# D1.2

## Review of Crisis Communications

1st Reporting period
WP1 Population Behaviour during epidemics

Responsible Partner: CEDAR3

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# EXECUTIVE SUMMARY

## Context

During infection outbreaks, one of the major challenges has always been communicating with the population in order to influence behaviours, reduce the spread of disease and even avoid panic. With increasing understanding and recognition that human behaviour significantly impacts disease transmission it is vital that we continue to improve and understand the way in which we communicate with the public. As pointed out by Dr Jong-Wook Lee, Director-General, WHO in 2004, (WHO, 2005, p. viii), "We have had great success in the [last] five years in controlling outbreaks, but we have only recently come to understand that communications are as critical to outbreak control as laboratory analyses or epidemiology."

## Aim

This report has been produced in order to;

- Consider the key components and issues of Outbreak Communications
- Identify the issues that need to be considered by those shaping Outbreak Communications
- Ensure that past mistakes are avoided, good practice and lessons have been learned and more successful communications is achieved

## Approach

CEDARthree's approach has been to focus on findings relating to outbreak communications issued in response to epidemics and pandemics affecting Europe (EU Member State) within the last 10 years and in particular the 2009 flu pandemic. The research, which is evidence based, broadly centered on the following key aspects of outbreak communications; Type, Source, Media, Timing of Dissemination, Public Acceptance and Current Pandemic Plans. Although the objective has never been to produce definitive recommendations inevitably lessons have been learned and good practice identified which in time will be clarified and honed into a comprehensive 'tool set' as an outcome from the overall TELLME project for use in future outbreak communication situations.

## Summary of Key Findings and Themes

### Sources

The source of information in a crisis can impact the way in which communications are interpreted, perceived and accepted. Those that provide the message and the means by which they communicate it have varying impacts. Furthermore different individuals and groups will respond differently to various media. Health care providers, particularly local and regional physicians, remain a trusted source of information and, perhaps surprisingly, NGOs are often considered more trustworthy than Governments.

Messages delivered by television and radio are generally better regarded by members of the public than other sources of information. New technologies however, including social media and websites, are also being widely used by the public to gather health information.

It is apparent that the Health Communicator's strategy will benefit from using all the communication channels and medium available in order to meet the varying needs of the public.

### Type

The type, tone and terminology used for communications in a crisis should be appropriate to the understanding and knowledge of their intended audience. Health Authorities must communicate with empathy and understanding. It is vital that they are open and address the needs and concerns of the public. Speculative and inaccurate reporting will only increase public fear and scepticism. Trust and credibility need to be nurtured and can be eroded through inappropriate communications. In particular it is crucial that messages, preferably from a variety of sources, do not conflict and are consistent. Symbolism, as an aid to communication, can be used in a positive way to enhance messages however care must be taken to avoid the converse with inappropriate symbols creating a negative effect. Official announcements need to be enforced by on-going public awareness campaigns and core messages need to be repeated often if they are to be widely accepted.

### Media

There is a wide variety of different media available for communicating with the public. The Health Authority's chosen strategy needs to be appropriate for and reflective of the diverse audiences for which it is intended. Whilst the mass media, including the modern 24/7 news media, have an enormous impact on the public's understanding and perception of a crisis choosing the right blend of media to ensure that messages reach those they are intended for must also embrace modern technologies and most notably social media.

Social media is becoming increasingly prominent and is a powerful means of leveraging large sections of the public. When used effectively it will assist Health Authorities to be more in tune with their audiences. This together with telephone hotlines, which have also proved an effective means of disseminating messages, and appropriate and trained spokespeople, will all help to take the pressure of primary care services.

### Timing

Early detection and decision-making are crucial in managing an outbreak situation. Similarly any announcements from the Health Authorities need to be made as early as possible. Informed and accurate communication should also continue throughout all phases of a pandemic and on a frequent basis in order to avoid speculation and false reporting. Authorities do however need to be mindful of information fatigue generated by repeated and unfulfilled scares.

### Public Acceptance

Trust is one of the most significant factors related to successful crisis communications and will affect people's judgements and subsequent acceptance of recommended measures. Trust needs to be built up over time and can be eroded by ineffective communications. In this regard it is important for Health Authorities to be open and honest and to acknowledge uncertainty.

It is also vital for Health Authorities to understand the needs and interests of the public. Fears and concerns need to be acknowledged however mistaken they might be. Health communicators must understand and meet the needs and challenges of specific groups too. Messages clearly need to be personalised and relevant to the audience.

Public adoption of protective measures is strongly affected by perception, not only by the perceived efficacy of the proposed protective measures but also by the perceived risk of contracting the disease. It is

clear that media reporting can significantly influence public perception and therefore working closely with the media the Health Authorities can help to improve message accuracy and public understanding.

## Current Pandemic Plans

Crisis communications plans should be prepared as early as possible and then staff trained and exercised in their use. When the next pandemic occurs is not the time to be developing a crisis communication plan! Despite this few organisations have detailed crisis and risk communication plans in place. The crisis communication plan should be developed as a separate task, but absolutely supportive of, the actual crisis management plan. Within the plans, Health Authorities need to embrace new technology, in particular social media, and allow a two way flow of information between officials and the public.

Understanding and addressing the needs of stakeholders is vital for effective communications. It is important to think through how planning scenarios are released to the public so as to ensure a balanced and realistic view is communicated. It is also important to have a strategic and planned approach for working with the media. Plans need to be flexible to adapt to the sometime unpredictable and changing nature of an outbreak situation and they need to embrace the whole spectrum of communication channels and medium available in order to reach the varying needs of the multi-cultural public audience. To do this effectively greater coordination is required among EU stakeholders to ensure the messages promulgated are not only based on the best available advice but are also consistent.

## Next Steps

Crisis communications plans should be developed as early as possible in preparation for a possible pandemic. The plans should be based on the same principles of those developed for any crisis or disaster but additionally include tasks based on the lessons and good practice learned from previous pandemics. An objective of the TELLME project is to produce a ‘tool set’ of protocols and actions to assist in the development of outbreak communications planning and implementation.

# 1. Introduction

## 1.1 Background

In April 2009 a novel strain of an influenza virus was identified in Mexico and the United States of America which had the potential to trigger a global pandemic. The novel strain was identified as an H1N1sw, and the pandemic status was subsequently confirmed by the World Health Organization (WHO) in June 2009 (Hine, 2009). Whilst the virus turned out to be milder than anticipated, it spread rapidly throughout various countries across the world leading to an estimated total of 201,200 respiratory deaths and an additional 83,300 cardiovascular deaths associated with the 2009 pandemic influenza A H1N1 (Dawood et al, 2012). Unfortunately, the threat of a future outbreak remains very real, particularly in the context of the highly connected global community in which we live. As previously demonstrated by the SARS outbreak in early 2003, emerging infectious diseases can spread rapidly throughout the world and can have serious implications for the global community both in terms of public health and the economy (De Zwart, 2008). Having plans in place that incorporate lessons from the past to ensure a swift response to any future challenge is of course important. Whilst there are many uncertainties as to how the next outbreak might manifest itself, one certainty is that non-medical procedures will be just as important in containing a future outbreak as the production of drugs, vaccines and other medical solutions (Central Intelligence Agency (CIA), 2003).

The medical community remains very concerned about the threat of new and re-emerging infectious disease (Setbon & Raude, 2009) and the potential impact it could have on human populations. There are a range of factors that contribute to the risk of another pandemic. Many of these factors lie outside the traditional public health domain and as such require widespread collaboration in order to mitigate their impacts (De Zwart, 2008).

The continuing growth of international travel, population, urbanization and global communications are just some of the factors which will have an impact in one way or another on the severity and spread of any future pandemic.

With the control of outbreaks of infectious disease heavily dependent upon population behaviour and an individual's willingness to conform, or not, with recommended preventative measures (Setbon & Raude, 2009), it is vital that we understand how we can communicate more effectively with the public during every phase of a pandemic. In order to do this, it is necessary to understand the different components of Crisis Communication and how messages can be crafted accurately and in such a way that will ensure people will accept and trust what they are being told.

## 1.2 Project Aim

The Aim of T1.2 is to identify and review the key components and issues relating to outbreak communications, summarizing the findings in a comprehensive report.

## 1.3 Scope of Report

The scope of this report is primarily focused on;

- Findings relating to outbreak communications issued in response to Epidemics / Pandemics affecting Europe (EU Member State) within the last 10 years
- The 2009 flu (H1N1) pandemic

The research falls broadly under the following headings; Type, Source, Media, Timing of Dissemination, Public Acceptance and Current Pandemic Plans.

### 1.4 Format of Report

This report on the components and issues of outbreak communications in a crisis situation is formatted as follows:

- Executive Summary containing Aim, Approach, Summary of Key Findings and Next Steps
- Introduction containing Background, Objectives, Scope and this Format of Report
- Key Concepts of Crisis Management containing the Characteristics of Crisis or Disaster
- The Importance of Communications in Outbreak Control
- A review of the key components of Crisis Communications including: Source, Type, Media, Timing, Public Acceptance and Current Pandemic Plans
- Conclusion and Recommendations
- References of the evidence based researched recorded throughout the Report.

## 2. Key Concepts of Crisis Management

A pandemic is an epidemic occurring worldwide or over a very wide area, crossing boundaries of several countries, and usually affecting a large number of people (WHO, 2007).

A pandemic therefore is certainly a crisis, which itself may be defined as 'an inherently, unstable and complex situation that represents a threat to the strategic objectives, reputation or existence of an organization' (BSi, 2011, p. 5). Crisis management is the process by which the local, national or international response manages the wider impact of a crisis such as the safety of people, business, infrastructure and media coverage. Crisis communications is at the very heart of this process and is the bedrock on which crisis management is built (BSi, 2011).

### 2.1 Characteristics of Crisis or Disaster

To consider the issues of crisis communications at the outbreak of a pandemic it is useful to consider the characteristics of a crisis or disaster.

Crises caused by natural or man-made events such as a fire, flood, earthquake, technological accident or terrorist bomb are often unexpected and sudden. Some crises however develop over time such as a pandemic, which although initially not so dramatic as a sudden crisis, can develop remarkably quickly. Modern travel patterns may significantly reduce the time needed for pandemic influenza viruses to spread globally to a few months or even weeks (GlobalSecurity.org, 2012, para. 12). The timing and location of a crisis may be unpredictable and the impact cannot normally be contained within boundaries. Crises often cause chaos or at the very least confusion and uncertainty. They have a very human impact. There may be casualties, people may be frightened, it may be difficult to understand what has happened or even 'act' in response and there is a thirst for knowledge (Blakie et al, 2003). The first priority when responding to a pandemic, as in the response to any crisis, is the safety and well being of people.

### 2.2 Making Order Out of Chaos

Crisis management must therefore be aimed at making order out of chaos, providing a timely and effective response to ensure the safety of people, and returning the organisation to normality as quickly as possible.

Organisations must be prepared before the crisis – that is, now – and therefore the requirement is to have a well-rehearsed plan based on good communications.

Public scrutiny following a crisis can be intense, and there are many examples of organisations that have suffered a crisis without an apparent crisis management plan that have subsequently not survived (Toft & Reynolds, 2005). A good crisis management plan, properly implemented, will not only focus a practical response but will also do much to provide confidence to the governments, responding organisations and the public that the authorities are able to cope.

While there is undoubtedly a risk of crises occurring, it is difficult to predict exactly what might happen, when or where. It therefore makes good sense to develop a generic crisis management plan to ensure that there can be a focused response to any type of crisis (which would include a pandemic) of whatever magnitude, whenever and wherever it might occur (UK Cabinet Office, 2011).

## 2.3 Geographic Nature of Disasters

Crises are normally geographic in nature. In other words, they often start in a geographic location where the immediate effect is local and from where the impact might spread rapidly. The effect is similar to a pebble being thrown into a still pond. If it is imagined that where the pebble enters the water is where the crisis happens, then the ripples that spread out represent the impact. The twin towers disaster on September 11 2001 was like a boulder being thrown into the pond, with the ripples being waves of impact that are still going round and round the world today. It follows also that the response to a major crisis must counter the impact, and that a major crisis will require a major response (US Department of Homeland Security, 2006).

Once the geographic nature of a crisis is understood, it is easy to see why a key principle of crisis management is that responsibility must remain at the local level, where the immediate response to an incident will start. At the same time, support for the local level must be coordinated throughout the organization. In a pandemic this would equate to coordination at every level within a country and internationally. Crisis communication remains the fundamental conduit for the gathering of information and for the dissemination of the planned response (WHO, 2005b).

## 2.4 Media Handling

When a major incident happens there are two ‘stories’ – one is how the organisation responds and the other is how the media reports how the organisation responds. The public are influenced by what they read and hear in the media. This leads in some cases to the media’s interpretation or perception of what has happened becoming a kind of ‘reality’

As a result of the growth of 24-hour news channels, it has become necessary to plan carefully how the media will be handled. The media’s requirement is to inform the public of the facts. They will ask the simple questions following a crisis – ‘What happened, how did it happen and what is being done about it?’ They will soon add ‘And who is responsible?’ The WHO (2005) suggested that these are all understandable questions and should be answered with facts and honesty.

The media are useful. If asked, they will include on their news bulletins contact numbers and links where authoritative information may be obtained. Remember that reporters are human too, they have a job to do and they like to help (WHO, 2005b).

All communications with the media should be coordinated where possible so that a consistent message is disseminated. Responsibility for the media at the scene, however, should be delegated to the front line. Local managers should be enlisted and trained as spokespeople in an emergency. Such a strategy positions the organisation to release information rapidly and effectively, anywhere and at any time, and will satisfy the demands of the media. Importantly, it will also reflect the organisation's ability to cope with the crisis.

### 2.5 The Two Phases of Crisis Management

There are two clearly defined phases in crisis management – the immediate response and the recovery (BSi, 2011). Part of the first phase, the immediate response, is identifying and confirming that there is, in fact, a crisis. This is not always as easy as it seems, as some crises appear to creep up almost unnoticed and are sometimes known as 'rising tide crises'. To counter this, it is good practice to use a Crisis Impact Table that quantifies the impact of an incident against pre-determined criteria under different headings such as Operations, People, Reputation, Legal and Finance. The table acts simply as a tool to aid the decision on when to invoke the crisis management plan. A common adage is 'If in doubt call it out!' That is, if undecided, invoke the plan and call out the crisis management team. Not to do so may mean that it is often necessary to try to catch up rather than taking control in a timely way with positive, proactive action.

The recovery, or second phase of the response, should start almost at the same time as the immediate response and run parallel with it. Recovery is a project in its own right that requires planning and coordination. An early start will speed the return to business as usual. As the immediate response tails off, so the recovery will become the priority.

The key concepts of crisis management, which are based on the characteristics of crises or disaster, have relevance and a resonance to the issues concerned with outbreak communications and the preparation of crisis communication plans.

## 3. The Importance of Communication in Outbreak Control

As cited in The World Health Organisation's (WHO), Outbreak Communication Guidance (2005, p.1) "Communication, generally through the media is another feature of the outbreak environment. Unfortunately, examples abound of communication failures, some of which have hampered outbreak control, undermined public trust and compliance, and unnecessarily prolonged economic, social and political turmoil. The World Health Organization (WHO) believes it is now time to acknowledge that communication expertise has become as essential to outbreak control as epidemiological training and laboratory analysis."

### 3.1 Risk Communication

WHO (2012) state that, "Risk Communication is an interactive process of exchange of information and opinion on risk among risk assessors, risk managers, and other interested parties" (para.1). The aim of risk communication is to help people at all levels of society make more informed decisions about the threats to health and safety (Vaughan & Tinker, 2009).

Risk communication differs from Crisis Communications in that it focuses on what might happen as opposed to what has or is happening. Risk and Crisis Communication also differ with regard to when the communication occurs. Whilst Risk Communication is an on-going process that takes place before an emergency occurs, Crisis Communication describes the messages that are delivered during an emergency

event (Ferrante, 2011). In the context of an outbreak situation both risk and crisis communication play a key role with the success of Crisis Communications to some extent determined by the success of any prior Risk Communication.

The issues facing Health Risk Communicators are complex not only incorporating medicine and epidemiology, but also ethics, politics, perception, psychology and culture, all of which influence the interpretation and impact of messages and the willingness of individuals to act as instructed (Menon, 2008). The development and implementation of effective health risk communication strategies before a crisis occurs are therefore vital for protecting public health when a crisis happens.

## 3.2 Crisis Communication

As already stated crisis communications is the bedrock of crisis management. In the context of a flu pandemic, (crisis) communications must successfully instruct, inform and motivate the public to adopt appropriate self-protective behaviour whilst also building trust and confidence in officials, dispelling myths and rumour and ultimately acting in partnership with the authorities overall strategy (Vaughan & Tinker, 2008).

Crisis communication involves communicating in unpredictable circumstances, the stakes are often higher, the situation may be unfamiliar and the time pressure greater. Decisions and actions may also need to be taken without knowledge of the full facts and in intensely pressurized circumstances. There are also likely to be multiple organizations involved but little time to consult and collaborate in order to reach consensus to the degree that is desired (JHSPH, 2011). The following diagram (Figure 1) shows the information mismatch experienced in a crisis.

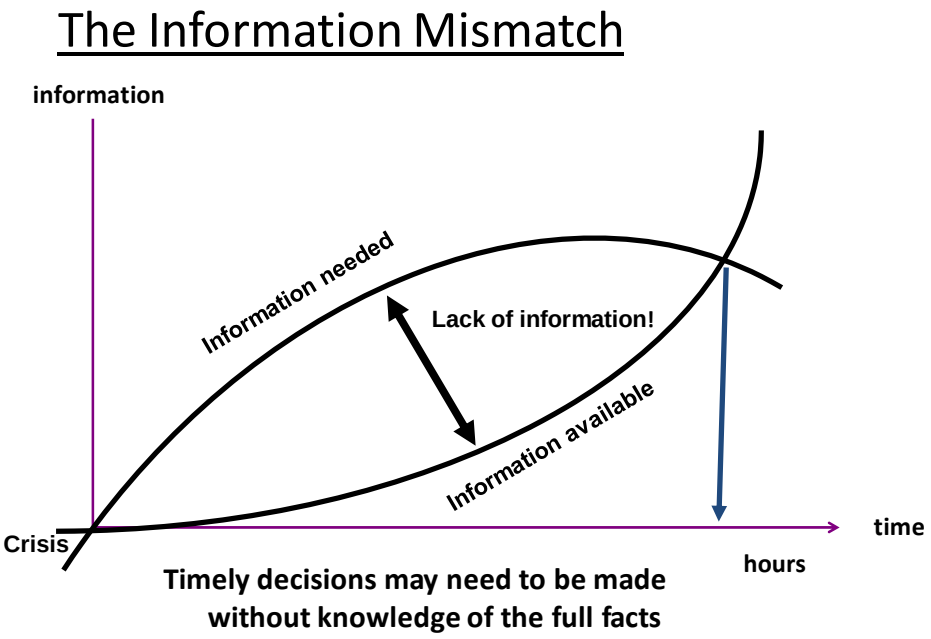


Figure 1 – The Information mismatch

The challenge faced by Official Health Communicators, is that there is a constant tension between wanting to wait until such a time as they can give completely accurate information and the need to provide information quickly. The danger is that whilst they are waiting for a full picture to emerge, the gap will be

filled by speculation, rumour and unofficial reporting. This can however be eased by providing preliminary information, regular updates and aiming to share what you know when you know it. (JHSP, 2011)

In straightforward terms, Crisis Communications involves carefully communicating complex messages in a language that the public understands in order to successfully restore public faith (Menon, 2008).

To complicate the picture further, Crisis Communications may also be influenced by personal ambition, political survival, self-image and individual leadership styles which may be at odds with the overall welfare of citizens and the need to communicate accurate and clear messages, particularly if this involves accepting shortcomings or taking responsibility for failings (Gesser-Edelsburg & Zemach, 2010). There may also be real concern as to the political and economic implications of announcing a crisis, such as putting off foreign investment or lost productivity, that further hinder the transparent sharing of information (CIA, 2003). In Gesser-Edelsburg and Zemach's (2010, p.20) analysis of the Israeli Prime Minister's handling of the Israeli Carmel Disaster, the author considers two risk communication strategies; strategic ambiguity and cover-up risk communication. Both of these different styles and approaches to communication are used in an attempt to 'conceal failure and avoid personal responsibility' with varying success. Such approaches undoubtedly erode the degree of trust held by the public for the authorities', a theme that runs throughout this report and is tackled in more detail later.

## 4. Component 1 – Source

Over the last 15 years, the internet has significantly changed the way in which patients access health information, placing vast swathes of health related information at the fingertips of consumers (Murray et al., 2003). This combined with advances in telemedicine and other technologies now means health services reach far beyond the traditional confines of a consulting room or office (Hesse, 2005).

At the same time, the range and quantity of health related media coverage has also intensified as an ever-increasing number of commentators review topical health related issues. Pharmaceutical companies have also been quick to maximize an increasingly consumer focused society by targeting customers directly with advertising campaigns (Ventola, 2011). All these elements are affecting the relationship between the patient and the physician, the latter of whom may previously have acted as a gatekeeper in terms of the information and advice provided to patients. This has not only resulted in patients educating themselves, but also demanding a greater share in the decision making process (Iverson, Howard & Penney, 2007).

The sources that patients draw upon to access health related information paints an increasingly diverse and complex picture which is in turn influenced by a number of different elements, not least age, sex, culture and education. As might be expected younger, better-educated adults, in particular women, are more likely to access information from the Internet before seeking advice from a physician (Hesse, 2005). Whilst there is some concern that online information gathering by patients may be changing the dynamic between the patient and physician, possibly even reducing the physicians' influence, there is evidence to suggest that it also has the potential to achieve greater patient engagement, increase knowledge and decision making, educate, reduce the potential for information overload and provide patients with the opportunity to connect online with others in similar positions (Iverson, Howard, & Penney, 2007). It is also reported that consistency of messages from a variety of sources helps to reinforce the message and will mean it is more likely to be accepted (Powell, Chapman & Blaine, 2004).

Studies have also highlighted that individual preference for sources of information can vary amongst different cultures. For example a study (Wong, & Sam, 2010) looking at the issues surrounding influenza information sources in Malaysia showed that Malays were significantly more likely to identify television as a main source of information whilst alternatively newspapers and family members were identified as the main source of information by Chinese and Indians respectively. In this same study the 3 most preferred sources of information were identified as television, newspaper and health providers with television as the preferred source of information amongst lower educated groups. This highlights the need to utilise multiple communication channels and medium in order to meet the varying needs of the public. With public behaviour heavily influenced by knowledge and perception, considering information sources and how they are perceived and trusted by the public is important for achieving more effective communications (Van der Weer et al,. 2011).

## 4.1 Official Channels (Government Officials & Health Care Providers)

Whilst the mass media and Internet play a significant role in disseminating information to the public, information from health care providers and other official channels remains an important source of information during an outbreak situation (McCree, Sharpe, Brandt & Robertson, 2006). According to a study conducted in the US that focused on the public's use of and trust in different sources of health information, despite an increasing number of people accessing health information on line, physicians remain the most trusted source of health information (Hesse, et al. 2005). Health care workers and municipal health services have also been found by Kok et al to be considered the most trusted information sources during a pandemic (Kok et al., 2010) with high levels of trust in official sources in turn having a positive impact on the take up of protective behaviour and vaccination. There is however greater scepticism for Government officials and agencies and other formal sources of information with the public placing greater importance on advice and information provided by personal physicians, friends, relatives and colleagues (Mechanic, 2005).

Not only this, Health services and providers have also been found to be the source of information that members of the public most want to receive information from (Van der Weer, et al., 2011) with a desire for the information disseminated by these sources to focus on what to do to prevent and treat infection.

With consistency of message vital for maintaining levels of trust, it is clear that Political Will and cooperation will therefore be needed from all official channels, working hand in hand with the media, in order to ensure infectious disease preparedness is in place and a coordinated and a joined up response can be achieved (CIA, 2003).

## 4.2 Use of the Mass Media

The role of the mass media during a crisis cannot be underestimated (Cabinet Office, 2012). It is through the media (TV, radio, newspapers) that most people first hear about an emergency or crisis situation and it is also the media who contribute significantly to shaping public perception not only of risk, but also of the official handling of a situation (Cabinet Office, 2012).

A review into the effectiveness of public health campaigns (Health Development Agency, 2004) concludes that the mass media offer the best chance of reaching either a large number of people or specific target groups within a short space of time. They also conclude that communications will be most effective when the media are on side and when the behavioural goal is simple, such as immunization.

Whilst WHO have recognised the role of the mass media in epidemic control, recent studies conducted by Gholami et al. (2011) have also highlighted the importance of the media in informing physicians, further highlighting the importance of working with the media to ensure information that is disseminated is as accurate as possible.

The UK Cabinet Office (2012) suggest however, that whilst the public value the information and entertainment provided by the media, public attitude to the media is at times ambivalent. There is a feeling that the media are responsible for wiping up hysteria and sensationalising issues, as was seen during the fuel shortages in the UK during autumn 2000 where exaggerated reporting lead to panic buying in some areas. Whilst some quarters of the media may strive for accuracy, this desire to sell stories and capture market share is seen to be at the cost of providing impartial and factual information resulting in the presentation of conflicting, scandalous, controversial and more exciting perspectives. Understandably, this has in turn lead to feelings of scepticism among the public (Mechanic, 2005), which is thought to be at its highest concerning matters that affect individuals personally, such as health information. Respected media do however play an important role in making scientific information accessible to not only the public but also to medical professionals. One can then conclude that what is important is not to see the media as a single entity, but to understand and work with different mediums appropriate to the audience and situation.

### 4.3 Unofficial Channels (the internet, blogs, on line journalists and websites etc)

In a study (Hilton & Smith, 2010) examining public understanding of the 2009 swine flu pandemic, participants identified the Government and the Media as the two key information sources that would help them to assess the risk of contracting swine flu. However a Hesse, et al's., (2005) report concludes that an ever increasing number of people are turning to the World Wide Web as a source of "first resort".

In recent years, Social Media, which refers to online and electronic communication tools such as Facebook, Twitter, YouTube and blogs, has been set up to share and create content between multiple users (CDC, 2012). Social Media has taken on an increasingly higher profile and importance during crisis situations. Whilst many organizations are now harnessing Social Media to disseminate official communications to their audiences, there is also a swathe of unofficial online activity.

It is reported (EC, 2010) that Social Media was central to influencing public opinion and decision making across Europe during the H1N1sw outbreak in 2009. Websites such as LinkedIn, Facebook, Twitter, Flicker and You Tube have all repeatedly proved an important hub for public communications during emergencies. Certainly Facebook, Twitter and Bloggers were all highly active during the 2009 outbreak, "Facebook's ranking of hottest trends and topics revealed that H1N1sw reached the third position. By some accounts, swine flu mentions topped out at a rate of more than 10,000 tweets per hour." (European Commission DG SANCO, 2010, p.3).

With global membership running at an estimated figure of over 1 billion users (ITU, 2012), Social Media represents a powerful means of reaching large audiences at the touch of a button. Like it or not, it is now a feature of almost any crisis representing a key port of call for many members of the public. The EC (2010) also highlights the increasing importance of bloggers who in some countries have taken over the role of journalists. It is suggested that it should be possible to identify who these key bloggers are with a view to working with them in order to get the desired message across. Social Media does therefore deserve

significant consideration if we are to embrace the full range of available communications to improve the way in which we communicate and reach public audiences during a future crisis response.

An analysis carried out by Collier, et al. (2011) does however caution that whilst Social Media can be a powerful tool for getting messages out to a large audience in 'real time', Tweets tend to be reactive to media trends and can be ambiguous.

### 4.4 Other Sources of Information (pressure groups, anti-vaccination movement, charities and professional bodies)

Studies also indicate that professional bodies, pressure groups such as the anti-vaccination movement and other representative groups also play an important role in risk and crisis communications. A study conducted in 2001 (Cabinet Office, 2002) suggest that charities (Non-government organisations (NGOs)) are thought to be more trustworthy than Government and as such, these groups also need to be considered as key stakeholders when developing Crisis Communication strategies. They may also have a wider reach and are more able to communicate with the 'hard-to-reach'.

The European Centre for Disease Control (ECDC) aims to work with NGOs to increase its reach to wider audiences, in particular the 'hard-to-reach' populations (ECDC, 2009).

The reluctance to vaccinate during the H1N1sw pandemic was partly attributed to the increasingly vocal anti-vaccination movement (P. Shetty, 2010).

## 5. Component 2 – Type of Communication

### 5.1 Appropriate

It is crucial that the response to an outbreak of infectious disease is as proportionate and appropriate as possible. Early reporting and transparent sharing of information is vital for a successful response so that agencies can act swiftly to put in place control measures. In the same vein it is also important not to overreact. The CIA (2003) cites a situation in India in 1994 that was reported by the Government as an outbreak of the plague. This caused worldwide alarm and major economic loses to India only to be declared over by WHO a couple of weeks later.

In order to be effective, Crisis Communication strategies need to vary for different audiences e.g. public, health officials, media, national and generic, local and specific. WHO (2004), also remind us that in order to be effective communicators need direct channels to the target audience. Above all, the goal of communications should be to "help them (the recipients) to act in their own best interests" (Granger, et al. 2002). In order to do this communications must be unbiased and responsible and without vested interest.

Vaughan and Tinker (2008) point to a growing consensus that recognises health communications are most effective not only when they are open but also when they address the concerns and priorities of targeted populations i.e. they are relevant.

### 5.2 Speculative

When the media are inadequately informed, they are more likely to interpret the situation for themselves. This may lead to a hyping up of the situation as seen during the BSE crisis in the United Kingdom (WHO,

2004). In their report, WHO (2004, p.24) state that "Other criticism claimed that the press reported inaccuracies and misinterpretation, which heightened public fear and led to public scepticism regarding the government's competence."

## 5.3 Tone & Terminology

Health communicators must communicate empathetically and with understanding for the public interest, something that was seen as a key failure during the BSE crisis (WHO, 2004). Not only is the tone important when communicating, but also the choice of terminology needs to be appropriate for the audience. "Effective communication systems, including the use of appropriate terminology, are key to ensuring the effectiveness of the response to an incident" (British Standards Institute (BSi), 2010, p.13). Communicators are however faced with the challenge of communicating with audiences who may have no 'shared vocabulary or conceptual background' with the communicator (Granger, Fishhnoff, Bostrom, &Atman, 2002). Use of Greek and Latin terminology to describe BSE disease, for instance, mystified and frightened the public (Harris, O'Shaughnessy, 1997).

Sager and Sharma (2009, p.18-19) suggest that even the term Pandemic may have scary connotations. They state that, "the term pandemic technically refers to a virus that is spreading rapidly between humans in two or more WHO regions. It does not in any way imply that the virus is actually dangerous".

A review of the UK's response to the (Hine, 2010) 2009 swine flu outbreak suggests that terminology used during the outbreak should be revisited. In particular, Hine suggests that the word 'containment', used to describe a strategy to slow the spread of the virus, may have been misinterpreted by some members of the public. It is possible that this lead to a perception that the move from 'Containment Phase' to 'Treatment Phase' indicated a failure by the authorities to stop the virus from spreading.

Whilst scientists are comfortable talking about statistics and odds, the public need more accurate terms. They also like to feel they have some choice concerning the actions that they should take (JHSPH, 2011).

## 5.4 Public Awareness Campaigns

Official announcements need to be enforced by on-going public awareness and education programs (CIA, 2003). It is suggested the UK Government's "Catch it, Bin it, Kill it" campaign was considered by the public to confirm what they already knew. Hilton and Smith (2010) suggest that it may have been more effective if it had encouraged people to challenge their own behaviour.

## 5.5 Standardized and Consistent

Consistency of message is vital. Core messages need repeating and updating to ensure they sink in (JHSPH, 2011). However when multiple nations, authorities and policy makers are involved in a response there is the potential for inconsistency or disagreement. When this occurs the authorities are in danger of losing credibility, which may mean people stop listening to the messages that are being put out (JHSPH, 2011).

Studies have shown that if messages are perceived to be conflicting Government trust will decrease which in turn has an impact on the uptake of protective measures (Van de Weerd, 2011). For instance, during the H1N1sw pandemic many Governments set out a scenario much worse than what was actually experienced which was perceived to be conflicting and contradictory and also contributed to feelings of complacency.

During the 2009 flu pandemic, the UK sought to achieve coordination and consistency by setting up a four nations' health group at both ministerial and official levels. It is reported that whilst it was not perfect, the arrangements worked effectively and helped achieve a common approach (Hine, 2010). It is possible this approach should also be considered at the Europe wide level.

### 5.6 Symbolism

It is suggested that symbolism, deliberate and inadvertent, played a key role in the UK Government's handling of communications during the BSE crisis (Harris & O'Shaughnessy, 1997). Powerful images such as, 'Daisy' the cow staggering about as a result of the effects of BSE, the Agricultural minister Mr Gummer who fed a beef burger to his four year old daughter in at attempt to prove that British beef was safe for public consumption, the distressing images of the victims of Creutzfeldt-Jakob Disease (CJD) and the burning of cattle pyres all became synonymous with the Crisis and were all used by the Government to communicate with the public. Similarly, the wearing of a facemask became the defining symbol of the Severe Acute Respiratory Syndrome (SARS) outbreak.

These symbols intensified public concern and affected public attitudes and it is argued that the ability to use symbols in the mass media - verbal, non-verbal, pictorial, musical etc - are vital both for persuading the public and providing meaning (Larson, 1995). Whilst in the BSE crisis the UK Government became a victim of symbolism, in that they only served to magnify the failings and poignancy of the crisis, it is argued (Harris, O'Shaughnessy) that effective use of symbols that capture the public imagination can enable communicators to completely redefine a situation.

## 6. Component 3 - Media

There is a wide range of media and sophisticated technology available for enhancing our communications capability in response to a potential pandemic. Newspapers (daily print and online), radio including Public Service Announcements (PSA's), Internet - rapid response facts and figures through websites and social media, spokespeople- conducting briefings and interviews, print material- brochures, pamphlets, written and outreach materials for communities without Internet access , television – broadcasts, advertisements and documentaries, telephone – hotlines, text messages and information lines, are all important forms of communication in a crisis (JHSPH, 2011).

The Internet, email and teleconferencing were all reported to have assisted the information dissemination process during the SARS outbreak in 2003 (CIA, 2003). In response to the pandemic flu threat, a wide variety of media was also used in an attempt to maximize coverage and build awareness including; posters, pamphlets, TV commercials, printed advertising campaigns, handbooks and websites (Menon, 2008).

The Centre for Disease Control (CDC) (CDC, 2011) promote their annual national awareness campaign through a whole range of media outlets such as; print and internet adds, matte articles (consumer related articles), TV and radio public services announcements, personal testimony videos featuring parents who have been greatly affected by influenza, radio interviews, bites and b-roll packages (video highlights and interview 'snippets' put together to produce a story), special events, websites, magazines, and collaboration with partners.
As pointed out by WHO (2005b), what is important is that the communications strategy is appropriate for and inclusive of the diverse society for which it is intended. It is known that different cultures and groups

respond differently to, and are more accepting of, different forms of media (Wong & Sam, 2010). Such variations of media need to be catered for within the communications strategy.
It is unlikely that journalists and the mass media will meet the needs of all the differing types of populations and segments of society during a health-related emergency (WHO, 2005b). According to WHO these include; elderly populations, disabled people, homeless people, housebound populations, racial and cultural minorities, linguistic minorities, illiterate populations, transient populations (for example, tourists, business travellers and migrant workers) and institutionalized populations. Therefore, choosing the right blend of media to ensure that messages reach those they are intended for is another important aspect of the Crisis Communications strategy. It also strengthens the argument that health communicators should seek to get messages out through a variety of different channels.

## 6.1 Media (Broadcast TV, Print and Radio)

News media has an important role to play in disseminating scientific information to the public, particularly in areas of risk perception. Press releases, press conferences and other traditional means of communicating are reported to have been the most widely used form of communications during the 2009 H1N1 Pandemic (EC, 2010). Whilst the Media has often been accused of over-hyping health risks, a review of 2,734 news articles published in eight UK national newspapers between 1 March 2009 and 28 February 2010 (Hilton, Hunt, 2011) concluded that coverage was largely measured and that their role in communicating factual information should be welcomed. Hine (2010, p.16) also supports this finding in her own review of the outbreak. She credits the UK government's frequent media briefings "weekly briefings, Q&A sessions, regular releases of facts and figures" with successfully keeping the media informed and engaged and suggests that it provides "a model for future communications in a long running crisis".

In addition television has proved to have been a highly effective form of communications. Not only does it provide a rapid and immediate transmission of information, it also enables spokespeople to make use of visual aids and other props, all of which can help strengthen the message and understanding (WHO, 2005a).

The reach and impact of radio as a means of communication should also not be forgotten. Nearly every household has a radio, allowing communicators to reach individuals and groups that might not be accessible via other means (WHO, 2005b). Like television, radio also provides a means of delivering instant messages. Both television and radio are seen to be a trusted and unbiased form of communication (Cabinet Office, 2012).

## 6.2 Social Media (Social Networks, Blogoshpere, Wikis, Video-Sharing Applications)

Social media sites are very popular. CDC (2012) quote the Pew Internet & American Life Project report (2011) "Social Networking Sites and Our Lives", stating that nearly half of adults (47%) used at least one social networking site in 2010. It is thought that that number is continuing to grow rapidly. Despite the popularity of these sites, it is reported that only 5 member states used social media during the H1N1sw pandemic. Whilst CDC has been praised for its use of various social media platforms others have been criticized for failing to follow this lead (European Commission DG SANCO, 2011)

The European Commission's report on the Importance of Social Media during a Crisis (EC, 2011) emphatically outlines the many potential benefits of its' use during a Crisis. In addition to providing the communicators with information that will help shape their messaging, Social Media also enables decision makers and communicators to identify trends, spot early-warnings and communicate with far reaching

audiences in addition to target groups. In their report, the EC clearly set out the need for Member States to embrace Social Media as part of their crisis response stating that "It is no longer possible to simply communicate offline via information sheets, press conferences and press releases. Instead Member States (and the Commission) need to establish a voice now to ensure that if a similar crisis occurs they are ready to release their information through the already established online communication channels" (EC, 2011, p.9).

Social Media also makes it possible to review the success of communications by monitoring the number of people who have clicked on the links or re-tweeted messages etc. (EC, 2011)

Not only this, Social Media presents the opportunity to leverage large networks and diverse audiences in order to spread messages (CDC, 2012). Viral Networking, often using social media, where appealing content is read by internet users and passed on to piers, friends, families and colleagues creating a 'buzz' to the point where ideas or content 'spreads like a virus' ("Viral Marketing", 2012), is a powerful means of reaching a large and captive audience (EC, 2011).

CDC has been praised for the extent to which they embraced Social Media during the 2009 H1N1sw pandemic. They established Twitter and Facebook accounts, links to videos on YouTube, hand washing e-cards etc. (EC, 2011) and it is suggested that they should be held up as an example for other organisations to follow. Hine (2010) also recommends that the potential of social networking and digital media should be used to engage with a wider scientific community and the media.

It is reported "At the height of the pandemic, May 1st 2009, @CDCemergency had more than 65,000 followers. As of May 1st 2010, they had 1,224,635 followers. People were listening to the information received and CDC was seen as an expert voice in the online world for H1N1sw (EC, 2010, p.9).

The other benefit of Social Media, unlike many other forms of mass communication, is that it allows for a two-way conversation in which the audience can react and ask questions, in effect giving the public a voice. This provides communicators with greater insight and understanding of the audiences they are targeting (WHO, 2005a).

## 6.3 Telephone Hotlines

Telephone hotlines have also proved effective for the communication of authoritative messages. The provincial SARS telephone line in Toronto registered about 10,000 calls per day during the 2003 outbreak (WHO, 2004). The UK Government implemented the 'National Pandemic Flu Service' at national and regional levels during the 2009 outbreak, a telephone line which provided fast diagnosis to worried members of the public and advice on what further action to take as well as a website providing information and links to helpful resources. It is reported (Hine, 2010) that this effectively reduced the pressure on primary care services. Depending on the nature of the emergency it may be appropriate to set up multiple hotlines for various different stakeholders (e.g. Media, public, policy makers) and where possible, feedback from the hotlines should be passed on to those delivering communications (WHO, 2005a).

## 6.4 Spokespeople

How a message is communicated, will naturally influence its impact. During an emergency, spokespeople can become the public face of an organisation's response. Aside from the message content, verbal and

non-verbal communication skills and the personality of an individual (how trustworthy and likeable) are all important considerations (WHO, 2005a).

Effective spokespeople have proved to be a powerful method of communications during various crisis situations (WHO, 2004). Mayor Rudy Giuliani in the aftermath of the World Trade Centre terrorist attacks in New York is an example of the enormous impact a spokesperson with the right attributes can have on people (Sirota, 2001). The performance of spokespeople can affect people's degree of trust in the authorities and the subsequent impact of the message (Vaughan, Tinker, 2008).
Gaining access to spokespeople is also important. It was widely reported that during the H1N1sw crisis in 2009 journalists had great difficulty accessing officials and experts in the various Member States (EC, 2011). As a contrast the daily media briefings that were held in Ontario during the SARS crisis were well received by journalist and other stakeholders and thought to have contributed to what is deemed a successful communications campaign. (WHO, 2004)

It is important, therefore, to appoint a lead spokesperson appropriate to the scale of the disaster. This person clearly needs to be trained and experienced in dealing with the media and to also have a good grasp of the key issues (WHO, 2005a). Additionally the setting up of a press room so that the media can receive up-to-date information from officials will help avoid speculation and possible conflicting reports borne out of frustration and a lack of information.

# 7. Component 4 - Timing of Dissemination

## 7.1 Speed of Response

Early Detection, surveillance and decision-making are all crucial in managing an outbreak situation. Many factors including international travel and varying immunity have all had a major impact on the speed and reach of infectious disease. As a consequence there is an ever-increasing need for evidence based surveillance and early detection and decision-making methods (Scarpino, Dimitrov & Meyers, 2012).

Similarly, the online world has accelerated the speed at which news can travel which also has implications for communicators. Whilst social networks may be reporting an infectious outbreak in real time, an official announcement might come sometime later. It is reported that (Collier, Bguyen & Nguyen, 2011, p. 1), "the average delay in receiving and disseminating data from traditional sentinel physician networks is about two weeks." However, it is also suggested that it may be possible for social networks, or "micro-blogs", to be used to help with early identification and onward tracking and monitoring of an outbreak and in so doing go some way to solving the problem that they create.

Social Media also provides health communicators with the opportunity to communicate instantly with key stakeholders rather than having to wait for journalists to report (EC, 2010).

## 7.2 Announcing the Pandemic

Many previous high profile crises, including The Dioxins Crisis in Belgium (WHO, 2004) where the Government failed to communicate adequately leaving the mass media to speculate and uncover problems, serve to highlight the importance of notifying stakeholders as early as possible. The immediate reaction of most governments however is to hide information about an outbreak from the public for fear of triggering panic and an overreaction (Menon, 2008). An issue here though is that if news breaks and it

emerges that the authorities have been purposefully withholding information then trust is destroyed and the response is undermined.

As cited by WHO, in their Outbreak Communication Guidance, it is likely that an outbreak situation may be reported on the web before officials make a formal announcement. Keeping an outbreak hidden from the public is almost impossible. It is therefore recommended that early reporting will help to prevent rumour and misinformation (WHO, 2005a). WHO go on to advise that on deciding when to inform the public of a pandemic situation, "An announcement must be made when public behaviour might reduce risk or contribute to the containment of the outbreak" and that "the benefits of early warning outweigh the risks."

### 7.3 Communication Continuum

It is important that there is communication throughout all phases of the emergency (JHSPH, 2011). However, it is typical for what Gesser-Edelsburg and Zemach (2012) refer to as a 'communications vacuum' to appear following a crisis as commentators return to business as usual and media attention turns to fresh stories. It is also suggested that this needs to be avoided and replaced with a 'communications continuum' in order to ensure the public's fears are addressed, questions answered and ultimately steps taken to prepare for the next disaster. In the same vein it is important to consider the level and content of communications between pandemics as well as the level and content during the pandemic stages (WHO, 2004).

As in good crisis management practice "Communicating key decisions in a timely fashion is as important as making the decisions in the first place." (BSi, 2010). This sentiment is particularly pertinent due to the increasingly rapid transmission of infectious disease. Communications at all levels of the response to a pandemic is important as unless the public know what is happening, what they should do and why it is likely that there will be confusion and a breakdown of trust (WHO, 2004).

### 7.4 Information Fatigue

Public complacency and fatigue generated by repeated and unfulfilled scares and scientific uncertainty also create problems for health communicators (Menon, 2008). This is particularly true in countries such as South East Asia that have been high on the flu radar for some years and which have other 'real' crises to deal with, such as financial crises, floods, earthquakes or other natural disasters. How to retain interest in the issue and maintain readiness is however an issue for all particularly since the 2009 pandemic fell short of the scenarios that had been predicted (Hine, 2010).

## 8. Component 5 – Public Acceptance

### 8.1 Trust in the Authorities

It is widely and overwhelmingly acknowledged that trust is one of the most significant factors related to successful Crisis Communications (De Zwart, 2008). In relation to outbreak situations there needs to be trust, not just between officials and the public but also between communicators and technical teams (EC, 2010). WHO (2005a, p. 2) state that "Abundant research and prominent public health examples support the hypothesis that the less people trust those who are supposed to protect them, the more afraid the public will be and less likely they will be to conform their choices and behaviour with outbreak management instructions." So, Public acceptance of recommended measures is heavily influenced by Trust, which in turn affects the public's judgment of risks and benefits. This concept is supported by Weerd et al. (2011) who

state, “A high level of public perception and trust is related to compliance with recommended measures”. Figure 2 outlines factors that increase public trust in crisis communications and Figure 3 outlines the factors that decrease public trust.

## 8.2 Trust in Relation to Risk Management

Van der Weerd et al (2011), who examined trust, risk perception and the intention of the general public to adopt protective measures during the H1N1sw Pandemic in the Netherlands identified trust as an important factor in risk management. This is because trust can affect the public's judgments of risks and benefits, and can therefore influence the acceptance of recommended measures and success or failure of communication campaigns. (Vaughan & Tinker, 2008).

Studies examining people’s willingness to comply with public health recommendations have also been carried out in countries with experience of dealing with SARS and Avian Flu outbreaks. Findings here would also suggest the most pertinent factor affecting compliance is people’s understanding and assessment of the perceived risk of contracting the infection and its severity (Hilton & Smith, 2010).

According to the results of 16 cross section telephone surveys undertaken in the Netherlands between August and November 2009, “Risk and crisis communication by the government should focus on building and maintaining trust by providing information about preventing infection in close collaboration with municipal health services, health care providers, and the media.” (Van Der Weerd et al., 2011).

## 8.3 Trust in the Government

Harris and O’Shaughnessy (p.36) (citing Andrews, 1996) suggest that the BSE crisis epitomized “a malaise in British (or English) society and its political Organisation”. They point out that the existing public mood and general view of politicians in areas unrelated to a crisis will impact public opinion during a crisis in turn impacting feelings of trust in the government, political figures and the so-called authorities. For example the MP expenses scandal in the UK, followed by the Leveson enquiry into media standards have both led to increasing mistrust of political figures. Existing perceptions of sleaze and incompetence connected to previous events can therefore undermine authority. It is in many cases also the mass media who influence public perception of the performance of officials picking up on inconsistencies or contradictions (Vaughan& Tinker, 2008).

In Gesser-Edelsburg and Zemach’s (2012, p.1) analysis of the Israeli Carmel Disaster, the importance of the media in helping Netanyahu strengthen his public image and the way in which the public perceived he had handled the crisis is noted; “The media also helped build Netanyahu’s credibility and cooperated with him by providing him with the televised stage.” It is suggested that this combined with an absence of any real pressure on behalf of the press to conduct an inquiry, all helped Netanyahu to build a positive and favourable public image despite many shortcomings in the response. It is also suggested that this lack of pressure from the Media and success in securing a positive public image resulted in inaction and complacency following the disaster with regard to reducing future risk.

## 8.4 Perception of Risk

Perception can be powerful in a Crisis and have direct impacts on people’s behaviour (Van der Weerd et al., 2011). Findings from a national telephone survey conducted in the UK following the H1N1sw outbreak conclude that the perceived risk of oneself being affected and levels of worry is a key factor in the extent to which members of the public adopt recommended behaviours (Rubin, Potts & Michie, 2010). These

findings are supported by 'The Health Belief Model', and 'The Protection Motivation Theory' (PMT) (De Zwart, 2009). Central to both of these theories is the concept that public adoption of protective measures is strongly influenced by a high level of risk perception i.e. perceived susceptibility that he or she will contract the disease and how severe the impact of contracting the disease would be on his or herself. In addition to vulnerability and susceptibility, belief in the efficacy of available protective actions, and the perception an individual has in their ability to carry out the proposed protective actions are also identified as important factors affecting behaviour change (De Zwart, 2008).

Whilst studies suggest that during the 2009 H1N1sw outbreak members of the public thought contracting swine flu was inevitable, there is little evidence to suggest that individuals perceived contracting the virus to be life threatening for healthy people (Hilton & Smith, 2010). This may explain why uptake of protective behaviours and levels of worry were low, even when the number of cases was rising.

Another reason for low acceptance of protective behaviours is that whilst the accelerated development of a vaccine during the H1N1sw outbreak may have met medical standards, the public perception was that it had not undergone the rigorous testing other vaccines go through and may therefore have posed a potential risk. This may have affected uptake of the vaccine and even created distrust amongst the population suspicious of the motives of profiteering Pharmaceutical companies and the Government, and possibly even contributed to the feeling that the situation was being 'over-hyped' for commercial reasons (Henrich & Homes, 2009).

Another element that also affects people's decision making is what Vaughan and Tinker (2008) describe as the 'risk-benefit' framing of the problem whereby risks are weighed up against the costs of taking protective actions. These costs might include disruption to personal circumstances and in particular economic livelihood, expenses associated with treatment as well as social consequences. Risks are considered within the context of people's lives, which is why in some circumstances they may be considered acceptable.

## 8.5 Understanding the Needs and Interests of The Public

It is vital for health communicators to understand the needs and interests of the public (WHO, 2005a). This was something that the UK Government failed to achieve during the BSE crisis (WHO, 2004) resulting in increasing mistrust and suspicion.

It is important for communicators to listen to their audience with respect whilst also understanding the needs of the media (JHSPH, 2011). This includes being respectful of people's fears and concerns. It is vital to acknowledge the public view and any widely held beliefs or concerns, however mistaken or unfounded they might seem , (WHO, 2005a, p.6). "When a publicly held view is mistaken, it should still be acknowledged publicly and corrected, not ignored, patronized or ridiculed." Where misinformation isn't addressed, it can lead to public confusion, chaos, loss of government credibility and have serious consequences. In this way, the needs and concerns of the public should shape the content and focus of communications. For instance the audience may desire simple instructions or they may be looking for a range of information on which to make independent decisions (Granger et al, 2002).

Managing and understanding the psychological and behavioural reactions of the public is key to managing the response. As cited by WHO (2005a, p.6), "It is usually difficult to change pre-existing beliefs unless those beliefs are explicitly addressed. And it is nearly impossible to design successful messages that bridge

the gap between the expert and the public without knowing what the public thinks." History has proved that failing to do this can prove costly. By monitoring and engaging in what's being discussed online Social Media can help organizations to get a better feel for the public interest and what the current hot topics are, which in turn should inform the overall communications strategy (EC, 2010).

It is also important that Communicators understand the needs and challenges of specific groups such as; those with limited access to technology, non-English speakers, difficult to access urban populations, the illiterate, the homeless and undocumented immigrants (Vaughan & Tinker, 2008). Not only is it important that communications reach vulnerable populations (including those who might not typically be described as vulnerable), they also need to be relevant to the cultural needs and priorities of those populations, which can have a significant impact on individual responses to an outbreak situation.

Risk reduction strategies and advice also need to be realistic and appropriate if they are going to be accepted and adopted. For example recommendations to work at home for a prolonged period of a month have only been found viable for a minority of employed people (Vaughan & Tinker, 2008).

## Factors That Increase Public Trust in Crisis Communications

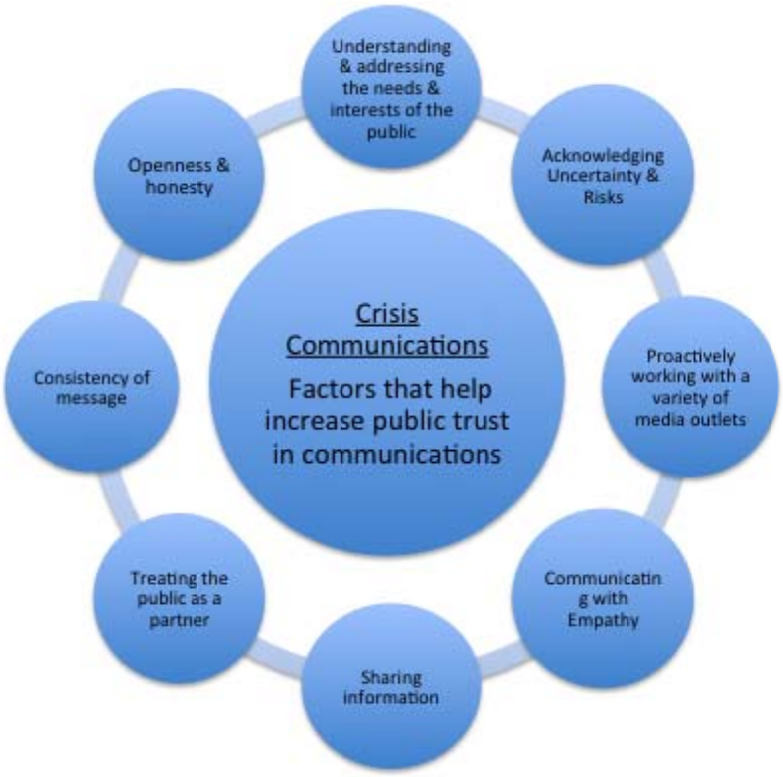


Figure 2 – Factors that increase public trust

## Factors That Decrease Public Trust in Crisis Communications

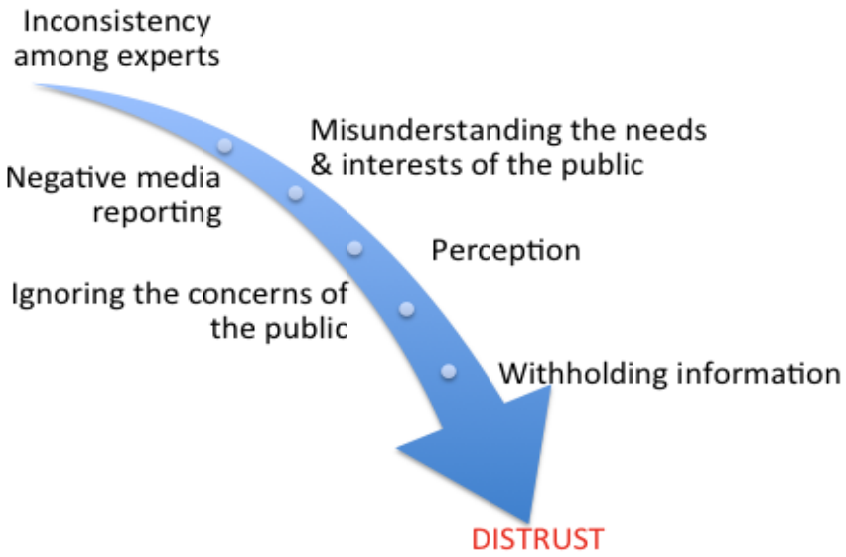


Figure 3 – Factors that decrease public trust

## 8.6 Case Study of the UK Government's Handling of the BSE Crisis

In Harris and O'Shaughnessy (1997) analysis of the UK Government's much criticized handling of communications during the BSE Crisis, it is suggested that a key element of the failure was that the Government believed and tried to sell the crisis to the public as a technical problem with a technical solution. In doing this, they misjudged public feeling and interpretation of the situation, which only served to intensify feelings of mistrust and suspicion.

During this crisis, the overriding concern amongst the public was that the disease could pass from cattle to humans unless successfully proved otherwise. This widely held theory was repeatedly denied by various government officials, an approach that failed to win over public opinion and only resulted in casting the authorities in an increasingly suspicious light and eroding the public's trust.

It is also suggested that the UK Government's approach to communications during the BSE Crisis was further undermined by 'scientific tentativeness' and an inability to communicate in a language that the public understood (Harris & O'Shaughnessy, 1997). It is argued that during a crisis the public desire clarity and brevity and that their understanding of 'proof' may be totally at odd's with the scientific interpretation of a situation.

Public behaviour and cooperation are key to controlling an outbreak of infectious disease. However, as surprising as it might seem, merely telling people that their behaviour is putting them at risk is not enough to make them change their habits (De Zwart, 2008).

## 8.7 Acknowledging Uncertainty and Being Open and Honest

As with the characteristic of many crises and despite huge medical and scientific developments, it is acknowledged that in the context of a pandemic or outbreak situation, it is impossible to predict what will happen (Sager & Sharma, 2009) and when. Whilst health communicators may feel that acknowledging this uncertainty would increase public insecurity, there is in fact evidence to suggest it is better to be open and honest about any limitations (WHO, 2005a). Covering up risks or a lack of information can reduce public confidence in decision makers and increase anxiety (WHO, 2004).

The importance of openness and honesty is further underlined by Sager and Sharma (2009) who argue that "an obsession with panic can often cause officials and managers to withhold vital information in the belief that it will just scare people. This is exactly the opposite of what should be done." (Sager & Sharma, 2009). It is widely reported that panic is in fact rare and that most people respond cooperatively and rationally to natural and man-made disasters. So panic should never be used as a reason to withhold information or provide false reassurances (WHO, 2005b). It follows therefore that it is important not to understate the risks or dismiss people's fears and for officials to provide clear instructions as to the measures that should be followed. Political and economic concerns might however be at odds with transparency. This happened in China following the SARS outbreak when the situation was reportedly covered up during the initial stages directly hindering the response and having huge implications for the rest of the globe (CIA, 2003).

## 8.8 Media Reporting

The media can have a significant impact on public perception. Not only do they reflect public views on certain issues, but they also tell society what to think about it. In this way, the media can impact both how the public perceive a situation as well as their perceived view of how well the authorities are responding to a situation, regardless of what the facts may be

Claims by Germany in 2011, that toxic Spanish cucumbers were responsible for a deadly outbreak of E.coli. resulting in 14 deaths had a dramatic effect on Spain's export of these two products and badly damaged the reputation of Spanish agriculture. This is despite the claims never being substantiated (Rainsford, 2011).

It is difficult to quantify to what extent the media influence attitudes and behaviour, but it is generally accepted that it will depend on the social context in which messages are received (Powell, Chapman and Blaine, 2004) the extent to which the issue resonates with the public, as well as the availability of alternative sources of information. It is also argued that the public form beliefs rapidly, and that once formed they rationalise away information that conflicts with that belief. The rate at which these beliefs are thought to be formed would suggest that the speed of response by official information sources is in turn vital for ensuring that the desired message is being widely disseminated quickly, so as to contend with any inaccurate or unhelpful media reporting.

Despite public scepticism, in a crisis the media do however act as an important source of public health information, and it is reported that the volume and focus of media reporting can more specifically influence the perceived efficacy and subsequent uptake of recommended behaviours (Rbin, Potts & Michie, 2010). This clearly has significant implications for the management and containment of outbreak situations.

Some reports (Powell, Chapman and Blaine, 2004) do however suggest that in a crisis situation there is greater cooperation between industry, government agencies, the media and the public and that access to trained spokespeople can improve the accuracy of media messages.

# 9. Current Pandemic Plans

## 9. 1 Why plan?

There are many reasons why Governments and organisations put in place plans for a potential pandemic. Effective planning may help to reduce the impact of a pandemic and subsequently decrease hospitalisation and deaths. Pre-planning that considers how resources are going to be deployed with reduced staffing levels should also enable organisations to maintain critical services. This in turn may help to reduce the massive economic and social impact that a pandemic might have across the globe (WHO, 2005b). Lack of preparation and planning is likely to result in a poorly coordinated and ineffective response that fails to meet the challenges posed by an outbreak situation. It is generally accepted that the benefits of preparation far outweighs the cost (Hine, 2010).

So, aside from the obvious social and moral responsibility to plan, putting in place arrangements to deal with such a potentially disruptive event is basic common sense. Good preparedness dictates however that we should be continually striving to improve the arrangements that we have in place and identify opportunities for development (Hine, 2010). Lessons must be learned from previous events to improve crisis planning for the future?

## 9.2 Risk & Crisis Communication Planning

Somewhat surprisingly very few organisations have prepared detailed crisis and risk communication plans in the same way that they have prepared other contingency plans. Given the importance of communications in an outbreak situation, crisis communications plans should be thought through and developed in relation to all elements of outbreak response, rather than as an add on or after thought

(WHO, 2005a). It should also be seen as a separate task to the actual management and decision making of the crisis (WHO, 2004).

In addition to developing plans for communication among agencies, health communicators also need to develop a plan for communicating with the public during a health emergency (JHSP, 2011).

In their review of the BSE crisis it is also concluded (Harris & O'Shaughnessy, 1997, p.37), that the UK Government did not have a "strategic planned approach to public relations management in either the food industry or elsewhere. This meant that there was no plan for communication of the facts on BSE and little evidence of sustained media management, instead there was a reactive response by government which was often contradictory."

Appropriate spokespeople need to be identified and trained prior to a crisis with consideration given to positions and personalities who will be most acceptable and effective at getting messages across to the public (WHO, 2010). With health professionals at local and regional levels remaining well regarded sources of information, plans should also strive to ensure that keeping professionals at this level informed is a key priority.

Arrangements also need to ensure a fast flow of information between different levels of the response alongside a sufficiently rapid public response as soon as a situation develops (WHO, 2010). This is particularly important given the speed of other reporting networks, such as the media and Social Media, which will be quick to pick up on any localised outbreaks.

It is suggested that Surveillance Networks could improve the speed and quality of data that they generate by incorporating newer approaches such as 'immunological assays' and school/work place absenteeism rapid molecular diagnostic assays, ad hoc syndromic surveillance systems , school and work place absenteeism registers, hospital admission data, sentinel surveillances, which may then enable an increasingly rapid response. It is also suggested that surveillance networks could also be used as vehicles for providing public health messages and advice to practitioners, Organisations (schools) and the general public (Cheng et al., 2009).

## 9.3 Social Media

Traditional communications have been fairly hierarchical in nature. Social media changes this, opening up a two way conversation between officials and the public ,**"**It is no longer possible to simply communicate offline via information sheets, press conferences and press releases" (EC, 2010, p9). In this report, the European Commission, make clear recommendations that more organisation's need to follow the lead of CDC during the 2009 pandemic by firmly embracing Social Media as part of their crisis communications strategy.

As part of this process, and in order for organisations to establish themselves as a credible and trusted source with an engaged and captive audience, they need to develop their profiles and social media statuses before a pandemic or outbreak situation occurs (EC, 2010).

## 9.4 Preparedness, Flexibility and Scale

Based on the lessons of the 2009 outbreak when there was considerable uncertainty over the impact of the disease and nature of the outbreak, Hine (2010) emphasises the importance of building greater flexibility

into planning arrangements. Hine acknowledges that even with improvements in evidence gathering and scientific advice, and as with many crisis situations, decisions will still have to be made without knowing the full facts of the situation, a key feature of crisis management. Not only this, certainly in the UK, the 2009 pandemic response was found to have been insufficiently flexible with arrangements very much focused on a worst-case scenario that were difficult to scale back to fit the less severe situation that was unfolding.

Hine (2010) suggests that there are two options available when responding to future pandemics: 1) responding based on the high end of the planning assumptions set out in the National Framework and then scaling back as more information is established or 2) making calculated judgements based on the information and evidence available and resource the response accordingly. Whilst this would help to ensure a more proportionate response, underestimating the severity of the situation could leave the Health Service unable to cope.

The WHO (2010) also recommend that a generic plan framework, containing checklists appropriate not only for a worst-case scenario, is developed that can be applied flexibly to the situation as required, rather than developing extensively detailed documentation. It is suggested that this will help responders to adapt to a changing situation as required. The principle of developing a generic plan that can be applied flexibly has long been recognised as a key tenant of good crisis management.

Exercise simulations to achieve familiarity and facilitate plan development also need to be incorporate with planning activities (WHO, 2010).

There are a wide range of factors that could lead to decreasing levels of public trust in officials during an outbreak situation. Not least the uncertain and changing nature of the situation that may portray those in charge as incompetent. Preparedness plans should therefore also anticipate and prepare for the need to rebuild public trust, particularly with vulnerable populations (Vaughan, Tinker, 2008).

Another aspect to consider is highlighted in Dame Diedre Hine's (Hine, 2010) review of the UK's response to the 2009 Influenza pandemic, where it is reported that planning assumptions and worst-case scenario figures, which were publicly released to facilitate emergency planning activities, were wrongly taken to be predictions rather than planning figures. She goes on to recommend therefore that work should be carried out to review how planning scenarios are released and used in public in the future to help ensure that a balanced and realistic 'reasonable worst-case' scenarios can be developed. This may help to avoid any future perceptions of over-reaction or hyping-up.

Pandemic preparedness needs of course to be supported by appropriate funding to ensure activities can be sustained (WHO, 2010).

## 9.5 Models of Risk and Crisis Communication

As described in this report, crisis and risk communication needs to consider many different technical, psychological, sociological and cultural perspectives in order to understand, anticipate and respond to the needs of the public in relation to various risks. There are many complex interrelated, as well as unrelated, and sometimes conflicting issues that need to be considered by those responsible for health communications. As to be expected, the development of conceptual frameworks and tools to assist with this process continues to be considered important.

The Centers for Disease Control and Prevention (CDC) have developed an integrated model, or tool, to provide health professionals with a framework for emergency communications. The tool is referred to as Crisis and Emergency Risk Communication [CERC] and was developed in response to the ever-increasing expectations and challenges that fall upon public health professionals for communications in a crisis situation (Veil, Reynolds, Sellnow, & Seeger, 2008). Whilst it is recognized by CDC that more work is needed to develop CERC, the model provides a systematic and structured approach to crisis and risk communication reflecting the closely interrelated nature of these two disciplines, and thousands of individuals have already been trained in CERC via a variety of methods. Not only does the model bring together a wide range of methodologies and approaches, it also recognizes the participatory nature of crisis and importance of giving people something to do in order to encourage self-efficacy and reduce feelings of anxiety and powerlessness. Importantly, it also sets out communication activities, strategies and outcomes that can be applied at a practical level by the health professional dealing with crisis communications. Another example of a model or models that strive to link both the technical assessment of risk with wider psychological, sociological and cultural perspectives of risk and risk perception in order to gain a better understanding of public response to risk is presented by Kasperson, et al (1988) who aims to provide a structural description of the 'the social amplification of risk'.

However helpful these or other similar models, it is nonetheless argued (Backer, Rogers & Dopory, 1992) that no one model will totally fulfil the needs of all public communication campaigns and can only be used as a guiding tool combined with, and validated by, practical experience.

## 9.6 Identifying Stakeholders

Plans need to be made from the perspective of those they target and sensitive to the needs and challenges of the audience. Misconceptions and unrealistic assumptions are barriers to successful implementation of strategies, which no matter how good they are need also to consider the life circumstances and communication needs that influence decision making and behaviour (Vaughan &Tinker, 2008). In order to achieve this, stakeholders need also to be represented during the planning process (WHO, 2010).

It is argued that during the BSE crisis, the government did not understand the different stakeholders that needed to be communicated with. To address this Harris and O'Shaughnessy (1997, p.37) emphasise the need to build on the principles of Grunig and Repper (1992):

- "Identifying, analyzing and mapping strategically important stakeholder relationships.
- Identifying those stakeholder groups who are affected by, or whose actions may affect, the organization, and who are affected by the issue.
- Anticipating the likely emergence of issues that may arise out of the organization's relationship with its various stakeholders."

## 9.7 EU Coordination & Leadership

A major outbreak situation, such as an influenza pandemic, requires significant and prolonged central government coordination. Beyond this, it also requires multi-sectoral and international coordination (Hine, 2010). Strong leadership is required not only during a pandemic response but also during the pandemic planning stage. Multi-sectoral engagement and co-ordination is also required (WHO, 2010) with international planning and interoperability between countries and regions to achieve consistency and coordination. It has also been identified by EMA that communication activities need to be better coordinated among the main EU stakeholders" (EMA, 2011). This coordination should include the development of key messages to help achieve consistency of messages (WHO, 2010).

## CONCLUSIONS AND RECOMMENDATIONS

The World Health Organization (WHO) believes it is now time to acknowledge that communication expertise has become as essential to outbreak control as epidemiological training and laboratory analysis. The aim of good outbreak or crisis communications must be to successfully instruct, inform and motivate the public to adopt appropriate self-protective behaviour whilst also building trust and confidence in officials, dispelling myths and rumour and ultimately acting in partnership with the authorities overall strategy.

Pandemic outbreak communications involves three distinct areas; the source i.e. those who compose messages, the media and the means by which the messages are communicated and the audiences or public who receive them. Many issues or factors impact all three areas including some which may appear intangible at first but which are nevertheless of crucial importance such as trust which is built on honesty, clarity, consistency and transparency and which meets the needs of the public. Type, tone and terminology used for the messages and the timing and means by which they are communicated also play their part as do new technologies such as Social Media.

Public acceptance and behavioural response will differ depending on the audience, their culture, faith, their trust in the authors of advice, their knowledge and understanding of a pandemic and its real or perceived risks. The influencing factors are many and at times counter balancing (Figure 4). It is apparent that the Health Communicator's strategy will benefit from not only taking into account these many and varied influencing factors but also use all the communication channels and medium available in order to meet the varying needs of the public.

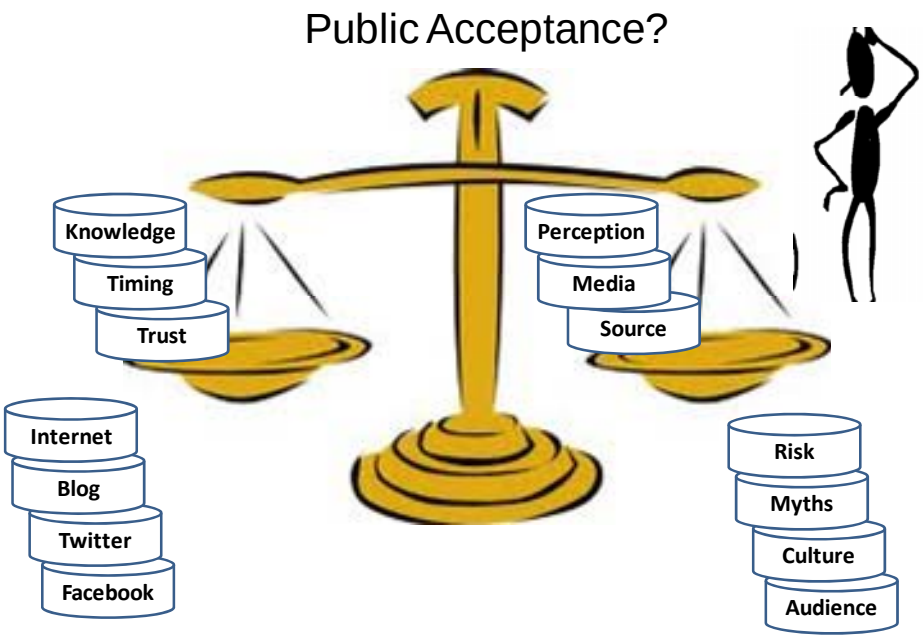


Figure 4 – Some of the many factors that will influence public acceptance

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