Risk is a funny thing. Life is filled with it, and we make many of our daily decisions based on our assessment of it. Mathematician Ian Stewart (2003) argues that humans are actually rather poor at estimating probabilities of things like risk, perhaps because it has never been essential to our evolution. But is this really the case? Before you read on, I'd like to offer you the chance to test your own mathematical intuition by ranking the following activities in order of how likely each one is to lead to the death of the person who chooses to do it.

- Bungee jumping
- Giving birth
- Taking a commercial airline flight
- Seeking Western medical care
- Skydiving

One of the reasons I am using the example of "giving birth" (i.e. in relation to the risk to the mother) is that it is rather difficult to agree on how we would define the risk of 'being born'. From what point would we count? Do we start from conception and count the babies who are lost in early pregnancy? Do we count babies born prematurely, or do we start counting from 36 or 37 weeks? If we choose the latter approach, how can we be sure that dates are accurate? This example shows how, while we have long used statistics to measure risk, the people who do the calculations have to make all kinds of human decisions about who to include and exclude and what parameters to use. The graph below - which gives one set of answers to the question above - is no exception. It only offers a rough comparison of the mortality rates from those activities, because some are only done by certain groups (e.g. giving birth), while others (e.g. flying or seeking Western medical care) are done by a much wider proportion of the population.

The safest of those five activities is actually bungee jumping. There have been very few mortalities among people who have done this, and almost none where the recommended equipment has been used. The next safest is flying on a commercial airline (Barnett 2000): when accidents do happen, the mortality rate is usually high and they are often high-profile as a result, but, as you'll hear on any "fear of flying" course, it's the safest form of transport.

Giving birth in the West, as you might imagine, is a medium-risk activity with a mortality risk of around 1 in 10,000 (Kochanek et al 2001). This makes it a bit more dangerous than skydiving, where the odds are around 1 in 100,000 (Whitney 2004), but none of these are as dangerous as seeking Western medical care, which has a mortality rate estimated at around 1 in 200 (Brennan et al 1991) to 1 in 125 (Wilson 1995).

This is only loosely related to the fact that many people who seek Western medical care are seriously ill; the mortality rate quoted here is that *caused* by medical management, including poor treatment decisions and drug errors. So, while mistakes may be more likely to be fatal to someone who is already seriously ill, and are more prevalent in some groups than others, medical care itself is still the riskiest of these five activities. In fact, Brennan et al (1991) showed that medical errors were the third leading cause of deaths in the US, outranked only by heart disease and cancer.

These numbers rarely hit the headlines, and the age of the studies shows how little ongoing attention this area is given, but they do generate some serious food for thought for those working within the Western medical system as well as those who use it. Anyone for skydiving?!

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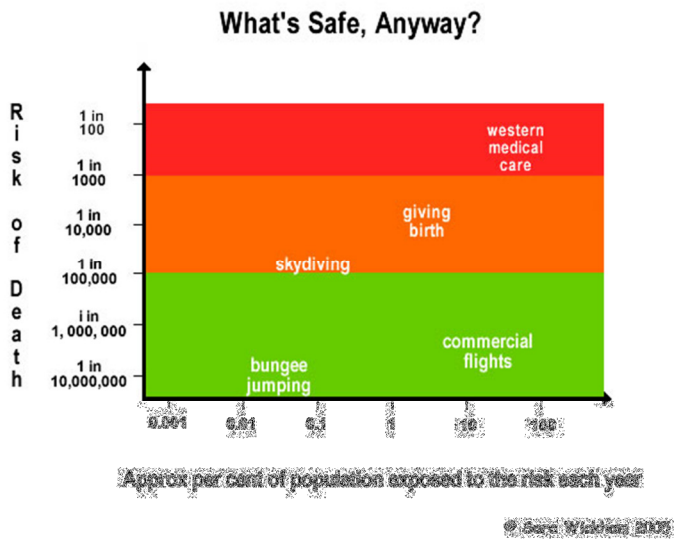

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