



Communicating risk: perceptions of risk

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How we talk about risk isn't just about including the right numbers. It's also about the language we use and how we describe it.

Framing

Framing means whether you describe something in a positive or negative way. This can make a huge difference to how it's perceived.^{1,2}

For instance, saying "this procedure is effective in 95 in 100 people" is positive framing. Saying "the surgery doesn't work in 5 in 100 people" describes the same results, but with negative framing.

Reading each of these statements independently may give you a skewed view of the results – you are immediately either focused on the positive or negative findings. And different people may be influenced by one more than the other.

You might want to tell people about a particular side-effect of a treatment: "1 in 100 people who have this procedure may develop a

severe complication" – but do you ever think to mention the 99 in 100 people who are absolutely fine?

When you next come to write about statistics and risk, think about how you describe them – are you unintentionally putting a positive or negative spin on them? If so, consider how you may be able to include both positive and negative framing in your content. It may not always be feasible to do so, but when you can, it's the most balanced way of presenting your information.

For the example above, you could say "1 in 100 people who have this procedure develop a severe complication. This means 99 in 100 recover without any severe complications." It may seem obvious, but it leaves the statement on a positive note, which may help to reassure patients.

Risk taker or risk adverse?

People aren't just influenced by how risk is presented; everyone will also have their own personal perception of risk.^{1,3} Take the example above, in which 1 person in 100 may develop a severe complication. Some people may take the view that this is a very small risk – and one that's worth taking. Someone else however, may worry about being that one person who develops the complication and therefore consider the treatment too risky.

Making risks relevant

How useful is telling someone they have a “one in five” risk, if they can't visualise what this means? Adding some context to your statistics can make them more meaningful.

It can help to compare rates to something else that your audience may be more familiar with – for example the chance of winning the lottery, or of being struck by lightning “eg, you're more likely to win the lottery than die from X disease.”

This is something very personal – it's down to your own views and values, and more generally, about how risk adverse you are. What's important when writing content, is that you don't assume what the reader's perception of risk may be. So stick to the numbers, rather than adding descriptions such as ‘this is a very small risk’.

The drawback with these kind of comparisons, is that your readers may not always be familiar with the comparators being used, so it's important to also include the actual figures too.

You may also find it helpful to include more relevant examples, for instance comparing rates of incidence to those for similar conditions, or comparing rates of side-effects for similar treatments.¹

Testing your comparisons with your target audience will help to make sure they're relevant for your readers.

PIF Toolkit: risk checklist

www.pifonline.org.uk/toolkit

PIF Toolkit key steps	Covered here
Be cautious using verbal descriptors of risk. If used, ensure these are accompanied by statistical information.	
Use absolute risk rather than relative risk.	
Use natural numbers rather than percentages.	
Consider using both positive and negative framing for risk.	✓
Communicate uncertainty of data; explain the effect confidence intervals have on data.	
Consider using a mix of numerical and pictorial formats to communicate risk.	
Make risks relevant. Consider using examples as a comparator.	✓

References

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The factsheet was kindly reviewed by David Spiegelhalter, Winton Professor for the Public Understanding of Risk in the Statistical Laboratory, Centre for Mathematical Sciences, University of Cambridge.

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