



Essays on health: reporting medical news is too important to mess up

February 17, 2017 6.13am AEDT

Stories in the media are often the first or even the only way that people hear about science and medical news. So we need to get the reporting right. from www.shutterstock.com

News stories regarding the latest in the world of medicine are often popular. After all, most people are interested in their own health and that of their family and friends.

But sometimes reports can be confusing. For example, one minute coffee seems good for you, and the next it's bad for your health. And remember when 150 health experts from around the world called for the 2016 Rio Olympic Games to be cancelled or postponed because of the Zika virus? This call was swiftly opposed by both the World Health Organisation (WHO) and the Centers for Disease Control and Prevention (CDC).

Sometimes these contradictions reflect differences of opinion in the scientific community, and different approaches to research. These are a normal part of the scientific process.

But in other instances, health news misinforms because of the way some journalists interpret and report research findings.

Author



Patrizia Furlan

Program Director, Journalism and Professional Writing, University of South Australia

Lost in translation

The reporter's job is to speak to sources, look critically at both sides of a debate and write a story that is balanced, factual and accurate.

In medical health news, reporters also have to make sense of complex scientific data and present it in a way that everyone can understand.

However, in the hands of inexperienced reporters, the true meaning of medical research may get lost in translation. Rather than inform or educate accurately, stories may exaggerate and mislead. These shortcomings can be a problem as the public usually first hears about the latest scientific findings regarding advances in health and medicine from the news media.

Stories can end up generating false hopes or unfounded fears. These can range widely, from stories about clinical hands-on practice to research, or from disease prevention to new drugs and techniques, or health risks to health policy.

Given the potential for medical reporting to have powerful effects on the public, it's important reporters understand science – its language, processes and topics – before they translate the information for everyone else. Having enough background knowledge and experience will prevent being misled by unfamiliar claims and assertions.

The power of a good story

Reporters have to make their articles and news items appealing and interesting to a lay audience. That means a story based mainly on dry lab results often needs some compelling storytelling to capture the public's attention.

A common journalistic technique is to insert a personal account from patients or others to tell the story and "humanise" it for readers, listeners or viewers. Individual anecdotes are one of the tools journalists use to promote audience understanding of complex health issues.



Giving a human face to diseases like chicken pox can help journalists tell a story more effectively. sheepies/flickr, CC BY

However, despite being a useful device in complicated medical news, putting a “face” on scientific facts and figures without further context may only serve to skew the story’s content and quality. When this happens the public can be swayed to change health behaviours on the basis of a lay person’s account rather than by the weight of scientific evidence.

Avoiding single source stories and including an independent “expert” can counter some common failings in health news. Experienced medical reporters also know asking the “right” questions of sources will avoid some rookie misunderstandings.

Common problems in medical reporting

A public online monitoring site used ten criteria to assess the quality of Australian health stories in print, online and TV media from 2004-2013. These included

- whether the treatment was “genuinely new” in Australia
- that alternative options were mentioned
- that there was objective evidence to support any treatments mentioned
- how benefits and harms were framed (in relative or absolute terms)
- harms and costs of treatments were discussed
- sources and their conflicts of interests disclosed

- whether or not there was “heavy” reliance on media release information provided by PR (public relations) practitioners, who often represent clients with vested interests.

This analysis revealed reporters portrayed new devices, drugs and medical interventions positively, while potential harms were downplayed and costs often ignored.

Potential sources’ conflicts of interest are often ignored by reporters. For example, the 2009 swine ‘flu pandemic in Australia resulted in mass vaccination roll out in this country. But some reporters covering this public health crisis revealed they hadn’t considered asking about conflicts of interest of their expert sources - such as any potential links with the vaccine manufacturer - as part of their interviewing process. This is despite the fact some public health experts were concerned about others who had conflicts of interest yet were providing comments to the media.

It seems reliance and trust in officials and experts may be greater in cases of emerging risks.

Big stories create powerful waves



Large-scale publicity about celebrity illnesses have often led to an increased knowledge of certain diseases. For example, actor Angelina Jolie’s preventative double mastectomy significantly raised public awareness of “breast cancer genes”.

However, news reports can also have the opposite effect, introducing doubt and even mistrust of existing medical practice. When the ABC’s science program Catalyst questioned the link between high cholesterol and heart disease in a 2013 two-part report, there was a significant drop in community use of cholesterol lowering medications known as statins. Statins are the most commonly prescribed medications in Australia for those aged over 50. Critics described the ABC program as “unscientific” and “irresponsibly misleading”.

It’s common knowledge Angelina Jolie had a double mastectomy to reduce her risk of breast cancer. from www.shutterstock.com

Adverse reports in the media about the effects of Hormone Replacement Therapy (HRT) in menopausal women also caused a dramatic drop in use.

There’s some evidence even media coverage of as little as one to two days’ duration can affect the public’s health-related behaviours. For example, even brief television news coverage of iodine deficiency disorder - which can cause brain damage in children - resulted in a significant increase in the sale of iodised salt in Australia. So it matters how health news is written and presented.

Peer review doesn't mean it's perfect

Reporters are usually well trained to be inherently sceptical of claims being made by government or industry. Yet when it comes to the peer review process in published research, especially in prestigious medical journals, there's an inclination by some to swallow the information "hook, line and sinker".

But there's a fine line between doing a positive story and becoming an inadvertent cheerleader. When dealing with such respected sources, which are often regarded as infallible, reporters' attitudes have been described as "uncritical reverence". Even top journals get things wrong.

Remember the controversial study which linked the MMR (Measles, Mumps, Rubella) vaccine to autism published by highly respected journal The Lancet in 1998? It took twelve years to retract the article. Yet public health repercussions are ongoing, with some still refusing to vaccinate their children despite many studies discrediting the original research. It seems "it's easier to scare, than unscare people".



There is no evidence linking Measles Mumps Rubella vaccination with autism. abbybatchelder/flickr, CC BY

Science does benefit from media coverage

Like government and business, medical journals send out media releases to alert journalists about the latest research, breakthrough or discovery. Often there's a tendency in the media release to exaggerate the importance of the research to attract the reporters' attention, overstating the study's significance.

Scientists also stand to **directly benefit** from positive news stories. Media coverage can increase scientists' citation rates (a measure of how widely read their research is), raising their public profiles and improving funding opportunities for their research. If reporters suspend their usual scepticism and watchdog vigilance, this can lead to stories which may simply promote research that is either premature with no immediate benefit for public health, or may never eventuate beyond the animal testing stage.

This concern is nothing new. Almost 16 years ago, the Australian Press Council (a self regulatory body of the print media) warned about "inadequately researched" health news stories and their effect on the public.

In the US, a statement of "principles" was set up to guide medical health reporters and lift standards and quality. These codes emphasise the need for journalists to understand the process of medical research in order to accurately report it.

For example, it's important to understand the differences between Phases I, II, and III of drug trials.

Phase I clinical trial

Phase I trials test a new biomedical intervention for the first time in a small group of people (around 20-80) to evaluate safety.

Phase II clinical trial

Phase II trials study an intervention in a larger group of people (several hundred) to determine whether it works as intended, and to further evaluate safety.

Phase III clinical trial

Phase III studies examine the efficacy of an intervention in large groups of trial participants (from several hundred to several thousand) by comparing the intervention to other treatments (or to standard care), and to collect additional safety information.



Effective medical reporting does not require becoming a cheerleader for science. 85329395@N04/flickr, CC BY-SA

Another area of misunderstanding regards “absolute” and “relative” risks. A 50% increase in relative risk may not mean much if the absolute numbers are small. For example, let’s say some women have a four in 100 chance of getting a particular disease by the time they’re 65. Recent medical research claims a new drug will reduce the relative risk of getting this condition by 50%. Sounds like a big deal, doesn’t it?

But 50% is the reduction of relative risk and refers only to the effect on the number four. Half of four is two. So the absolute risk, which is the actual risk of contracting this disease, is reduced from four in 100, to two in 100, which is a fairly minor reduction for each individual. Not presenting this accurately can lead to hyperbole in the media.

We need specialist medical reporters

Medical health news is important, as this is how most of us first hear about the latest research, interventions, devices, drugs, surgical techniques and risks. It can influence us to change attitudes and behaviours. It can catapult scientists into the public eye with many benefits for them.

But as with other specialised reporting, medical writing can take a long time to master. Although you don’t have to be a scientist to report well in this area, it’s important to understand the language used by scientists. This allows a reporter to challenge claims being made by them. How big is the study? Who funded it? How much does it cost? What are the side effects? Inexperienced journalists may not spot all the subtleties of the scientific process, but asking the “right” questions can only help, not hinder, public understanding.

📌 Science communication Journalism public relations Bias Science journalism Health news
Science reporting Long read scientists