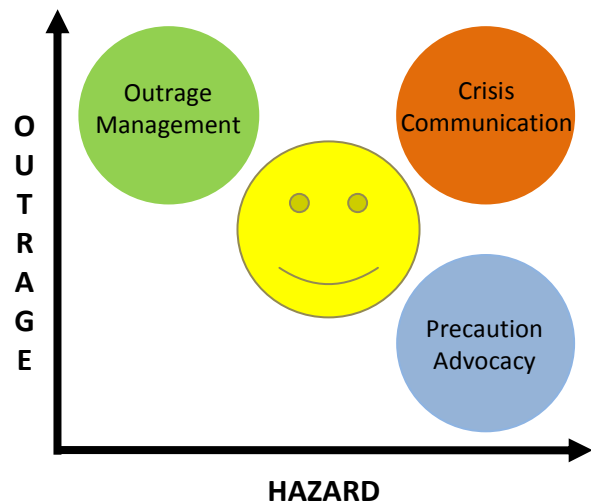
#### Risk = Hazard + Outrage

The goal of risk communication is to influence the recipients of risk messages to effect the desirable behavioural change and to take protective actions that are in proportion to the presented risk. The dilemma is that risks that are potentially damaging are not usually alarming to the public. Dr. Sandman suggests that this weak correlation between public concern and actual harm is the result of a definitional dispute between technocrats and the general public. Technocrats define and calculate risks based on statistics; the general public calibrate and rank the same risk based on their feelings towards it. In other words, for the general public, “Risk = Hazard + Outrage”, where hazard is the “real” harm and outrage is the all-encompassing term to describe all emotion-laden factors that affect the way we perceive risk.

There are many contributing factors to the level of outrage experienced by the public with regard to a specific risk situation. For example, risks from activities considered to be *coerced* (e.g. chemical

spill from an industrial facility) are judged to be greater, and therefore are less acceptable, than risks from activities that are *voluntary* (e.g. smoking). Risks from activities that are seen to be *industrial* or man-made (e.g. radiation from waste disposal sites) are judged to be greater and are less acceptable than risk from activities that are natural (e.g. radon). Risks from activities that are relatively *unknown* or have a high degree of uncertainty (e.g. genetically-modified foods) are judged to be greater and are less acceptable than risks from activities that appear to be relatively *well-known* to science (e.g. trans-fats in processed foods). The list of “outrage factors” goes on. However, the important points are that if outrage is indeed a function of risk as indicated by the “Risk = Hazard + Outrage” equation and if outrage is multidimensional, a broad range of risk communication options becomes available to the risk communicator for adjusting the target audience’s perception of risks and for resolving risk controversies.

According to Dr. Sandman, there are four kinds of risk communication based on the level of hazard and outrage in each risk situation.



When hazard is high and outrage is low in a risk situation, the task is “precaution advocacy”, alerting an indifferent and inattentive audience to a serious risk.

When hazard is low and outrage is high, the task is “outrage management”, to reassure an excessively upset audience about the small risks.

When hazard and outrage are both high, the task is “crisis communication”, helping an appropriately distressed audience cope with serious risks.

When hazard and outrage are both intermediate, the risk communicator is in stakeholder relations mode (or the “sweet spot”), dialoguing with interested and concerned people about a significant but not urgent risk.

Stakeholder relations is the easiest of the four risk communication environments, and it was not discussed further in the Workshop. In accord with the Workshop, this synopsis will address the other three risk communication paradigms.

### Techniques Risk Communicators Use

The objectives of precaution advocacy, outrage management and crisis communication are very different, and effective risk communication in these three areas requires very different strategies and skills. In addition to correctly diagnosing a given risk situation, it is also important to gauge the target audience in terms of their pre-existing knowledge, values, feelings, and beliefs. There are four “games” risk communicators play depending on the audience’s pre-existing views.

1. *Follow-the-leader: Talking to people with no opinion.* State the case as it is but make it interesting. Although follow-the-leader is the easiest of the games, swaying people with no prior opinion also means that maintaining their interest and attention can be difficult. The main obstacle to follow-the-leader is audience apathy. However, once the risk communicator overcomes the initial apathetic inertia, the audience will not likely show any resistance.
2. *Echo: Talking to people who agree.* “Preaching to the converted” can serve several purposes – to remind the audience that they agree with you, to reinforce ideas that you and your audience share, to arouse your audience into action congruent with the shared belief. Be careful not to blandly repeat something the audience already know, rather engage them to take the next level of action.
3. *Donkey: Talking to people who disagree.* When a risk communicator states his/her case as is to the message receiver (the opponent) who strongly

holds the opposite view, and directly and bluntly rebuts the opposite view in the process, both the communicator and the receiver are acting as donkeys. In this instance, not only will the communicator fail to dissuade the receiver from the opposite view, the communicator will in fact rekindle and reinvigorate the receiver’s view. Playing “donkey” is a two-staged process. The risk communicator must first validate aspects of the opponent’s belief that are true, thus legitimizing the opponent’s reasons for having this view. Only after this has been achieved can the risk communicator construct an illuminated path from the belief held by the opponent to the belief that the communicator wants to convey. The path from the former to the latter can be illustrated with logic, evidence, emotion or imagery.

4. *Seesaw: Talking to people who are ambivalent.* This is the game a risk communicator plays with his/her audience when the audience has knowledge or feelings supporting both positions of the issue, even though their beliefs may be neither compatible nor firm. The paradox of the seesaw is that when people are ambivalent, they will tend to resolve their ambivalence by emphasizing the half of the issue that everyone else seems to be neglecting. For example, worst case scenarios are usually very unlikely events. If the risk communicator focuses on the low probability at which such events occur, the audience will focus on how horrific such events will be. Conversely, if the communicator emphasizes how horrific such events are, the audience will probably focus on how unlikely they are. A second example – in an uncertain situation such as the 2009 H1N1 pandemic, there is a lot we, the public health practitioners, know and do not know. If we sound over-confident, our audience is likely to fixate on all that we do not know. On the other hand, if we openly share dilemmas and uncertainties with our audience, we instil in them a sense of confidence that we are competent and are doing the right thing.

A common name for the seesaw is “reverse psychology”. Thus to nudge the audience towards the desirable side X of the issue, the risk communicator should take the opposite side Y, while simultaneously providing evidence to support X. Note that the seesaw is inherently

unstable. When the risk communicator takes the Y seat on the seesaw, the audience is only temporarily inclined towards the X seat. For a long-term resolution, the aim of the risk communicator is to slowly but surely inch his/her way towards the fulcrum where the truth of both X and Y co-exist, and to persuade his/her audience to do the same.

Correctly diagnosing the audience is as essential as correctly diagnosing the risk situation. In a typical risk controversy, the audience is mixed, made up of people who are target players of all four risk communication games. The risk communicator will then need to make a judgement call and a compromise in determining which game is of the highest priority, keeping in mind that the relative size of the four groups is not what matters most – it is their relative importance to the goals.

### Precaution Advocacy

When hazard is high and outrage is low in a risk situation, the task in risk communication is “precaution advocacy”. The objective of precaution advocacy is to alert an indifferent and inattentive audience to a serious risk by producing brief and interesting messages that captivate and reinforce appeals that will predispose the audience towards the goal of implementing protective actions. In instances where the hazard could cause serious harm, the risk communicator will also need to provoke more outrage.

The major barrier to effective precaution advocacy is the massive size and inattention of the audience. Preference of the media for sensational headlines means that risk messages need to be packaged into short sound bites. Below are the fundamentals for precaution advocacy. (For more in-depth explanation, see <http://www.psandman.com/handouts/sand59a.pdf>)

1. Keep the risk message short.
2. Make the risk message interesting.
3. Stay on message.
4. Test the risk messages.
5. Plan and prepare for a long-term endeavour.
6. Appeal to needs.
7. Appeal to emotions, especially fear.
8. See fear arousal as a competition (for a slice of the fearfulness pie).
9. Don't neglect other emotions.

10. Identify and give people task that they can do.
11. Give people a selection of tasks to choose from.
12. Sequence recommended precautions.
13. Think in stages.
14. Focus resources on teachable moments.
15. Be alert for a short-term over-reaction.
16. Be alert for signs of denial.
17. Identify and address persuasion facilitators.
18. Identify persuasion barriers and consider addressing them.
19. Express empathy for apathy.
20. Consider an alternative: pre-crisis communication.

In promoting and educating about good health, one mental block we, public health practitioners, should strive to overcome is that we naturally gravitate towards using logic and evidence for a prevention intervention program in our precaution advocacy messages. While logic and evidence are important in our decision to endorse and allocate resources to specific intervention programs, the stated rationale does not always appeal to the general public. Instead we should consider appealing to the public's values and needs. Some examples discussed during the Workshop include appealing to the need for control among teenagers while promoting condom use for the prevention of STIs and unplanned pregnancies, appealing to the need of parents to protect their children and to set good examples for them in promoting the use of seat belts, and promoting the use of hard hats as a symbol of pride and courage rather than as a symbol of cowardice.

Some workshop participants expressed concern over the use of such strategies as being manipulative. Nonetheless, these approaches do present us with alternate options where other strategies have failed. One good example of precaution advocacy that has been used widely in Canada is the inclusion of (sometimes graphic) images on cigarette packaging.

### Outrage Management

When hazard is low and outrage is high, the task in risk communication is “outrage management”. The objective of outrage management is to reassure an excessively upset audience about the small risks by listening to the public, acknowledging and apologizing for past wrong, and sharing control and credit with the public and critics.

The major barriers to effective outrage management are the audience's outrage that is often directed at the risk communicator and the risk communicator's reciprocal outrage directed at the audience. Thus recognizing that there is a need to address the public's heightened emotions towards a risk issue before conveying the science and evidence about the "real" harm is already one small step forward in effective outrage management. Below are six principal strategies for outrage management. (For more in-depth explanation, see <http://www.psandman.com/handouts/sand42.pdf>)

1. *Stake out the middle (area of shades of grey), not the extreme (area of black or white).* In doing so, the risk communicator must validate the opponent's arguments, keeping in mind that the opponent will be unlikely to validate the risk communicator's valid points. It may be helpful to think about the opponent's valid arguments ahead of time and incorporate those in the risk communicator's counter-statements.
2. *Acknowledge prior misbehaviour.* The dilemma here is whether to keep past wrong committed by the organization a secret or to reveal it. Rule of thumb: If a past wrong is to be revealed, it must also be addressed.
3. *Acknowledge current problems* – before beginning to solve the problem, before we know if we can solve the problem, and while we solve the problem. Acknowledging problems early and frequently projects an image of transparency and competence. Therefore it is important to let critics watch while the problem is being solved, so that they know when we succeed. When critics do not have the capacity to credibly assess the outcome, involve third party experts who can provide an independent assessment.
4. *Discuss achievements with humility.* Do not take credit for implementing change that was brought about from pressure exerted by the public and critics. This will only trigger skepticism and increase public outrage. Giving credit to the public and critics for the improvement made will increase the likelihood that they will believe positive change was actually achieved.
5. *Share control and be accountable.* Sharing control with stakeholders will decrease public outrage. Be accountable by inviting and involving

regulators, critics and activists in solving the problem and finding the answers together.

6. *Pay attention to unvoiced concerns and underlying motives.* In addition to genuine concern about a risk issue, greed, outrage and self-esteem are sometimes the other driving forces behind stakeholders' demands.

*Greed – "I want more for me."*

Greedy stakeholders want specific gains through exhibiting outrage. Although greed is not commonly accepted as a virtue, one of the goals of outrage management is to minimize the other motives so that greed could be bargained effectively.

*Outrage – "I want to see you punished."*

Do not misdiagnose outrage as greed. Outrage overpowers greedy intentions, and negates the risk communicator's capacity to bargain. The risk communicator must control the public's outrage and make concession (and sometimes offer compensation) before reassuring the audience about the low hazard.

*Self-esteem – "I want to feel better about myself."*

Often people exhibit their hurt self-esteem (e.g. embarrassment, shame and guilt) as outrage. Hence the need of these individuals to be vindicated, supported and reassured is more important to them than to have the offending organization punished. The most severe form of damaged self-esteem is oppression. Outrage manifested by oppressed individuals and communities is one of the symptoms of their always being on the losing side of various issues.

As discussed above, in an outrage management scenario, a mix of people with different levels of public involvement will be present.

1. *Fanatics* – They are hyper-engaged in the risk controversy. They have already picked sides on the issue.
2. *Attentives* – The risk controversy is likely to be on their top 20 list of issues to watch. They monitor the media carefully, and weigh the pros and cons of the different sides.
3. *Browsers* – They do not keep up-to-date on the risk controversy, and do not bother providing

input. While the risk controversy is on their “worry list”, it is not perceived as high priority.

4. Inattentives – They do not know about the risk controversy and are apathetic about seeking additional information about it.

In dealing with an outrage management situation, playing “donkey” with the fanatics and “follow-the-leader” with the browsers and inattentives would not be effective as they are all likely to be unmovable. Although browsers and inattentive are willingly reliant on the judgement and reaction of fanatics and attentives in determining their own response, the most important crowd that the risk communicator needs to win over is the attentives. Attentives are watchful of the risk communicator’s interaction with the fanatics, and they evaluate both sides of the argument. They want the critics to win some concessions from the risk communicator, and they want to observe that the risk communicator can respectfully validate valid arguments from the opponents. It is only when the risk communicator can successfully deflate the attention and interest of the attentives that public outrage will diminish.

### Precaution Advocacy vs. Outrage Management

Even though precaution advocacy and outrage management are situated in opposite corners on the outrage-hazard map, the differentiation between the two kinds of risk communication is not so clearly delineated in reality. Much of the differentiation depends on who the risk communicators are and on the sources of data or opinion. Take for example the issue of genetically-modified foods. One can see that Monsanto and Greenpeace, each with its own agendas, assessment and valid arguments, will be on opposite sides of the risk communication spectrum. Therefore, before embarking on a precaution advocacy or outrage management exercise, the risk communicator must clearly define the goal and audience of the risk message. (See <http://www.psandman.com/handouts/sand38a.pdf> for a quick comparative summary of the messaging strategy for precaution advocacy and outrage management.)

One problem that is especially pertinent to public health is that, more often than not, we tend to over-diagnose a risk communication situation as precaution advocacy rather than outrage

management. One vivid example that Dr. Sandman discussed was the reluctance to practise safe sex and the continued rise in HIV infection among vulnerable populations. Instead of precaution advocacy, Dr. Sandman argued that this example should really be diagnosed as outrage management. (Recall that “outrage” is the all-encompassing term used here to describe all emotion-laden factors that affect the way we perceive risk, and not just outrage itself.) “Vulnerable individuals” understand the preventive value of condoms, and they are not apathetic to maintaining and protecting their own health. Hence their inattention and inaction do not stem from apathy; rather they are the symptoms of damaged self-esteem, denial and other emotion-driven factors.

Identifying the correct audience is an indispensable component of effective risk communication. Once identified, the audience should be characterized in terms of their attitudes and values, emotions and needs, current behaviours, knowledge of the risk issue, media use patterns and preferred spokespeople, among other things.

### Crisis Communication

When hazard and outrage are both high, the task in risk communication is “crisis communication”. The objective of crisis communication is to help an appropriately upset audience cope with the serious risks and to bear its fear and misery.

The major barrier to effective crisis communication is the stress of the crisis itself. Below are the fundamentals for crisis communication. (Drs. Sandman and Lanard’s guidelines to crisis communication are extensive, and they will not be repeated here. Refer to the appropriate links for more information.)

*Crisis Communication 1: How bad is it? How sure are you?* (See <http://www.psandman.com/handouts/sand12a.pdf>)

1. Don’t over-reassure.
2. Put reassuring information in subordinate clauses.
3. Err on the alarming side.
4. Acknowledge uncertainty.
5. Share dilemmas.
6. Acknowledge opinion diversity.
7. Be willing to speculate.



*Crisis Communication II: Coping with the emotional side of the crisis* (See <http://www.psandman.com/handouts/sand12b.pdf>)

8. Don't over-diagnose or over-plan for panic.
9. Don't aim for zero fear.
10. Don't forget emotions other than fear.
11. Don't ridicule the public's emotions.
12. Legitimize people's fears.
13. Tolerate early over-reactions.
14. Establish your own humanity.

*Crisis Communication III: Involving the public* (See <http://www.psandman.com/handouts/sand12c.pdf>)

15. Tell people what to expect.
16. Offer people things to do.
17. Let people choose their own actions.
18. Ask more of people.

*Crisis Communication IV: Errors, misimpressions, and half-truths* (See <http://www.psandman.com/handouts/sand12d.pdf>)

19. Acknowledge errors, deficiencies, and misbehaviours.
20. Apologize often for errors, deficiencies, and misbehaviours.
21. Be explicit about "anchoring frames".
22. Be explicit about changes in official opinion, prediction, and policy.
23. Don't lie, and don't tell half-truths.
24. Aim for total candour and transparency.
25. Be careful with risk comparisons.

The key point to remember is that there is no "public" in a crisis; everyone is a stakeholder. Key strategies include avoiding over-reassurance, sharing dilemmas, being human and empathic, providing tasks that people can do, and acknowledging uncertainty.

## NCCID Comments

Drs. Sandman and Lanard's approach to risk communication is but one of many in the field. While the fundamental principles such as honesty and openness are universal in the field of risk communication, there is generally no consensus on the specific strategies for each risk communication paradigm. "Risk = Hazard + Outrage" serves as a good starting point to get oriented in the field of risk communication, and the best way to find out whether this approach is suitable to our needs is to put it to use. Practice will allow us to both identify gaps and weaknesses in these guidelines, and, more importantly, help us to become skilled risk communicators ourselves.

The recent 2009 influenza A H1N1 pandemic has revealed a great need for risk communication training among public health practitioners. In the attempt to meet this need, NCCID is planning to conduct focus groups and a nationwide needs assessment to determine what roles can NCCID and partner organizations play in a long-term risk communication training and resource program. In the lead-up to these planned activities, we invite public health practitioners to contact us at [nccid@icid.com](mailto:nccid@icid.com) to provide us with some initial thoughts on future risk communication training opportunities:

- What are some of the specific public health work areas in which you require further risk communication training?
- In addition to risk communication training workshops, what other resources should be made available to public health practitioners?
- How should risk communication training workshops be delivered (e.g. webinars, in-person training sessions, on-demand videos etc.)?

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