

Communicating science clearly

A few tips on explaining medical research to the public

Medical professionals have important roles as communicators. In addition to speaking with patients and colleagues, many health providers talk to Rotary clubs, religious assemblies, and other groups about medical issues in their community. People come to them for advice and information about medicine, and to learn about local clinical trials.

'Physicians need to communicate clearly, whether they are talking to a single patient or an auditorium full of people,' says Elizabeth Robinson, the deputy director of information programs at Family Health International. Robinson is also the lead author of a new guidebook, *Communications Handbook for Clinical Trials*, that describes the time-tested practices of good communications in medical research.

The handbook explains that miscommunication can happen for many reasons. For example, the use of technical jargon is a common stumbling block. Some words – such as *significance* and *trial* – have different meanings in a scientific context than they do in everyday language. Fundamental concepts of medical research, such as *randomisation*, are not commonly understood. And some medical and scientific terms cannot be easily translated into local languages.

Healthcare providers can reduce the chance of a misunderstanding by paying attention to how communities talk about medical issues, and by following some simple guidelines to communicate about medical science more clearly.

Use everyday language

Although medical professionals sometimes fear that simple explanations dilute important scientific concepts, it is essential to reach non-scientific audiences using plain language. This holds true for what you say and what you write. Consider the following suggestions:

- Pay attention to the patterns of speech used by people in the community. How do they discuss health issues? What words or analogies do they use? In Kenya, for example, journalists refer to male circumcision as 'the cut.' Scientists who are conducting research on male circumcision take this into account when they explain their work to the community.
- You can keep it simple without sacrificing the meaning of a concept. Some people follow the two-syllable rule – questioning the use of all words that have more than two syllables. Try to replace complicated

words with shorter terms or with language that is more familiar.

- Consider the use of images to convey an idea. An illustration can do much to explain a concept. Graphics can help you transcend language differences and cultural barriers and can make complicated ideas easier to grasp.
- Use stories and analogies to explain scientific concepts. Years after people forget facts and statistics, they will remember a good story, especially if it sparked a moment of understanding. Make sure that the analogies you provide are culturally and politically appropriate.

Demystify statistics

One of the most challenging parts of explaining research is talking about numbers, especially statistics, which are often misreported or misinterpreted by journalists and the general public. Follow these rules:

- Simplify numbers. Instead of saying '51.2 percent,' say 'about half.'
- Be careful with fractions and proportions: For example, if you say, 'A vaccine reduced risk by one-third,' many people jump to the conclusion, 'That must mean that two-thirds of people in the study got infected!'
- Use numbers and numerical comparisons that people can relate to their own lives. For example: 'Three out of four women of childbearing age in Province Z told us that they currently do not want to get pregnant but they have no way to control their fertility.'

Replace jargon with everyday words

vaginal intercourse	⇒ sex
coitally dependent	⇒ when you have sex
behavioural disinhibition	⇒ take more risks
transmission	⇒ infect
acquisition	⇒ become infected with
concentration level	⇒ strength
systemic toxicity	⇒ side effects
seroconvert	⇒ become HIV positive
accrual	⇒ participants joining the study
retention	⇒ participants staying in the study
terminate	⇒ end

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A health worker speaks to women about family planning in a clinic waiting room in Zambia. Healthcare providers can reduce the chance of a misunderstanding by paying attention to how communities talk about medical issues.

Be respectful, neutral, and consistent

- Use respectful language. Researchers often use terms that carry scientific value but may seem dehumanizing to non-scientists. For example, scientists sometimes refer to a person who participates in a clinical trial as a *subject*. Instead, use words such as *participant* or *volunteer*. These terms honour their willingness and effort to be involved in the trial.
- Use neutral language. Terms such as *target group* and *control arm* can be confusing or trigger negative responses. No one wishes to be a *target* or to be *controlled*.
- Use consistent language. Many study products and interventions have multiple names, which can cause confusion. For example, the drug Viread is also known as tenofovir. When introducing a new product or concept, it is important to refer to it consistently with the same name to avoid misunderstandings.
- Finally, limit the use of acronyms. Most people will not be familiar with the acronyms you use in your work. If you must use an acronym, be sure to spell out the complete term on first use.

'These are just some of the many ways one can limit misunderstandings and misinterpretations,' says Robinson. 'The goal is to reach as many people as possible with accurate information. An understanding of the facts can have an enormous positive impact on the public's health.'

Communications Handbook for Clinical Trials

This handbook provides practical guidance to clinical trial staff and research partners on how to anticipate and respond to the special communications challenges posed by clinical research in resource-limited settings. It also shares lessons from case studies of actual experiences of running trials in Africa and other parts of the world.

Diagnostic tools, sample templates, and model examples of communications plans and materials are included for research sites to adapt and use as needed. Tips and techniques on how to communicate effectively in interviews, in meetings, and with the media are also highlighted.

The handbook is published by the Microbicides Media and Communication Initiative (MMCI), a multi-partner collaboration housed at the Global Campaign for Microbicides at PATH in Washington, DC, and by Family Health International in Research Triangle Park, NC. The handbook will be launched at the 2010 International Microbicides Conference, to be held May 22–25 in the United States.

To learn more about the handbook or request a copy, email: handbook@mmci-communications.org.

