

# For an effective communication during infectious outbreaks

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## What is TELL ME?

During infection outbreaks, one of the major problems has always been to communicate with the population in order to influence behaviours, reduce the spread of disease and avoid panic. Failures in this approach can lead to miscommunication, generate false alarms and complicate the task of healthcare professionals, as it happened during the H1N1 influenza pandemic in 2009. TELL ME (Transparent communication in Epidemics: Learning Lessons from experience, delivering effective Messages, providing Evidence) is a 36 months Collaborative Project, funded by the European Commission within the FP7, that combines public health, social sciences, behavioural sciences, political sciences, law, ethics, communication and media, with the aim of providing evidence and developing models for improved risk communication during infectious disease crises.

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## Methods

- Several systematic reviews and searches conducted on public libraries and archives like MEDLINE, Cinahl or EMBASE.
- An analysis of some case studies about the main infectious outbreaks that occurred during the 21st century, with particular attention to what happened during 2009 pandemic (H1N1).
- An epidemiological assessment of both the US and EU populations, including vaccine coverage rates, the incidence of disease, and demographic characteristics of the unvaccinated.
- An analysis of risk, including the acceptable risk, actual risk, perceived risk and theoretical risk associated with vaccination and vaccine-preventable illness.
- A systematic review of anti-vaccination websites, focused on their communication networks, contents of their Web sites, and arguments.
- A systematic review of peer-reviewed and gray – agency reports and articles taken from the popular, non peer-reviewed literature – articles, aimed to identify the best strategies to support vaccination.

## Objectives

1. To collect and assess evidence about population behavioural responses to infectious disease outbreaks, and ways in which different types of communication can affect human behaviour.
2. To identify and report emerging challenges, new methods and tactics in communication concerning infectious disease outbreaks.
3. To produce a series of guidance documents on new communication strategies for health professionals and agencies to effectively engage with vaccine-resistant groups.
4. To design, construct and test a prototype of a computational method for simulating the actions and interactions of autonomous decision-making entities within a virtual environment during an epidemic outbreak, in order to observe the emergence of effects at the macro level (Agent-Based Social Simulation).
5. To develop an integrated, evidence-based, communication package (TELL ME Communication Kit), which will be implemented by establishing a network with similar projects, relevant stakeholder organisations and international agencies, in order to offer a new participatory model for crisis communication.

## Results

### Learning from the past: the importance of being trusted

A particular focus was dedicated to the 2009 H1N1 pandemic, being the most recent infectious disease outbreak at global level, with regard to communication topics. The exaggerated sense of alarm generated by communication mistakes during H1N1 pandemic in 2009 is a good example of how a pandemic crisis should not be handled by public health authorities.

#### Factors that decrease public trust in crisis communication



Those communication mistakes led to increasing levels of distrust, particularly about vaccination. The H1N1 pandemic and the campaign to promote widespread vaccination of vulnerable populations were perceived by many as manufactured or exaggerated threat in order to boost vaccine sales.

### Learning from the past: recent strategies and the flow of communication

TELL ME analysed the recent strategies adopted by the OMS and the CDCs against possible pandemics. The experts of the consortium concluded that several progresses have been made as far as coordination and communication between different countries and authorities concern, but the interactions between ministers, healthcare professionals and the public within each country still need to be strongly improved.

TELL ME also studied the importance of the flow of communication: most of the communication that was found in the reports, both between the international organizations and the member states, and between them, the healthcare workers and the public, was one way. This occurred even though diverse communication channels were used, including new and social media that opened new "bottom-up" opportunities for communicating feedback. Therefore, it is recommended to give more emphasis to a two-way flow of communication and its value in informing communication strategies.

### Learning from the past: 10 points for an effective pandemic communication

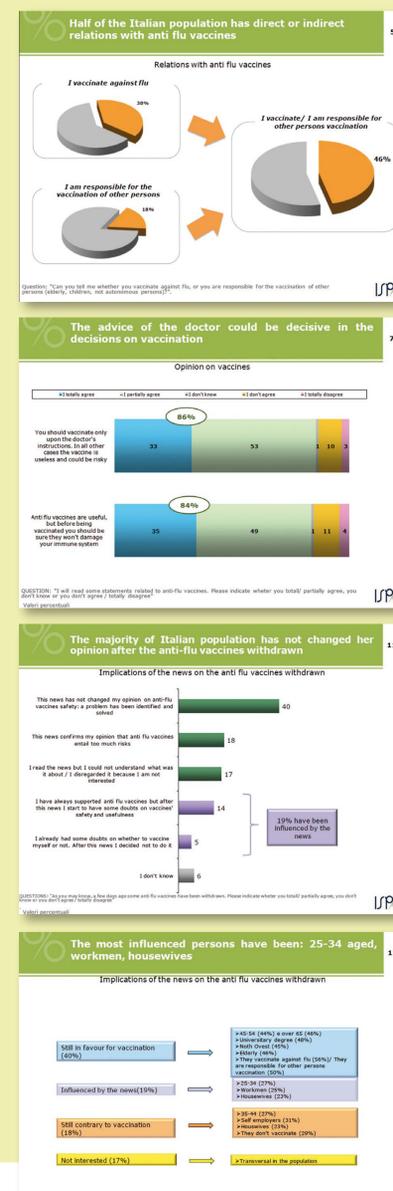
1. To better train healthcare workers by giving them a clear understanding of the alternative ways to communicate risk and address specific concerns expressed by the varied groups of society in case of pandemic.
2. To avoid concealing or 'softening' information, since is just a matter of time before censorship is unmasked, and such an unmasking will always lead to suspect and discredit.
3. To be flexible in terms of communication, being ready to correct any information if and when the situation changes.
4. To plan the communications with the public in synchronisation with the different stages of the outbreak.
5. To be cautious with the language used to describe the disease and any associations made with specific populations, in order to avoid any risk of social stigmatization.
6. To avoid contradictory claims or statements made from health experts and representatives of public health institutions.
7. To not have a detached attitude when dealing with urban myths that thrive around pandemic and vaccines. To tailor the communication register based on the different targets.
8. To make clear that there is a component of uncertainty when predicting the evolution of a pandemic.
9. To establish a communication leadership, way before the appearance of a pandemic.
10. To tailor the communication register based on the different targets.

### Learning from the past: possible strategies for vaccine support

- Vaccine education and promotion should begin in training. Curricula of all medical professionals and medical support schools should include immunization education. Physician and nursing schools should require demonstration of a sound understanding of vaccination and all of its personal and public health implications.
- Target vaccine-promoting literature to professional association publications and newsletters.
- Increase partnership between public health organizations and clinicians.
- Make updated vaccination information a part of continuing medical education training, also through a CME (Continuing medical education) project, whose feasibility has been demonstrated by TELL ME WP2.
- Consider the creation of a WHO endorsed "vaccination supporter" emblem that can be used on identification tags, office signs, practice advertisements, etc.
- Develop multi-pronged programs to address misinformed and erroneous vaccination recommendations from health care professionals.
- Enforce high standards for acceptance to peer-reviewed literature, requiring more rigorous review of reported data, methods and conclusions.

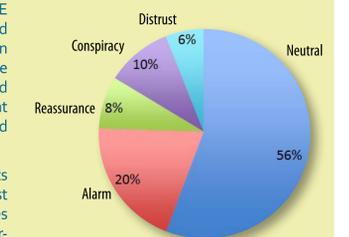
### Monitoring public opinion: an Italian case study

In October 2012, on the verge of the seasonal flu vaccine campaign, Italy, Austria, France, Germany, Spain, Switzerland and Canada suddenly announced the recall of five different influenza vaccines produced by Crucell and Novartis. Following further risk assessments, such a suspension has been lifted in most of the countries, Italy included. TELL ME commissioned an instant poll about the impact of these facts on people's attitude towards flu vaccination by contacting 802 persons, representative of the whole Italian adult population, with a Computer Assisted Telephone Interview.



### Monitoring public opinion: Twitter-based case study on H7N9 outbreak

Using social media to monitor diseases and to spread information about them is one of the innovative communication strategies that has a central role in the TELL ME project. More recently, two cases caught worldwide attention: the H7N9 and the MERS outbreaks. TELL ME monitored both through social media and chose to focus on the former, since it seems to be under control and enclosed, whilst MERS is still a potential serious threat to public health. TELL ME ran a hashtag-based search on Twitter in order to extrapolate the informative and emotional content of the tweets related to the H7N9 virus.



TELL ME experts surveyed the past and potential uses of social media during epidemics and outlined opportunities and challenges presented by their use as a crisis communications tool. They concluded that it is important for health authorities and other organisations to have a strong presence on relevant social media platforms in order to establish authority in crisis discourses as early as possible.

## Future perspectives

The first results obtained by TELL ME can help all the actors involved in communication of infectious outbreaks to better achieve their objectives. Also, the project will be one of the first experience of Participatory agent-based simulations applied to epidemic outbreaks. The Simulation Model, together with the Communication Kit, will provide an invaluable tool for public health officials, decision makers and risk communicators. The project will start a research paper series that will hold an ISSN number, available on the project's website, and feature the main outputs from the project in the form of research papers. A key communication activity will be the organization of Final Conferences devoted to a broader audience, where TELL ME partners will present the project's results and stimulate the debate around them, involving all the relevant stakeholder categories.

- By pursuing these aims, the consortium will be able to:
- improve communication preparedness for the next major epidemic outbreak;
  - minimize deviations between perceived and intended messages during the full course of the possible next pandemic.

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