

Management of information and communication in emergencies, disasters and healthcare crises

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RECEIVED:

30-10-2006

ACCEPTED:

28-4-2007

CONFLICT OF INTERESTS:

None

We rather frequently ask ourselves whether we are sufficiently well informed, here in Spain, regarding situations of health care emergencies and crises. Considering that there are at least four different points of view (technical, administrative, political and mass-media) that may originate a possible disinformation, yet admitting the good functioning of the present Spanish epidemiological alert and public health vigilance network, we should agree that the main reason for disinformation must be found in deficiencies in the communication of risks, particularly during the management of such situations. We here define and analyse the risk information strategies and discuss the phases of an adequate communication plan, beginning with a true audit of vulnerability. The characteristics are discussed that the spokesman of an organisation should have in order to act as the person responsible for the transmission of the message, together with the peculiarities of the message's contents and the mode of presentation in order to achieve the confidence of the public. Finally, the various journalistic models and substrates (written press, radio, television, Internet) are presented and elaborated that will allow the transfer of information at times of crises and health emergencies. All professionals of urgent and emergent care should be fully aware of these aspects, thus avoiding and preventing possible errors in credibility and informative guarantee, but most particularly those who, because of their level or position, are held to be responsible for communication management within their respective institutions. [Emergencias 2008;20;117-124]

Key words: Information. Communication. Risks. Crises. Emergencies. Public health. Disasters.

Introduction

How many times have we wondered whether we are being provided the right information in Spain, especially in terms of safety, healthcare and consumption? Have organisations provided sufficiently reliable answers? Or, on the contrary, did they fail in transmitting the confidence and messages that we expected?

Actually, more than 25 years have gone by since the massive poisoning in the spring of 1981 which was an epidemiological puzzle that started as an outbreak of atypical pneumonia in the Madrid metropolitan area and became known as the "toxic syndrome". Some people continue to think that the origin of the poisoning was more probably caused by the ingestion of tomatoes that had been treated with organophosphate pesticides¹ than by the use of colza oil denaturalised

with anilines^{2,3}. Another example is constituted by the crossed and contradictory messages which came from different healthcare and political managers on the episodes of meningitis in 1997. Was there really an epidemic? Or were they uncontrolled cases, the need for massive vaccination or maybe just panic?⁴⁻⁷ And what about the onco-haematological cases in the children in Valladolid whose schools were close to mobile phone services antennas?⁸ In the repeated outbreaks of legionellosis (48 since 1980, affecting more than 2000 people), has it been confirmed if they were caused by refrigeration modules, air cooling towers or showers?⁹ Were there any cases of bovine spongiform encephalopathy in humans in Spain? How long were the values of copper and heavy metals altered in the food chain of birds, fish and crustaceans in the area of Doñana-Bajo Guadalquivir as a consequence of the toxic

spillage from the Aznalcóllar mines in 1988?^{10,11} Did any case of Severe Acute Respiratory Syndrome (SARS) reach Spain?¹² Or even, must avian flu be considered as a pandemic or a challenge for public health?¹³

In the first place, it should be determined whether this seeming lack of information is caused by a technical, administrative, ideological or media-related problem, and regardless of its motivation, whether it seems ethical. In my opinion, Spain has an extraordinary net of epidemiological monitoring – both central and regional – equipped with outstanding resources and excellent professionals that would initially transfer the responsibility to political leaders in the different administrations with competency in this area. All of this must be done obviously, without avoiding the participation of the media¹⁴⁻¹⁶.

Emergencies and health crises

When healthcare emergency situations extend to community health, they are normally known as “crises” in the international literature¹⁷⁻²¹. Crises happen with a certain frequency even in developed countries and they comprehend very diverse problems that range from abnormalities or exceptionalities in the institutions of the system (medical

errors, technology failure, staff strikes, hospital infections, waiting lists, etc.) to accidents with multiple casualties, disasters or epidemiological alerts of different degrees of complexity (Figure 1).

The approach taken by public health managers must be very sensitive in these situations. They must be familiar with the epidemiological basis and they must define lines of intervention in order to transmit on one hand, a feeling of protection to the population and on the other hand, adequate information to guarantee the safety of the population.

In recent years, public and private institutions have adopted new strategies to face healthcare crises and these have gone from purely healthcare arenas to political and social backgrounds where the media factor is more relevant. The main objective is to protect the population – through comprehensive security resources – and to spread the information through communication.

In this sense, the terrorist attacks in the Tokyo underground²², the two buildings in the New York World Trade Centre and the Pentagon²³, the trains in Madrid²⁴ and the underground and buses in London²⁵ have prompted governments of the European Union (EU) countries and international institutions accountable for the public safety and protection to revise and reinforce their policies for prevention and response to emergencies. They



Figure 1. Some examples of healthcare crisis situations.

have improved their own plans and have changed the resources dedicated to fight and attenuate the consequences of this type of indiscriminate attacks²⁶.

The EU itself, convinced about the necessity of minimising the risk and improving the offer when facing these situations, has created and developed the Health Security Committee (HSC) with the aim to complement national measures by rapid, homogeneous, joint actions²⁶.

In addition, the SARS epidemic¹² and the outbreaks of avian flu¹³ which spread to some European countries in the last two years, have shown a new dimension of modern public healthcare and have prompted a deep reflection on the defence mechanisms against transmissible diseases. Therefore, coordinators in the World Health Organisation (WHO)²⁷ and the Early Warning and Response System (EWRS) of the EU²⁸ made it possible to adequately prepare human and material resources for handling this type of episodes.

The European Centre for Disease Prevention and Control (ECDC)²⁹ has also recently been created. Its headquarters are in Stockholm and it aims to facilitate cooperation in community healthcare emergencies using measures which can be medical but also related to the public, civil protection, commercial safety and migratory movements.

Therefore, it seems obvious that when elaborating strategic plans for healthcare crises, some essential elements should be considered in their development, such as scientific advice, structures for liaison, management and control, preparation of the healthcare sector and other groups and organisations, and of course, information and communication management in these critical situations.

Communication of risk

Risk is a phenomenon that is in some degree closely related to any human activity. It could even be said that the sole fact of living constitutes a risk in itself as there is always the possibility of being harmed, by natural, man-made or technological causes. Its evaluation analyses the information on the characteristics of a substance or an intervention, studies the level of exposure of a given community and specifies the degree of harm to the health^{17-21,30,31}.

In everyday life we are surrounded by risks and individuals, that are sensitive to them, feel the need to identify, control and avoid these risks as

far as possible. Therefore, it seems obvious that in democratic societies with a certain level of welfare, the administrations should take responsibility for analysing, monitoring and managing their problems. Nonetheless, even in cases in which these events have not become dangerous or harmful situations, it is essential to provide citizens with information transparency: the communication of risk.

For the WHO, communication strategies constitute a very important component of the management in every outbreak of infectious diseases and are absolutely essential in the case of pandemics^{13,32}.

Correct and appropriate information is essential to minimise undesired social disturbance and economic consequences, but also to optimise the effectiveness of response. However, for the Centre for Disease Control and Prevention (CDC)³³, this is the attempt of science and public healthcare professionals to provide information that allows the individuals and the community to make the best decisions during a crisis in which their safety or their welfare is affected.

Sandman³⁴ defines communication of risk as the group of abilities and knowledge to communicate adequate information about a healthcare crisis to society, admitting the logical uncertainty without trying to completely eliminate the concerns. In order to do this, we need to plan, identify languages, manage perceptions and look for points of balance. Covello^{17,30,35} introduces the criterion of information exchange between the parts in question, especially about the nature, magnitude, significance and control of the risk.

The Department of Public Health in the United States defines this activity as a complex, multidisciplinary, multidimensional and comprehensive process that can not be reduced to simple information campaigns but that must include the management of associated conflicts and avoid their minimisation or elusion³⁶.

One of the main differences between communication of risk and communication of the crisis lies in their origin. The first is associated with the identification of its mechanisms and the efforts in the long term to persuade the society to adopt healthier habits. The second is informative, infrequent and based on both already known and unknown facts. However, they interact, even though communication of risk is normally more controllable and less limited than communication of the crisis. Reynolds^{37,38}, Seeger³⁹ and Sellnow⁴⁰ have described the efforts to try to combine both concepts in healthcare emergency situations and dis-

asters. In any case, there are myths, which are very well extended in the population and must be eradicated. For instance, the belief that there is not enough time or resources to have a communication plan or programme or that to inform the public about risks is associated with the probability of increasing panic or, finally, that almost none is responsible for the transmission of these alert messages and they do not involve any individual or professional. There are key actions against these myths that the different administrations must instil among their professionals and basically among their epidemiologists.

The communication plan

The news is the transcription of an event that presents specific characteristics: magnitude, exceptionality, novelty or reiteration, special relevance, important area or population affected.

In this sense, the message we must send to society must respond to a number of questions (what, when, how, where, why and most of all, what has been done, what is being done, what is going to be done and in what time) and it must have a content (true, believable, real, clear, concise, complete, coherent, contrasted, understandable, structured, simple, non-judgemental and non-speculative) and a shape (early, aimed to a target population, periodical, competent, that provides trust and tranquillity and at the same time shows interest, concern and experience) and moreover, it must cause positive changes in the

collective behaviour of the population and influence individual attitudes and conduct⁴¹.

In order to do this, a communication plan must be elaborated with the aim to restore security without causing unnecessary alarm. There is no specific model or defined rules but it must be done exclusive from the point of view of health-care and following the different times and stages of the operative decision (Figure 2). It must also be done with a sequence of interventions (previously, in the early stage of the event, in the maintenance stage, in the resolution stage and finally in the assessment and analysis stage) with the formula that is most adjusted to the organisation, with an extensive knowledge of the background, with a sole source and a specific aim: to restore trust, without alarming but also without discriminating⁴¹.

It must be clear that, in order to adequately elaborate a policy for communication of risks, an initial vulnerability assessment is needed. Through this assessment, we must define, identify and catalogue the possible threats of a region or area. We must also start the preparation of basic information, specify the target population groups and their needs, define the objectives, establish the parameters of ethical behaviour in communication, form a team with the adequate training in the subject, train professionals to elaborate messages through modern technology or even have a web site available to provide information.

In the early stage of the crisis, the spokesperson must become known, define clearly two or

BEFORE

- Define each emergency
- Identify the objective
- Define needs
- Specify the end of the communication
- Establish ethical parameters
- Know availability of resources
- Prepare a website
- Create a communication office
- Reserve a physical space
- Develop a net of people in charge

INITIAL STAGE

- Identify the spokesperson
- Define 2-3 messages
- Coordinate periodicity
- Programme the visits of authorities

MAINTAINANCE

- Facilitate technical information to media
- Watch what is published
- Avoid corrections, but correct
- Transmit capacity of resolution

RESOLUTION

- Know the reduction in social interest
 - reinforce messages
 - discard the negative
 - emphasise the reason and the risks
- Assess the communication system
- Take advantage for training
- Plan new strategies

Figure 2. Communication plan: sequence of interventions.

three key messages, coordinate the periodicity in which messages will be sent and programme the possible visits of the authorities to the area. In the maintenance stage, we must provide the media with technical information, observe what is being published to correct possible mistakes as soon as possible – with good judgement and prudence – and to transmit confidence and capacity of response. In the resolution stage, when the social interest decreases dramatically due to the reiteration of the information, messages must be reinforced, discarding the negative aspects and putting emphasis on the positive ones. Finally, in the assessment, we must take advantage of the lessons learned for training new managers and for planning strategies for improvement.

Taking political and triumphal views leads inevitably to utter failure. It must be remembered that silence is always negative and that the first moments are normally critical in terms of information. We must never improvise, exaggerate or underestimate, take for granted, reveal confidential information, retain data, give opinions, go ahead of the investigation, speculate, lie or blame.

It is not appropriate to mix messages from multiple experts, facilitate late information, emphasise an affirmation (credibility is lost), leave rumours without correcting them or use deficient spokespeople.

Society requires truthful information and in the right timing and this urges healthcare organisations to facilitate it correctly.

Social and political repercussions of small mistakes in communication can be – and in fact, have been – huge and vital. We must remember that once we have sent information that is wrong or that can be misunderstood, it is virtually impossible to fix the situation. We must not forget what Vidal-Beneyto⁴² has recently reflected on and that was already put forward by the Research Committee on Sociology of Communication, Knowledge and Culture in 1978, “communication in the media does not reproduce or represent reality, but it constructs it and ends up imposing it because it is more credible than the conventional one as it produces more effects...”⁴³. Society responds by not recognising what is not in their interest, prioritises informal paths (especially rumours that only acquire full effectiveness when they are legitimised and magnified by the media), is more sensitive to what affects its negatively, is favourable to institutions that initially inspire confidence and is normally very influenced by opinion leaders.

Models for communication

In situations of crisis, information can be sent through the three usual means: press, radio and television. This does not exclude the use of other technologies such as e-mail or blogs. In any of these, information can adopt conventional formats (statement, information note, press conference, interview, debate, discussion group) although it is recommended that one-person models be preferably used in these circumstances as they are more rapid and direct. Multiple (conference) or individual models (messages to the different media, including the agencies) can be used. As we need to inform in real time and with a certain degree of immediacy to avoid that what is being said is obsolete, it is necessary to do live presentations, even if the media (generally radio and television) repeats the information later indicating the time it was received.

In non-written models the spokespersons of the organisation must be perfectly familiar with the incident, the setting and the intervening institutions and at the same time they must have certain characteristics (voice, expression, gestures, empathy) that satisfy the receiving public and increase the credibility of what is being said. A journalism aphorism states that “if you want them to understand you, say three things, if you want them to retain, say one”. A brief, focused and simple speech is much more effective than one which is long, diffuse and complex⁴¹.

The spokesperson must use short sentences, with direct and almost familiar language, about ideas that must be previously specified. They must make pauses that are not too long, use positive messages that advance good news and place headlines at the beginning of each intervention or key point. They must show security and transmit confidence, coherence with the style, go from the more specific to the more general (never use abstractions) and to adjust the tone of voice and expressiveness. In television, we must look at the camera – at the end of the day, to address the public – use gestures (without exaggerating) and try to cause impact in the presentation. It is essential to make a short but correct introduction as to the position, name and surname because as the experts say “if you don’t say who you are, someone will say what you aren’t”⁴¹.

The power and influence that media have in the variability of the opinion of the target population must be recognised. Therefore, management of the information flow must be done by the crisis committee using a communication office. The in-

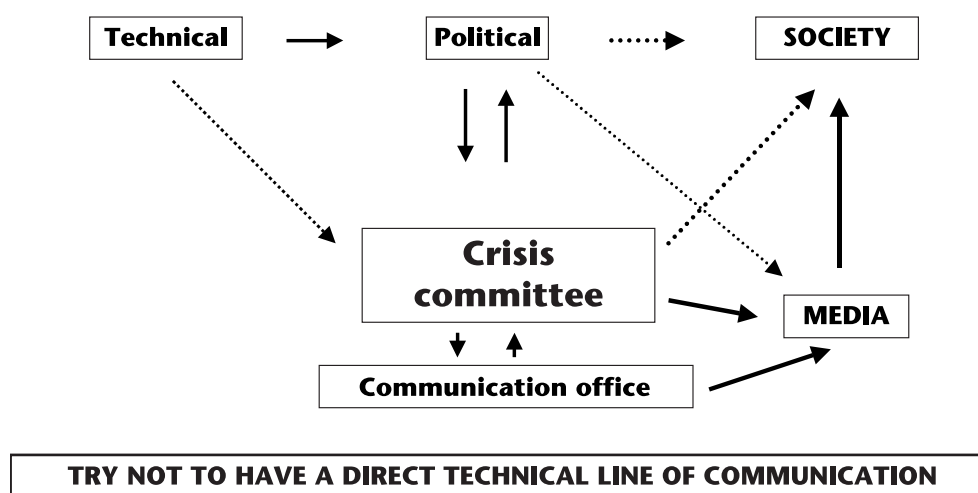


Figure 3. Management of information flow to decide and communicate.

formation originated in the technical area of the organisation must be transferred as quickly as possible to the person in charge of the political area. They will then, depending on the possibilities, transmit the information directly to the public, put it in the hands of the committee and its consultants or send it to the media. In case the crisis committee intervenes, there can also be four paths: to return the decision and the message to the person in charge, send it to the public opinion, to the media or finally, that the office itself sends the message, which is obviously more professional (Figure 3). In any case, a direct line which is exclusively technical must be avoided as normally – and despite experience and skills of the spokesperson – it is necessary to make a certain selection of the contents and most of all, of the shape.

Conclusions

The management of communication and information in situations of healthcare crises, emergencies and disasters is essential in a democratic setting in order to show that the system has transparency and credibility at the beginning, facing risks, during the possible adverse events and after their resolution. It could be said that this is a compulsory security mechanism that the organisation in question - in this case the different administrations of the government - must fulfil. It is also important to send the necessary and sufficient messages to the public about the different moments during the evolution of a complex event (in which the balance of individual and communi-

ty health is altered or can be altered) to try to send a message of calmness and to maintain trust on this responsibility. At the end of the day, it is in these specific circumstances when we can really check the effectiveness and quality of healthcare resources administrations.

It is very advisable that all professionals that are responsible for information in regional services are familiar with the adequate management of these situations. In this sense, it is essential that appropriate training by regularly provided.

References

- 1 Díez G. Nuevas investigaciones señalan a un insecticida como verdadero causante del síndrome tóxico. *Diario 16*, 2 de diciembre de 1984.
- 2 Anónimo. Veinticinco años del aceite de colza, la mayor intoxicación alimentaria en la historia de España. 20 minutos, 17 de octubre de 2006.
- 3 Caba G. La gran farsa de la colza. *The Ecologist* (castellano), octubre 2000.
- 4 Omeñaca F. Pánico en la comunidad. *El País*, 7 de abril de 1997.
- 5 Equipo editorial. Meningitis meningocócica, dos años después. *Rev Ped At Primaria* 1999;1:9-14.
- 6 Cervera S. ¿Vacunación contra la histeria? *El País*, 13 de septiembre de 1997.
- 7 Luna A. Epidemia de pánico o epidemia de desastros. *El País*, 16 de abril de 1997.
- 8 Doncel L. ¡Que no queramos la antena!. *El País*, 18 de octubre de 2006.
- 9 Eurosurveillance. Eurostat, 2005.
- 10 Moreno E. Emergencias en salud pública y salud pública en emergencias. *Urg, Emerg, Catastr* 2003;4:94-8.
- 11 Moreno E, Valdés F. Intervenciones de emergencia en salud pública tras el vertido tóxico por el accidente minero de Aznalcóllar (Sevilla). *Emergencias* 2003;15:157-64.
- 12 Centres for Disease Control and Prevention. Severe acute

- respiratory syndrome (SARS), Information for specific groups and settings, February 2003.
- 13 Organización Mundial de la Salud. Gripe aviar: nota descriptiva. Enero 2004.
 - 14 Orden del Ministerio de Sanidad y Consumo 564/2004, de 27 de febrero, por la que se establece el Sistema de coordinación de alertas y emergencias de Sanidad y Consumo, Ministerio de Sanidad y Consumo, 2004.
 - 15 Ley Orgánica 3/1986, de 14 de abril, de Medidas especiales en materia de salud pública.
 - 16 Ley 14/1986, de 25 de abril, General de Sanidad.
 - 17 Covello VT. Risk perception and communication. *Can J Publ Health* 1995;86:78-82.
 - 18 McCallum DB, Hammond SL, Covello VT. Communicating about environmental risks: how the public uses and perceives information sources. *Health Educ Q* 1991;18:349-61.
 - 19 Routhier D. Crisis communications. Take action now to help stay connected during an emergency. *Healthc Inform* 2006;23:94.
 - 20 Tabar P. Combatting crisis. When did you last revamp your disaster recovery strategy? *Healthc Inform* 2004;21:47-8.
 - 21 Weiss R. Using technology to improve crisis response. *Health Prog* 2003;84:10.
 - 22 Mantecón R. Un ataque con gas tóxico a la hora punta en 16 estaciones del metro siembra el pánico en Tokio. *El País*, 21 de marzo de 1995.
 - 23 Anónimo. EE.UU. sufre el peor ataque de su historia. *El País*, 12 de septiembre de 2001.
 - 24 Anónimo. Infierno terrorista en Madrid: 192 muertos y 1.400 heridos. *El País*, 12 de marzo de 2004.
 - 25 Anónimo. Matanza terrorista en Londres. *El País* 8 de julio de 2005.
 - 26 Comunicación de la Comisión al Consejo y al Parlamento Europeo, de 2 de junio de 2003, relativa a la cooperación en la Unión Europea en materia de preparación y respuesta ante atentados con agentes biológicos y químicos (seguridad sanitaria).
 - 27 World Health Organization. Health action in crises. Annual report 2005, Geneve 2006.
 - 28 Decisión de la Comisión de las Comunidades Europeas por la que se crea el sistema de alerta rápida y respuesta temprana, de 23 de diciembre de 2005. Diario oficial de la Unión Europea de 24 de enero de 2006.
 - 29 European Centre for Disease Prevention and Control. ECDC, 2006.
 - 30 Covello VT. Best practices in public health risk and crisis communication. *J Health Commun* 2003;8 (suppl 1):1-5.
 - 31 Seeger MW, Sellnow TL, Ulmer RR. Communication, organization and crisis. In ME Roloff (Ed), *Communication Yearbook* 21. Thousand Oaks, California, 1998.
 - 32 Thieren M. Health information systems in humanitarian emergencies. *Bull World Health Org* 2005;83:584-9.
 - 33 Centers for Disease Control and Prevention, Atlanta, GA, 2005.
 - 34 Sandman PM. Bioterrorism risk communication policy. *J Health Commun* 2003;8 (supl 1):146-7.
 - 35 Covello VT. Risk communication: an emerging area of health communication research. In SA Deetz (ed), *Communication Yearbook* 15 (pp 359-373), Newbury Park, California, 1992.
 - 36 Ott WE. Emergency messaging & contingency communications. *JEMS* 2003;28:108-10.
 - 37 Reynolds B, Seeger MW. Crisis and emergency risk communication as an integrative model. *J Health Commun* 2005;10:43-55.
 - 38 Reynolds B. Crisis and emergency risk communication. Atlanta: centers for disease control and prevention, 2002.
 - 39 Seeger MW, Sellnow TL, Ulmer RR. Public relations and crisis communication: organizing and chaos. In RL Heath (Ed), *Public relations handbook* (pp 155-166), Thousand Oaks, California, 2001.
 - 40 Sellnow TL, Seeger MW, Ulmer RR. Chaos theory, informational needs and the North Dakota floods. *J Appl Commun Res* 2002;30:269-92.
 - 41 Escuela Andaluza de Salud Pública. Seminario sobre Comunicación en instituciones sanitarias: situaciones de crisis y planes de comunicación. Granada, 2000.
 - 42 Vidal-Beneyto J. La comunicación, entre el rumor y la provocación. *El País*, 18 de febrero de 2006.
 - 43 Comité Internacional de Comunicación, Conocimiento y Cultura (ISA), Lausana, 1978.

Pasado, presente y futuro de la interculturalidad médica en los servicios de urgencias

Moreno Millán E

Con cierta frecuencia solemos preguntarnos si estamos bien informados, en España, en relación con situaciones de emergencia sanitaria y crisis en salud. Entendiendo que existen, al menos, cuatro puntos de vista (técnico, administrativo, político y mediático) para originar la posible desinformación, pero admitiendo el buen funcionamiento de la actual red de alerta epidemiológica y vigilancia de salud pública española, se debe convenir que el principal motivo debe encontrarse en los fallos de comunicación de riesgos, especialmente durante la gestión de estas situaciones. En este trabajo se definen y analizan las estrategias de información de riesgos, y se comentan las fases de un adecuado plan de comunicación, comenzando por una auditoría de vulnerabilidad. Se expresan las características que debe poseer el portavoz de una organización para actuar como responsable de la transmisión del mensaje, y las peculiaridades del contenido y la forma para alcanzar la confianza de la opinión pública. Finalmente se elaboran los distintos modelos periodísticos y sustratos (prensa escrita, radio, televisión, Internet) para trasladar una información en momentos de crisis y emergencias en salud. Todos los profesionales de la atención urgente y emergente deben conocer estos aspectos, y evitar así posibles errores de credibilidad y garantía informativa, especialmente aquellos que, en razón de su nivel o cargo, son considerados responsables de la gestión de la comunicación en sus instituciones. [Emergencias 2008;20:117-124]

Palabras clave: Información. Comunicación. Riesgos. Crisis en salud. Emergencias. Salud pública. Desastres.