

# European Health Psychology Society



### **EHPS Policy Summary**

#### Risk Communication – how to communicate risk to patients and the public

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Clear communication of health-related risks is an important part of public health communication and medical consultation. It can help people to take preventive actions and to engage with effective treatments. It helps individuals to make informed medical decisions and to take actions to reduce their health risk. This guide outlines key information about risk and makes recommendations about how to communicate health risk information transparently and effectively.

#### What is risk?

Health experts typically consider risk to be the probability of a negative event occurring given a particular behaviour or treatment. These probabilities are determined in large scientific studies which compare how often such negative events occur in groups under various conditions. However, this scientific definition of risk is often at odds with patients' and public perceptions of the same health risk.

#### **Risk perception**

Subjective risk perceptions are not only based on numbers and probabilities, but also on people's feelings and threat appraisals. As such, the objective likelihood of an event occurring is not judged independently from how it is subjectively evaluated. There are common biases in risk perception, which affect people's subjective evaluations of risk. For example, risks that are perceived as less controllable and risks that are serious but which have a low likelihood are commonly considered more heavily in medical decision making than is justified by their objective probability.

#### How to communicate risk: best practice recommendations

Given that public understanding of risk is often not in line with how experts judge risk, transparent communication of the scientific evidence on risk is vital.

To communicate clearly, risk information should;

- 1. Be based on summaries of current, robust, scientific evidence (e.g. on meta-analytical reviews of randomised controlled trials with objective outcomes) and specify the source of this evidence with a year of publication and statement about the credibility of the information.
- 2. Refer to a population that closely matches the target population (e.g. if communicating risk to older adults, the evidence used should come from studies of older adults).
- 3. Present information about both the most severe and the most common negative and positive events tied to a treatment or action so people can weigh up the pros and cons in a balanced way.
- 4. Use absolute numbers to illustrate the chances of events occurring in each relevant scenario (i.e. with and without treatment; in one group versus another (see Figure 1 for an example)).
- 5. Provide a visual illustration using icons to represent the number of events or people who would be affected at the relevant level of risk.

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- 6. Avoid formats that people typically struggle to misunderstand (e.g. odds ratios or relative risk reduction), as this leads to misestimation.
- 7. Make the recipient of the message feel comfortable before any negative or unexpected risk information is delivered face to face.
- 8. Be honest and transparent about what isn't known or can't be accurately estimated. This can help to increase trust.

#### After risks have been communicated

Once risk information has been communicated, it is important to explain to people in concrete terms what they can do to reduce or avoid this risk (e.g. explaining to those at high risk of infection that wearing a mask and washing hands will reduce risk) and to strengthen their belief that they are able to take on this behaviour.

**Figure 1:** Example fact box presenting risk information about the early detection of cancer through mammography.

## Breast Cancer Early Detection by Mammography



Mammography screening may reduce the number of women who die from breast cancer but this has no effect on overall cancer deaths. Among all women taking part in screening, some women will be overdiagnosed with non-progressive cancer and unnecessarily treated.

Numbers for women aged 50 years or older who did or did not participate in screening for about 10 years.

	1000 women without screening	1000 women with screening
Benefits		
How many women died from breast cancer?	5	4
How many women died from all types of cancer?*	21	21
Harms		
How many women without cancer experienced false alarms or biopsies?	-	about 100
How many women with non-progressive cancer had unnecessary partial or complete breast removal?	-	5
Source: [1] Gøtzsche, PC, Jorgensen, KJ (2013). Cochrane database of systematic reviews (1): CD001877.pub5.		
Numbers in the Fact Box are rounded. Where no data for women above 50 years of age are available, numbers refer to women above 40 years of age.		

\*It is not always clear from which cancer a person has died. Moreover, radiation exposure from mammography procedures and cancer treatments can increase the risk of other cancers. It is more reliable to compare how many people died from any cancer.

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