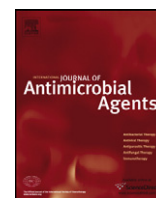




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Emerging zoonoses: responsible communication with the media—lessons learned and future perspectives

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ABSTRACT

Emerging zoonotic disease outbreaks are inevitable and often unpredictable events. The environment surrounding an outbreak is unique in public health, and outbreaks are frequently marked by uncertainty, confusion and a sense of urgency. Good communication at this time, generally through the media, is essential, but examples unfortunately abound of communication failures that have delayed outbreak control, undermined public trust and compliance, and unnecessarily prolonged economic, social and political turmoil. With this paper we hope to disseminate the idea that communication expertise has become as essential to outbreak control as epidemiological training and laboratory analysis. The paper presents the best practices for communicating with the public and discusses future aspects of communicating through the mass media during an outbreak.

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1. Introduction

In recent years emergent disease episodes have increased; nearly all have involved zoonotic or species-jumping infectious agents. Globalisation and rapidly expanding and increasingly concentrated populations of humans and livestock are driving the emergence of virulent zoonotic pathogens that may be responsible for fatal disease in humans and animals. Because there is no way to predict when or where the next important zoonotic pathogen will emerge, or what its ultimate importance might be, investigation at the first sign of emergence of a new zoonotic disease is particularly important [1]. Such investigation may be described in terms of a discovery-to-control continuum: from recognition of a new disease in a new setting to the various efforts to controlling it, one of these being communication with the public via the media [2].

Today, many activities involving emerging zoonotic disease control are at risk because of the failure of responsible communication with the media. Prevention and control of emerging zoonotic diseases will require unique strategies based increasingly on intersectoral cooperation between veterinary and public health professionals and the media. Such strategies require the building of a cadre of specialised, committed, veterinary and public health professionals who are adept at dealing with the media [3].

The health organisations define veterinary public health communication as the crafting and delivery of messages and strategies, based on consumer research, to promote the health of individuals

and communities [4]. Although it can be an effective tool to help shape individuals' perceptions regarding a veterinary public health issue, and can influence their behaviour in many areas of their lives, veterinary public health communication should not be considered the automatic solution to complex public health problems. It should be used in combination with other approaches.

Emerging zoonoses communication is a process that is informed by other disciplines. The behavioural sciences are particularly useful for understanding human behaviour. For example, anthropology and ethnology provide an understanding of the social and cultural context within which certain behaviours occur. Other disciplines, such as communications and marketing, provide insight into the best ways to develop and deliver veterinary public health messages that can influence public health behaviours [5].

Most public health campaigns strive for lasting behaviour change and a sustained public health impact. However, lasting behaviour change is a result of decisions made at the individual level. To facilitate voluntary behaviour change a campaign must appeal to the values and cost–benefit evaluation of each audience group targeted, emphasising near-term salient benefits rather than long-term, abstract, collective benefits. Likewise, veterinary public health messages must be customised in such a way that they are interesting, relevant and captivating to their audience. Messages should be clear, easy to understand and easy to act on. Unless it is easy for people to remember how, when and what to do it is unlikely that a veterinary public health communication campaign will be successful. Social marketing techniques applied to emerging zoonosis communication campaigns have been shown to be effective in crafting health messages that 'speak' to target audiences [6].

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Successful communication campaigns are based on systematic planning efforts and on objectives that are attainable, measurable, clear and time-bound. Successful campaigns develop and deliver health messages that are tailored to specific target audiences. Disseminating generic veterinary public health messages widely and increasing knowledge about certain emerging zoonoses issues and healthy behaviours have been shown to be less effective than more targeted efforts. Audience-centred health communication efforts with a consumer perspective are much more effective in motivating target audiences to change their behaviour. This requires designing and delivering messages that are adapted to the needs, perceptions, preferences and situations of the intended audiences rather than the needs and goals of the message designers or institutions. Communicators in veterinary public health practice therefore need to know as much as possible about their target audience(s) in order to stimulate voluntary behaviour change [7].

Across the world, journalists and traditional news organisations have come to realise that new media, including social networking sites, cellphone messaging and other relatively new technologies are having a profound impact on their work. Convergence between telecommunications, cable, satellite, cellphones and traditional broadcasting means that the media industry is no longer confined to television, radio and print publications. As more people consume information through cellphones and other mobile devices, media companies and other information providers are forced to seriously consider the implications of regulatory convergence, which can lead to opportunities as well as conflict around overlapping boundaries [8].

The most successful emerging zoonosis communication campaigns involve a 'systems' approach that combines the use of multiple mass media (TV, radio, print, etc.), community partnerships, training efforts and activities by grass roots organisations that have credibility with the target audience(s). These efforts, blended in an effective and coordinated manner, can attract more attention, reach more people in the community and create a perception that the campaign is exceptionally vigorous [9].

Communications about emerging zoonoses may take many formats, such as mass media; informational materials such as brochures and fact sheets; visual materials; audiovisual materials such as videotapes; action-oriented activities such as role-playing, storytelling, games, drama, songs, music, contests, fairs, etc.; and Internet and electronic media such as CD-ROMs and Internet outreach [10].

2. Lessons learned

It can at times seem that each new study contradicts the last. Something is good; yesterday it was bad. Something is the treatment of tomorrow based on early studies; but sorry, it was shown not to work in larger studies or had unexpected side effects. Certainly there is much argument about the 'hyped' of H5N1 or any emerging zoonotic disease that has the potential to cause much loss of human life and gives considerable concern to scientists, but has not yet caused a large outbreak of human disease. Unfortunately, even when there is much information about the epidemiology of a microbe, predictions can never be 100% accurate and the accuracy will obviously decrease for organisms where information is sparse.

This is not a problem only with H5N1; it is universal for emerging zoonotic diseases in general. Because they are new diseases, or old diseases in a state of flux because of the acquisition of novel virulence factors or antimicrobial resistance genes, knowledge about their epidemiology and ecology is minimal. Accurate predictions are difficult or impossible to make and rely on historical events that parallel the disease as closely as possible [11]. A drawback of predictions in the mainstream media is that they have led to

some mistrust on the part of the public. It can be difficult to balance the needs of journalists and the media with the interests of public health.

The scientific literature presents information in a much less certain way than the lay press. Scientists use lots of qualification, especially for preliminary findings, and they point out the weaknesses of the study design or methods. This does not often happen in articles that appear in newspapers or magazines, for understandable reasons. Nevertheless, journalists who write about science can be the friends as well as the foes of scientists. A good journalist can be very helpful in communicating science to the public in a clear, unambiguous way, but it only takes one poor one to cause a lot of confusion and misunderstanding.

The challenge regarding emerging zoonotic diseases has been called 'two-footed driving'; in other words, 'be concerned, but not too concerned'. Raising awareness and educating without scaring is not an easy task. Media coverage of emerging zoonoses such as avian influenza can create the impression that the conditions are more of a threat than they really are, according to a recent study from Canada [11]. However, stories that include factual information on disease symptoms, mortality and infection rates leave readers with a more accurate view of the risks.

The media usually focus on rare and dramatic events. When a certain disease receives repeated coverage in the press people tend to focus on it and perceive it as a real threat. This raises concerns regarding how people view their own health, how they truly understand disease and how they treat themselves.

The researchers of the Canadian study compared reader impressions of ten zoonotic diseases. Five have frequently appeared in the print media: anthrax, severe acute respiratory syndrome (SARS), West Nile virus, Lyme disease and avian influenza. The other five have rarely been mentioned in news stories: tularaemia, human babesiosis, yellow fever, Lassa fever and hantavirus. In two different experiments, undergraduate psychology students and then medical students were asked to rate the seriousness of the diseases, judge the likelihood that each condition was actually a disease, i.e. how disease-like it was, and estimate how many of their peers would contract the disease in the ensuing year.

The results suggested that disorders more likely to be covered by the media are not considered to be objectively worse. The group concluded, on the basis of the three experiments, that repetitive media coverage can bias the public's perception of diseases. The media function as a critical interface between the scientific community, government and the public, with a responsibility to strike a careful balance between raising awareness of issues of public concern and irrationally alarming the public at large.

Placing a priority on novel diseases can be useful because rare and dramatic occurrences are sometimes sentinel events. Early media emphasis on a new infectious disease, before many people die, can help society take early appropriate precautions.

3. Effective communication during zoonotic disease outbreaks

Until the outbreak of an emerging zoonotic disease the elaborate infrastructures and mechanisms that protect public health on a daily basis often go unnoticed and attract little media interest. In the midst of a public health emergency the situation becomes very different as the demand for information rapidly escalates. Only recently has the true extent to which media communication directly influences the course of events been recognised. Good communication can rally support, calm a nervous public, provide much-needed information, encourage cooperative behaviours and help save lives. Poor communication can fan emotions, disrupt economies and undermine confidence.

Table 1
Seven steps to effective media communication during public health emergencies [2].

| | |
|---|---|
| STEP 1: Assess media needs, media constraints and internal media relations capabilities | 1.1: Assess the needs of the media 1.2: Assess the constraints of the media 1.3: Assess internal media relations capabilities |
| STEP 2: Develop goals, plans and strategies | 2.1: Develop media communication goals and objectives 2.2: Develop a written media communication plan 2.3: Develop a partner and stakeholder strategy |
| STEP 3: Train communicators | 3.1: Train the media communication team 3.2: Train a public information officer 3.3: Train a designated lead spokesperson |
| STEP 4: Prepare messages | 4.1: Prepare lists of stakeholders and their concerns 4.2: Prepare clear and concise messages 4.3: Prepare targeted messages |
| STEP 5: Identify media outlets and media activities | 5.1: Identify available media outlets 5.2: Identify the most effective media outlets 5.3: Identify media activities for the first 24–72 h |
| STEP 6: Deliver messages | 6.1: Deliver clear and timely messages 6.2: Deliver messages to maintain visibility 6.3: Deliver targeted messages |
| STEP 7: Evaluate messages and performance | 7.1: Evaluate message delivery and media coverage 7.2: Evaluate and improve performance based on feedback 7.3: Evaluate public response to messages |

Table 1 is taken from a WHO handbook, *Effective media communication during public health emergencies*, and details seven steps to effective media communication during a public health emergency [2].

Recent outbreaks of SARS and avian and novel H1N1 influenza, releases of anthrax, and natural disasters underline the importance of communication during public health emergencies. Communication challenges are particularly pronounced when fear of a naturally occurring or deliberately released pathogen spreads faster and further than the resulting disease itself. In such situations, policymakers, the news media and the public all expect timely and accurate information.

It is vital that people feel that officials are communicating openly and honestly. The most important asset in any large-scale public health emergency is the public because they must ultimately take care of themselves. Through effective media communication, public health officials can engage the public and help them to make informed and better decisions.

Good media communication is a crucial element in effective emergency management and should assume a central role from the start. It establishes public confidence in the ability of an organisation or government to deal with an emergency and bring about a satisfactory conclusion. It is also integral to the wider process of information exchange aimed at eliciting trust and promoting understanding of the relevant issues or actions. Effective communication with the media is therefore a key responsibility of veterinary and public health professionals and information officers, especially during emergencies [12].

4. Guidelines for veterinary and public health professionals

It is clearly important that veterinary and public health professionals should communicate their results to the wider public as this will illustrate the potential value to society of their work, and may also enhance the reputation of their professions and host institutions. But the communication of research findings imposes on investigators the obligation that findings should be presented accurately and in ways that minimise the potential for distorted or unwarranted conclusions being drawn. This obligation is particularly significant in the emerging zoonotic diseases, where members of the public may view the research as having direct relevance to their own conditions, behaviour or lifestyles.

To ensure accuracy and minimise the potential for misleading conclusions, the following guidelines are proposed.

4.1. Dealing with the media

Most scientists have little experience of being interviewed by print and broadcast journalists. Although they may be at ease when discussing their work with fellow professionals at conferences and seminars, communicating their work accurately to the wider public requires a different perspective, if only because journalists necessarily use different criteria for judging the interest and importance of new developments. Important information on emerging zoonotic diseases should be communicated in a way that can be clearly understood by the wider public. Equally, host institutions should provide their researchers with specific advice on responses to likely questions from the media in order to reduce the risk of misinterpretation.

4.2. Credibility

In communicating public health messages to any group of individuals, credibility is paramount. Without it, even the most clear, concise, well-delivered message will be completely dismissed by the audience. Once lost, credibility is difficult to regain. Therefore, it is critical for a communicator to gain and maintain the trust of his audience.

4.3. Accuracy

It is a fundamental requirement that all emerging zoonotic disease researchers report their work accurately. Correct details of methods, procedures, analyses and statistical methods are required in all cases to allow the merits or otherwise of a particular investigation to be assessed. The peer-review process is intended to provide this safeguard for the formal scientific literature.

4.4. Communication of risk and benefits

Communicating the results of studies that report changes in the probability of human morbidity or mortality, or similar changes in risks to the environment, imposes additional and quite specific responsibilities on researchers. Researchers in emerging zoonotic

Table 2

Principles and techniques of effective media communication for veterinary and public health professionals.

| |
|---|
| Accepting the media as a legitimate partner Planning thoroughly and carefully for all media interactions Meeting the functional needs of the media Being candid and open with reporters Listening to the target audience Coordinating, collaborating and acting in partnership with other credible sources Speaking clearly and with compassion |
|---|

diseases and public health professionals clearly have a duty both to warn the public of potential dangers and to highlight potential ways of improving public health and safety. At the same time, however, it is essential to avoid generating unwarranted optimism by reporting findings as breakthroughs or miracle cures, or raising fears and anxieties that cannot be supported by the data.

4.5. Is it safe?

Journalists are often concerned about the safety of a particular development or new technology, reflecting the rise in the prominence of the precautionary principle in policy and public decision-making. Public health scientists are often reluctant to respond to the media by saying something is absolutely safe because there are usually important uncertainties. Audiences or readers may interpret this as equivocation or a lack of conviction.

4.6. Complaining

Public health researchers who believe their work has been inaccurately reported or that its significance has been distorted should not hesitate to protest, both to the journalist concerned and his or her editor, preferably in a letter intended for publication. Although it may be true that the immediate consequences of misrepresentation will not be ameliorated by this action, editors do read correspondence with care and may pay attention in the future [12,13].

The principles and techniques of effective media communication are summarised in Table 2.

5. Future perspectives

Global intersectoral and interagency collaboration and cooperation, and clear policy mandates, are needed to encourage and ensure the rapid worldwide sharing and dissemination of information on emerging zoonotic disease outbreaks.

One forum that already exists to promote cooperation is the Communication Initiative network, an online space for sharing the experiences of, and building bridges between, the people and organisations engaged in or supporting communication as a fundamental strategy for economic and social development and change [14]. It does this through a process of initiating dialogue and debate and giving the network a stronger, more representative and informed voice with which to advance the use and improve the impact of communication for development. This process is supported by web-based resources of summarised information and several electronic publications, as well as online research, review and discussion platforms.

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