

Workshop on Risk Communication in a communicable disease outbreak Participants Guide

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Background

Emerging and reemerging infectious diseases and the threat of deliberate release of pathogens represents the new challenge for the public health authorities in the 21st century. Advances in health care and access to care changed the perceptions of risks as well as expectations of general public from health authorities. Media attention to any event related to a public health threat gives room to a broad range of interpretation of these events.

Risk communication is defined as, “an interactive process of exchange of information and opinion among individuals, groups, and institutions. It involves multiple messages about the nature of risk and other messages, not strictly about risk, that express concerns, opinions, or reactions to risk messages or to legal and institutional arrangements for risk management”¹.

Its importance in crisis related to deliberate releases of pathogens and bioterrorism response was highlighted after the 9/11, 2001 events by the Assistant Surgeon General, Edward Baker, MD, MPH (December, 2001):

“...the major public health challenges since 9/11 were not just clinical, epidemiological, technical issues. The major challenges were communication. In fact, as we move into the 21st century, communication may well become the central science of public health practice.”

This statement applies as well to communicable diseases outbreaks or to newly emerging diseases.

¹Covello VT, Peters RG, Wojtecki JG, Hyde RC, Risk Communication, the West Nile Virus Epidemic, and Bio-terrorism: Responding to the Communication Challenges Posed by the Intentional or Unintentional Release of a Pathogen in an Urban Setting *Journal of Urban Health. Bulletin of the New York Academy of Medicine*, 2001: 78(2)(June): pages 382-391

Risk communication is based on different theoretical models that describe how risk information is processed, risk perceptions are formed, and how risk decisions are made^{1,2}.

One of the most known is the **Risk Perception Model**, which implies that the individual's perception of risk is based on a combination of hazard (e.g. mortality and morbidity statistics) and outrage:

$$\text{Risk} = \text{Hazard} + \text{Outrage}$$

There are 15 risk perception factors that can change peoples' attitude and behavior, also defined as "outrage" (Annex 2). The perception factors that would most likely be exacerbated in case of a newly emerging disease are: uncontrollability, unfamiliarity, lack of understanding, uncertainty, dread and distrust in institutions.

Both aspects should be taken into consideration when the risk communication is prepared. They should be addressed by developing appropriate communication objectives and messages, using the suitable messenger and means of communication to transmit the message.

WHO Guidelines for Risk communication

WHO's 2004 Outbreak Communication Guidelines identify five best practices for outbreak communication: building trust, early announcements, transparency, understanding the public and planning³.

² Covello VT, Sandman PM. Risk communication: Evolution and revolution. In: Wolbarst A, ed. *Solutions to an Environment in Peril*. Baltimore, MD: John Hopkins University Press; 2001, 164-178, available at: <http://www.psandman.com/articles/covello.htm>

³ WHO, Outbreak Communication Guidelines, WHO/CDS/2005.28
http://www.who.int/csr/resources/publications/WHO_CDS_2005_28/en/

Objective: At the end of this session, participants should be able to select a message, a messenger and means of communication according to the risk and target audience assigned.

Activities

- **Plenary session: Risk communication in an outbreak (45 min)**
 - General presentation - 20 min
 - Presentation of the first case of Crimean Congo hemorrhagic fever in Greece – 10 min

- **Work group (1h&1/2)**
 - Group 1: target audience: general public
 - Group 2: target audience: politicians
 - Group 3: target audience: health professionals
 - Group 4: target audience: risk groups

- **Wrap-up session (1h)**
 - **Presentations by participants** on the key issues discussed and conclusion of the group – **20 min**
 - **5 minute presentation (no more than 5 slides)**
 - **powerpoint support**
 - **presenter elected by the group**
 - **Presentation: Risk communication during the investigation of the Crimean Congo case in Greece - 10 min**
 - **Discussion and final remarks**

Key issues to be discussed:

- a. Objective of communication
- b. Main issues related to the risk communication
 - message
 - messenger
 - means of communication
- c. Optional: how WHO recommendations are applied in this situation:
 - building trust
 - early announcements
 - transparency
 - understanding the public
 - planning

Question 1. What are the objectives of the risk communication in case of a newly emerging disease?

Question 2. What is the main information you would like to include in the message? How would you formulate it?

Question 3. Whom would you choose to deliver the message to the target audience assigned? Why?

Question 4: What means of communication would you choose for the target audience assigned? Why?

Optional:

Question 5. How the WHO guidelines are to be applied in this situation?

Other References

- Association of State and Territorial Health Officials. (2004) "Communication in risk situations: Responding to the communication challenges posed by bioterrorism and emerging infectious diseases." Available at: http://www.astho.org/pubs/ASTHO_Risk_Communication_e-Workbook.htm

- Tarragó, Oscar, Division of Health Education and Promotion, Agency for Toxic Substances and Disease Registry: "Health Risk Communication - Objectives and Messages". Available at: <http://icma.org/upload/library/2004-02/%7BE3073DB4-0916-AA05-731078D27F1CB6C0%7D.pdf>

- Sandman, PM. (2003) "Dilemmas in Emergency Communication Policy." Available at: <http://www.psandman.com/articles/dilemmas.pdf>.

- World Health Organization, Outbreak Communication Planning Guide, 2008, Available at: <http://www.who.int/ihr/elibrary/WHOOutbreakCommsPlanngGuide.pdf>

Annex 1: Crimean-Congo hemorrhagic fever (CCHF) fact sheet

<p>Agent Crimean-Congo hemorrhagic virus: Group: RNA, Family: <i>Bunyaviridae</i>, Genus: <i>Nairovirus</i></p>
<p>Symptoms & signs Initial signs and symptoms are sudden and include headache, fever, back pain, joint pain, stomach pain, and vomiting. Red eyes, a flushed face, a red throat, and jaundice are common. In severe cases, hemorrhagic manifestations and sensory perception begin in about the 4th day - 2 weeks.</p>
<p>Incubation period 1–3 days, with a range of 1–12 days</p> <p>Period of communicability Highly infectious in the hospital setting. Nosocomial infections are common after exposure to blood and secretions.</p>
<p>Diagnostic criteria Used laboratory tests include antigen-capture enzyme-linked immunosorbent assay (ELISA), real time polymerase chain reaction (RT-PCR), virus isolation attempts, and detection of antibody by ELISA (IgG and IgM).</p>
<p>Treatment and/or prophylaxis Treatment for CCHF is primarily supportive. Care should include careful attention to fluid balance and correction of electrolyte abnormalities, oxygenation and hemodynamic support, and appropriate treatment of secondary infections. Ribavirin has been used in treatment of established CCHF infection with apparent benefit. Both oral and intravenous formulations seem to be effective.</p>
<p>Transmission By bite of infective adult ticks: <i>Hyalomma marginatum</i> or <i>H. Anatolicum</i>. Immature ticks are believed to acquire infection from the animal hosts and by transovarian transmission. Transmission to humans occurs through contact with infected animal blood or ticks. CCHF can be transmitted from one infected human to another by direct contact with infectious blood or body fluids.</p>
<p>Susceptibility Immunity after infection probably lasts for life.</p> <p>High risk groups Animal herders, livestock workers, and slaughter houses in endemic areas are at risk of CCHF. Healthcare workers in endemic areas that have unprotected contact with infectious blood and body fluids. Individuals and international travellers with contact to livestock in endemic regions may also be exposed.</p>
<p>Control Measures Agricultural workers and persons in endemic areas should use insect repellent (containing DEET) on exposed skin and clothing. Individuals should avoid contact with the blood and body fluids of livestock or humans who show symptoms of infection. Healthcare workers should use proper infection control precautions to prevent occupational exposure. Patients with suspected or confirmed CCHF should be isolated and monitored.</p>

- Sources:**
- World Health Organization (WHO). Crimean Congo hemorrhagic fever. Fact sheet N°208. Revised November 2001. Available at: <http://www.who.int/mediacentre/factsheets/fs208/en/>
 - Centers for Disease Control and Prevention (CDC). Crimean Congo hemorrhagic fever. Available at: <http://www.cdc.gov/ncidod/dvrd/Spb/mnpages/dispages/cCHF.htm>
 - Heyman, DL. Control of Communicable Diseases Manual. American public health association. 18th ed. 2004

Annex 2: Risk Perception Factors

Source: Convello VT et al¹

- 1) **Voluntariness.** Risks perceived to be involuntary or imposed are less readily accepted and perceived to be greater than risks perceived to be voluntary.
- 2) **Controllability.** Risks perceived to be under the control of others are less readily accepted and perceived to be greater than risks perceived to be under the control of the individual.
- 3) **Familiarity.** Risks perceived to be unfamiliar are less readily accepted and perceived to be greater than risks perceived to be familiar.
- 4) **Equity.** Risks perceived as unevenly and inequitably distributed are less readily accepted than risks perceived as equitably shared.
- 5) **Benefits.** Risks perceived to have unclear or questionable benefits are less readily accepted and perceived to be greater than risks perceived to have clear benefits.
- 6) **Understanding.** Risks perceived to be poorly understood are less readily accepted and perceived to be greater than risks from activities perceived to be well understood or self-explanatory.
- 7) **Uncertainty.** Risks perceived as relatively unknown or that have highly uncertain dimensions are less readily accepted than risks that are relatively known to science.
- 8) **Dread.** Risks that evoke fear, terror, or anxiety are less readily accepted and perceived to be greater than risks that do not arouse such feelings or emotions.
- 9) **Trust in institutions.** Risks associated with institutions or organizations lacking in trust and credibility are less readily accepted and perceived to be greater than risks associated with trustworthy and credible institutions and organizations.
- 10) **Reversibility.** Risks perceived to have potentially irreversible adverse effects are less readily accepted and perceived to be greater than risks perceived to have reversible adverse effects.
- 11) **Personal stake.** Risks perceived by people to place them personally and directly at risk are less readily accepted and perceived to be greater than risks that pose no direct or personal threat.
- 12) **Ethical/Moral nature.** Risks perceived to be ethically objectionable or morally wrong are less readily accepted and perceived to be greater than risks perceived not be ethically objectionable or morally wrong.
- 13) **Human vs. natural origin.** Risks perceived to be generated by human action are less readily accepted and perceived to be greater than risks perceived to be caused by nature or “Acts of God.”
- 14) **Victim identity.** Risks that produce identifiable victims are less readily accepted and perceived to be greater than risks that produce statistical victims.
- 15) **Catastrophic Potential.** Risks that produce fatalities, injuries, and illness grouped spatially and temporally are less readily accepted and perceived to be greater than risks that have random, scattered effects.

Annex 3: 25 key crisis communication recommendations by Peter Sandman

in Sandman, PM. "Crisis Communication: A Very Quick Introduction.", 2004, Available at:
<http://www.psandman.com/col/crisis.htm>

- Don't over-reassure.
- Put reassuring information in subordinate clauses.
- Err on the alarming side.
- Acknowledge uncertainty.
- Share dilemmas.
- Acknowledge opinion diversity.
- Be willing to speculate.
- Don't overdiagnose or overplan for panic.
- Don't aim for zero fear.
- Don't forget emotions other than fear.
- Don't ridicule the public's emotions.
- Legitimize people's fears.
- Tolerate early over-reactions.
- Establish your own humanity.
- Tell people what to expect.
- Offer people things to do.
- Let people choose their own actions.
- Ask more of people.
- Acknowledge errors, deficiencies, and misbehaviors.
- Apologize often for errors, deficiencies, and misbehaviors.
- Be explicit about "anchoring frames."
- Be explicit about changes in official opinion, prediction, or policy.
- Don't lie, and don't tell half-truths.
- Aim for total candor and transparency.
- Be careful with risk comparisons.