

## Why people find it difficult to alter their behaviour

### Introduction

This is the first of a two-part series on changing current behaviour even if it is detrimental to health. Healthcare workers have been surprised by the way human behaviour can destroy people's lives. Through education in schools, mass media and the work of NGOs many people know which behaviour will contribute to their health. Unfortunately many people find it very difficult, if not impossible; to alter their behaviour according to their knowledge of what is good for them. There are many examples to prove this point, two being:

- All of us know that we should not eat lots of sweet things and yet we eat them<sup>1</sup>.
- What about the second portion of ice cream or cake that might be calling too loudly from the refrigerator?

There are, unfortunately, more severe examples that put people at serious risk. There are people who:

- Do not go for regular medical check-ups;
- Smoke cigarettes;
- Do not engage in regular exercise;
- Drink excessive alcohol and,
- Have unprotected sexual intercourse.

The relevant question remains: If people know what healthy and correct behaviour is, why do they find it so extremely difficult to exhibit the appropriate behaviour? Here is a discussion of a few possible answers to the question.

### Multiple answers

As in so many cases, there is rarely a simple answer to a difficult question. There are a number of possible answers to this burning question. In this first article we will only focus on the content of the information and the way health risk information is presented.

### The content of the health risk information

#### *Generalised information versus personalised information*

Victor et al. stated that the public has been inundated with a multitude of health risk messages; it can be compared to "filling a glass with a water hose"<sup>2</sup>. Furthermore, the general health risk information does not take into account the psychological makeup of the individual, the cognitive ability to comprehend the seriousness of the health risk or the social and physical environment that the individual is exposed to. These health risk messages result in highly generalised risk information that is "easy to ignore" by the public<sup>3</sup>.

Modern theoretical models<sup>4</sup> describe health behavioural change in terms of reaching discrete stages in the process of adopting new precautionary behaviour. Each stage requires its own set of information that is useful only to that stage in moving people from one stage of precaution adoption to the next. Thus, Gerrard et al. postulate that effective health risk information should now become tailored risk information. The health risk information should rather be individualised according to the specific stage in which the individual finds himself<sup>5</sup>. It is only under such circumstances that the individual can find meaning in the information as an effective intervention and he/she will find it possible to move to the next stage and ultimately adopt a new behaviour.

It is under these circumstances that multimedia<sup>6</sup> can play a mayor role. Examples of multimedia devices are the Internet, software programs and, more importantly today, mobile phones. Mobile phones are extremely well suited to sending personalised messages to individuals.

#### *Communicating causes and consequences versus numerical statistics*

Investigators<sup>7&8</sup> consistently discovered that when they included numerical probability in their health risk information, people had difficulty in recalling this information accurately. People also tended to confuse information about the frequency of an event with its rate of occurrence. It seems that people cannot reliably understand and interpret numerical probability statistics.

Even if the statistics are extremely precise, people's responses to the information are anything but precise. The following are examples to prove this point:

- It would appear that people fail to consider the relevant sample size when processing information regarding the number of people who have developed, or died from, a health problem. People rated a health problem as riskier when they were informed that it kills 1286 of 10 000 people (12,86%) compared with 24,14 of 100 people (24,14%)<sup>9</sup> and,
- Because people have difficulty ascribing meaning to a probability estimate, they are acutely sensitive to available comparison information. When asked what information would help them understand a health risk, individuals typically requested comparisons between the probability of different risks<sup>10</sup>.

The appeal of health risk communication including numerical probability information is that it offers people precise information regarding the probability that a health problem will occur. However, the effectiveness of this communication approach is hampered by people's inability to accurately interpret and use numerical probabilities.

Researchers offer a more reliable alternative: Rothman et al.<sup>11</sup> propose that people are more interested in what causes a problem and the severity of its consequences. The advantage is that it helps to develop a mental image of the health risk. It seems that this approach is more successful in highlighting a person's perceived vulnerability to a particular health risk<sup>12</sup>.

Sherman et al.<sup>13</sup> discovered that the more easily people could imagine themselves experiencing the symptoms of a disease, the higher their perceptions of personal vulnerability. Presentations of personal testimonials by HIV-positive people have led to the increase of perceived personal risk, but only when people saw themselves as similar to the person providing the testimony<sup>14</sup>. Salovey et al.<sup>15</sup> suggested presenting information that is graphically illustrative to convey the severity of the consequences associated with a health problem.

It would appear that interventions that render either the causes or the consequences of a health problem can have a more meaningful effect on perceptions of personal risk.

#### **Conclusion**

In the past, money and effort have been spent to produce ineffective programmes that missed the target by miles. In order to be effective educators, developers of curricula and even developers of mass media campaigns should take cognisance of how the learning material should be constructed and presented to learners and the general public. After all, it is not only the content of the message that matters, but also the way it is presented.

Next month there will be a follow-up article where we look at cognitive and psychological barriers.

#### **Sources**

1. Family Health International/YouthNet: *Training of Trainers Manual* 2005 Arlington, USA
2. Strecher, V.J., Greenwood, T., Wang, C., Dana, D. (1999) Interactive Multimedia and risk Communication, *Journal of the National Cancer Institute Monographs No. 25, 1999*
3. Ibid
4. Examples of these models are:
  - Theory of Planned Behaviour
  - Transtheoretical Model of Behaviour Change
  - Precaution Adoption Process Model
  - Aids Risk Reduction Model
5. Gerrard, M., Gibbons, F.X., Reis-Bergan, M. The effect of risk communication on risk perceptions: the significance of individual differences. *Journal of the Cancer Institute Monographs No.25, 1999*
6. Multimedia can be defined as the combination of two or more media and it assumes interactivity with the user.
7. Rothman, A.J., Kiviniemi, M.T., Treating people with information: an Analysis and Review of Approaches to Communicating Health Risk Information: *Journal of the National Cancer Institute Monographs No.25, 1999*
8. Fong, G.T., Rempel, L.A., Hall, P.A., Challenges to Improving Health Risk Communication in 21st Century: A Discussion: *Journal of the National Cancer Institute Monographs No.25, 1999*
9. Yamagishi, K., When a 12.86% mortality is more dangerous than 24.14%: Implications for risk communication: *Applied Cognitive Psychol 1997; 11: 459-506*
10. Roth, E. Morgan, M.G., Fischhoff, B. Lave, L. Bostrom, A., What do we know about making risk comparisons? *Risk Analysis 1990; 10: 375-387*
11. Rothman, A.J., Kiviniemi, M.T., Treating people with information: an Analysis and Review of Approaches to Communicating Health Risk Information: *Journal of the National Cancer Institute Monographs No.25, 1999*
12. Ibid
13. Sherman, S.J., Cialdini, R.B., Schwartzman, D.F., Reynolds, K.D., Imagining can heighten or lower the perceived likelihood of contracting a disease: The mediating effect of ease of imagery: *Personality Social Psychol Bull 1985; 11: 118-27*
14. Ibid
15. Salovey, P., Rothman, A.J., Rodin, J. Health Behaviour. In: Gilbert, D.T., Fiske, S.T., Lindzey, G., The Handbook of social psychology, 4th ed. Vol.2 Boston (MA): McGraw-Hill; 1998; p.633-683