As public health professionals, we recognise a gap between scientists and decision makers. Firstly, communication is a problem. Scientists and decision makers do not use the same language. Because decision makers are usually not current in complex analytical approaches, study results must be put forth in a compelling manner—for example, through visually interesting presentations that accurately and effectively summarise complex analyses.

Secondly, time is a problem. Decision makers seldom have time to read the scientific literature. Scientists must be trained to write for policy makers. Another option is creating a new specialty of science that translates science into clear public health language. From time to time, scientists who are effective translators must stop simply generating scientific evidence and instead recommend specific public health actions for decision makers.

Thirdly, taking initiative is an issue. Results of scientific studies must be actively communicated and marketed—not merely disseminated through publications—to the decision makers. Again, this could be done by scientists specially trained in these skills. Because of the large volume of essential scientific information, results must be carefully tailored for presentation to each intended decision maker group.

Fourthly, precise recommendations are lacking. Scientific publications should not simply end articles with the standard phrase, “our results indicate that further research is needed”, but instead should offer practical recommendations for decision makers. One suggestion is to end each article with a brief list of action items, similar to the standard abstract format at the beginning of an article, with recommendations for decision makers. Some journals in health promotion already use this format.

Finally, not all scientists publish their findings. Government agencies should encourage and facilitate government scientists to publish their findings in peer reviewed journals. Many government based scientists carry out excellent research but, because of a different focus and mandate, their work often ends up in reports of limited circulation. Journal publication is a more effective way to disseminate findings to other scientists and decision makers worldwide.

Bridging the gap between science and policy is not easy, but is feasible. Promoting communication among scientists and decision makers by creating a common language and a new breed of translational scientists will help make public health practice more effective.

B C K Choi
Population and Public Health Branch, Health Canada, AL no 6701A, 120 Colonnade Road, Ottawa, Ontario K1A 1B4, Canada; Department of Public Health Sciences, University of Toronto; and Department of Epidemiology and Community Medicine, University of Ottawa, Canada

D V McQueen
National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, USA

I Rootman
Department of Public Health Sciences, University of Toronto; and Faculty of Human and Social Development, University of Victoria, Canada

Correspondence to: Dr B C K Choi;
Bernard.Choi@hc-sc.gc.ca

APHORISM OF THE MONTH

Type I and type II errors exist in public health practice too

Epidemiologists are familiar with the concept of type I and type II errors in epidemiological research, but type I and type II errors exist in a different sense in public health practice. With the move towards multidisciplinary and interdisciplinary public health it is not unknown for some to rejoice at the absence of physicians from the public health field. This is, however, equally erroneous to the medical domination of public health. Environmental, social and biomedical perspectives make up the three legs of the public health stool, set as it is within a public health context. We can conclude that type I errors occur when there is a narrow, biomedical perspective and domination of something which needs to be holistic. Type II errors occur when biomedicine has no seat at the table—a bit reminiscent of Pol Pot’s attitude to professionals in Cambodia.