

## **Editorial**

### **Making Sense of Risk**

Imagine where we might be today if we did not have antibiotics, the contraceptive pill, the discovery of DNA, or the smallpox vaccine.

A recent survey by the Royal Institution asked 40 members of the scientific community to list some significant discoveries that would not have occurred if they had been subject to the constraints of the “precautionary principle.” (British Medical Journal, 10 May 2003) The innovations listed above were among the discoveries that might have never happened. Nonetheless, today the so-called precautionary principle (the assumption that experimentation should take place only when there’s a guarantee that the outcome will not be harmful) hampers the progress of many current policy decisions in areas such as stem cell science, genetically modified organisms (GMOs), and a host of other areas, threatening the future of scientific innovation.

The release of a study from researchers at Stockholm University who found that a substance called acrylamide, which is formed during cooking a wide range of food stuffs, can cause cancer attracted international interest. Early reports from experts found that acrylamide was formed during the preparation of food, and at high levels predicted explanation of some of the cases of cancer caused by food. The evidence did not support the claim, yet the outcome of the subsequent media frenzy continued to produce significant doubt and mistrust.

Today confidence in government and other “credible” pronouncements about risk—whether of terrorist threats, food safety, Sudden Acute Respiratory Syndrome (SARS), or Monkey pox—continue to challenge the public to do the right thing. Competing messages by the media and others continue to make the public uneasy about the progress and huge opportunities presented by areas of science including biotechnology and information technology.

As all of us are health communicators, we ought to be aware of the role we play in the proactive and reactive approaches to risk. Such areas of Knowledge Management, Knowledge Sharing, and Knowledge Utilization are amongst our arsenal to approach a wary public. If we elicit, codify, organize, and strategically communicate knowledge so that policymakers and the public can make use of these findings and react appropriately, we would be contributing to progress with ideal policy and practice decisions.

Of course, the need to tailor communication for different audiences is resource intensive, requiring discrimination between evidence and values, requiring medical knowledge and understanding, effective use of language(s), and knowledge of the needs and interests of end users.

In today’s world highly skilled experts often use acronyms and complex terms that make their message more complicated. This is another risk that could “turn off” the audience, as they do not want inadequate or inappropriate information. In order to

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stimulate appropriate use of information, clear, reliable, and relevant information is the key to credibility.

The overall ability to reach people with credible sources is the fact that most people do not trust elected officials, the leaders who join via media to communicate to the public. Hence, “trust me” has given way to “show me.” Sometimes it evolves to “prove it.” As the public is more discriminatory about information, involvement in the process is critical to success. Involvement could address the challenges of basing a decision on an early, “false negative” that could be just as damaging to society as failing to act because of an early, “false positive.”

Since the level of risk acceptable to society varies from country to country, and individual to individual, many factors contribute toward the feeling of well-being and the decision(s) in these areas. Although most people realize that living in a risk-free society is an illusion, they demand to live in a society where risk is minimized. More importantly, they want to retain control over when and where to assume risk. Voluntary and involuntary risks will always have differing emotional responses.

Finally, as risk and policy are clearly intertwined, an indictment of the precautionary principle is not the goal. Rather we should learn from past mistakes and issues and develop a precautionary approach to future challenges. However, such an approach will also be subjective and susceptible to abuse by policy-makers. Involvement of stakeholders in society—the public—with fairness and equity at every step of the way would be advancement of risk management and health communication practice. With long term scientific and procedural safeguards built into risk management decisions that are based in part on precaution, adoption of precautionary measures that addresses the benefits, risks, and costs of alternative precautionary measures would be valuable.

It is the sincere hope that we can advance the art and science of health communication with the goal of making the world a better place for ourselves, our children, and our children’s children.