

RISK COMMUNICATION STRATEGIES USED IN THE 2009 PANDEMIC INFLUENZA A H1N1PDM

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Abstract: Introduction: Communication in public health emergencies is an important means to ensure population's confidence in the decisions of the central authority. Usually, the lack of planning communication strategy entails negative reactions from the population and decreased compliance to the recommended preventive measures in response to the emergency. Objectives: The study presents the techniques and means of communication used in several countries of the world during pandemic influenza A H1N1pdm in 2009 and the data on the impact of different communication strategies on the behaviour of population towards the recommended public health measures and towards vaccination. Method: The data were collected and summarized by evaluating scientific articles, official public reports of the countries and the information posted on the websites of public health authorities. Results: The most frequently used communication techniques were teleconferences, posters, informative flyers and dedicated hotlines addressed to both population and medical staff involved in the implementation of public health measures. Creating crisis committees or special units dedicated to the accumulation of information and communication was one of the solutions found by some countries to ensure a coordinated communication type. In the United Kingdom, of 1000 participants in a study to assess the impact on communication, only 39% said they had received informative flyers and only 26% of them read them. Basically, there was no difference in behaviour between those who received the flyer information and those who did not received it (OR = 0.9, 95% CI: 0.7-1.2). In a study conducted in France, it was shown that only 17% of the 2,253 people surveyed wanted to be vaccinated with the pandemic vaccine. In Romania, the survey conducted in 2010 within the FLUMODCONT project, indicated that only 58% of respondents were offered the pandemic vaccine and of these, only 34% said that did the vaccine. Conclusions: Although in many countries of the world, national preparedness plans included references to the ways and techniques of communication and target groups, whom the messages should be addressed to in a pandemic, in 2009, they have not always proved effective. Since the level of severity of the pandemic was lower than expected, there were shortcomings in communication both towards the public and to the health care providers. Unclear and not always coordinated communication led in many states to low levels of influenza vaccination coverage, and also to a lower confidence in the use of vaccination as a safe and effective preventive measure.

Cuvinte cheie: comunicarea riscului, strategii, virus gripal A H1N1pdm, pandemie

Rezumat: Introducere: Comunicarea în situații de urgență de sănătate publică reprezintă un mijloc important pentru asigurarea încrederii populației în deciziile autorității centrale. De obicei, lipsa planificării strategiei de comunicare atrage după sine reacții negative din partea populației și o aderență scăzută față de măsurile preventive recomandate ca răspuns la situația de urgență. Obiective: Studiul prezintă tehnici și căi de comunicare utilizate în câteva state ale lumii în timpul pandemiei de gripă cu virus gripal A H1N1pdm din anul 2009, cât și date privind impactul diferitelor strategii de comunicare asupra comportamentului populației față de măsurile de sănătate publică recomandate și față de vaccinare. Metodă: Datele prezentate au fost colectate și sintetizate prin evaluarea unor articole științifice, rapoarte oficiale publice ale statelor și informații postate pe paginile de internet ale autorităților de sănătate publică. Rezultate: Cele mai utilizate tehnici de comunicare au fost teleconferințele, postere, fluturași informativi și linii telefonice dedicate, adresate atât populației cât și personalului medical implicat în implementarea măsurilor de sănătate publică. Crearea de comitete de criză sau unități special dedicate acumulării de informații și comunicare a uneia dintre soluțiile găsite de unele țări pentru a asigura o comunicare de tip coordonată. În Marea Britanie, din 1000 de participanți la un studiu de evaluare a impactului comunicărilor efectuate, numai 39% au declarat că au primit fluturașii informativi și dintre aceștia doar 26% le-au și citit. Practic nu a existat nicio diferență de comportament între cei care au primit fluturașii informativi și cei care nu i-au primit (OR=0.9; 95% CI: 0.7-1.2). Într-un studiu efectuat în Franța a rezultat că numai 17% dintre cei 2,253 de locuitori intervievați doreau să se vaccineze cu vaccine pandemic. În România, rezultatele studiului efectuat în anul 2010, în cadrul proiectului FLUMODCONT, au indicat că numai la 58% din respondenți li s-a oferit vaccine pandemic, iar dintre aceștia numai 34% declară că l-au și administrat. Concluzii: Deși în multe state ale lumii, planurile naționale de pregătire cuprindeau referiri la căile și tehnicile de comunicare și grupurile țintă cărora trebuie adresate mesajele, în cazul unei pandemii, în anul 2009 acestea nu s-au dovedit totdeauna eficiente. Deoarece nivelul de severitate al pandemiei a fost mai mic decât cel așteptat au existat deficiențe în comunicare atât către public cât și către furnizorii de servicii de sănătate. Comunicarea neclară și nu totdeauna coordonată a dus în multe state ale lumii la niveluri mici ale acoperirii vaccinale antigripale, dar și la scăderea încrederii populației în utilizarea vaccinării ca măsură preventivă sigură și eficientă.

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PUBLIC HEALTH AND MANAGEMENT

INTRODUCTION

Communication with the public, public health system structures, schools and many other categories of institutions and authorities in a public health emergency is critical in crisis management. Communication strategies need to be developed before the crisis, so that to be applied to different scenarios with detailed objectives, defining the target group, the ways and channels of action, and the action plans.

Communication objectives before an outbreak is to educate, inform, and ultimately increase vigilance and finally, to prevent. When an epidemic or pandemic is imminent, risk communication objectives are changed in order to contribute to the measures and recommendations to limit and control the phenomenon and the informed medical personnel will be ready to act accordingly.

Given the social disruption expected in a pandemic, communication activities should already be organized to achieve its objectives to support the preventive measures, and ultimately, to save lives.(1)

The loss of public confidence, especially during a crisis, may threaten the stability and sustainability not only in the health sector. Current pandemic preparedness plans, which include communication plans, serve to strengthen the trust of the community, contributing to the success of measures to limit the disease, as well as to those relating to the provision of critical infrastructure in the health system. Communication in public health emergencies is an important means to ensure confidence in the decision taking of the central authority. Usually, the lack of planning communication strategy entails negative reactions from the population and a decreased compliance to the recommended preventive measures in response to the emergency situation.(2)

The emergence of new strains of influenza A virus H1N1pdm led to difficulties and challenges in terms of communication. A number of uncertainties related to the disease, its severity, prevalence rates have existed in the initial phase of the pandemic.(3)

As a result, there has been a great challenge in terms of how to communicate the data known in the initial pandemic stage. This had to be made in good time, especially since, as the pandemic evolved, new information became known and the recommendations were changed. One of the biggest challenges consisted of the fact that the forms of disease were mild for most people, but at the same time, there were severe diseases in certain subgroups of the population, including young adults and pregnant women.(4) At the same time, there were difficulties in communicating the availability of the pandemic vaccine of the priority population groups, of safety and efficacy of the vaccine.(5)

PURPOSE

During the pandemic period, there were various guidelines and recommendations to ensure good communication with the general population and the health personnel, health care providers, regarding the application of methodologies and procedures necessary for various addressed phases. Thus, the communication had different messages during the disease delay period – “containment” as against the period of limiting its spread.

The study presents the techniques and means of communication used in several countries of the world during the pandemic influenza A H1N1pdm in 2009, as well as data on the impact of different communication strategies on the behaviour of people towards the public health measures recommended and towards vaccination.

METHODS

The data presented were collected and synthesized through evaluating scientific articles, public official reports and

information posted on the websites of public health authorities. The information on the strategies and means of communication were summarized and divided into three target groups whom the messages were addressed to: medical personnel, other health care providers and the general population. The study summarizes the results of the impact analysis of the provided strategies presented in studies conducted in three countries of the world and Romania.

RESULTS

At EU level, there were used different tools and communication channels between the national appointed experts and the European structures, such as the audio conferencing system of the Health Security Committee, called Arkadin, as well as platforms such as Health Emergency and Diseases Information System.

In the first four months of the pandemic, the Early Warning and Rapid Response of the European Commission (EWRS) communication system represented the communication system the most commonly used by the experts from the Member States of the European Union. They said they had carried reports using EWRS at least twice a day. EWRS platform was even used in excess, so that some important information was lost among numerous posted messages.

HEDIS (Healthcare Effectiveness Data and Information Set) is a system of the European Commission, through which public health information was transmitted to professionals during the pandemic, providing them with a number of useful tools, the most recent and relevant scientific information. During the pandemic, there were difficulties in accessing the platform; during the crisis, due to the need for coordinated communication, it has been created a web page dedicated to the communication at the disposal of the persons responsible for the communication, designated by the Member States.

Medisys, another communication channel available to the Member States by the European Commission is an easy to operate system, but it was not heavily used during PDM 2009 H1N1 pandemic.(6)

Other means of communication used in Canada, USA, UK and Romania, structured in three target groups have been synthesized and are presented in table no. 1.

Table no. 1. Synthesis of strategies and channels of communication used during influenza pandemic AH1N1pdm 2009

Country	Medical staff	Health care providers	General population
Canada (7,8,9)	<ul style="list-style-type: none"> • Creating a crisis-management system - national system of standard procedures • Teleconferences/meetings • Unit dedicated to gathering new information • Web pages, email, instant messages 	<ul style="list-style-type: none"> • Professional association has created a crisis committee and developed recommendations that were given to members • Teleconferences / Briefing sessions • Facsimiles • Telephone line • Web pages, email, instant messages 	<ul style="list-style-type: none"> • Traditional mass-media, posters, letters • Contacting schools, kindergartens, ethnic communities • Web pages, Twitter, Facebook • Telephone line • Presentations and briefing sessions with the representatives of the community
SUA (10,11)	<ul style="list-style-type: none"> • Teleconferences/meetings • Web pages, email • Creation of a Health Alert Network 	<ul style="list-style-type: none"> • Teleconferences / meetings • information campaigns/ Telephone lines 	<ul style="list-style-type: none"> • Traditional mass-media, posters • Workshops with the mass/media representatives • Web pages, Twitter, Facebook, newsletters,

PUBLIC HEALTH AND MANAGEMENT

	<ul style="list-style-type: none"> • Collaboration with professional organizations 	<ul style="list-style-type: none"> • Web pages, email • Designating the communication team • Health Alert Networks 	<ul style="list-style-type: none"> • email, banners • Designating spokesmen • Communication in many languages
United Kingdom (12)	<ul style="list-style-type: none"> • Creation of Flu Response Centres • Teleconferences/meetings • Web pages 	<ul style="list-style-type: none"> • Teleconferences /meetings • Internal newsletters • Web pages, internet, email • Direct communication with the family physicians through the professional leaders • hotline dedicated to Flue Response Centres 	<ul style="list-style-type: none"> • Traditional mass-media • hotline dedicated to Pandemic National Service • Web portal • Sending information flyers by mail to the entire population.
Romania	<ul style="list-style-type: none"> • Creating the Flue Pandemic National Committee • Designing CNSCBT as the responsible unit for gathering internal and international information, organization the guard 24/7 • official addresses, methodologies, protocols faxed, some approved by order of Minister 	<ul style="list-style-type: none"> • Teleconferences • official addresses, methodologies, protocols faxed, some approved by order of Minister • Email • Telephone communication permanently at CNSCBT 	<ul style="list-style-type: none"> • Designating communicators by order of Minister • Traditional mass-media, posters, TV spots • Web pages • Newsletters mailed to the public through the database of CNAS

The impact of different communication strategies was measured and several scientific papers have become available. A study in the United Kingdom found that the information transmitted through informative leaflets had no effect on the behaviour of the population during the pandemic. They were sent to all households in the country and informed the people about the three measures: hand washing, ensuring surfaces housekeeping, the attitude in case of the illness of a family member or group of friends. Of 1000 participants in the study who were interviewed, only 39% said that they received the information flyers and of these, only 26% have read them. Basically, there was no difference in behaviour between those who received the flyer information and those who did not received it (OR = 0.9, 95% CI: 0.7-1.2).(13)

In another study in France, it was shown that only 17% of the 2,253 people surveyed wanted to be vaccinated with the pandemic vaccine. The study showed that those who had been advised to be vaccinated by their family physician were 4.6 times more likely to be vaccinated, compared to those who did not receive this recommendation (OR = 4.57, 95% CI: 2.92-7.14).(14)

Also in the U.S., in a study conducted after the pandemic, it revealed that very few Americans knew who were the priority population groups for pandemic vaccination and stated that this subject is based on the advice of the family physician. Only 29% of the 4,040 people surveyed could properly be included in one of the target groups for the pandemic vaccination in the U.S.(15)

In Romania, a European-funded project under FP7 was held in June 2008 - May 2011. In the project, several specialized

institutions and universities were co-opted from the European countries: UK, Italy, Finland, France, Netherlands. The project was called FLUMODCONT (MODdelling the spread of pandemic inFLUenza and strategies for its CONTainment and Mitigation) and had among its targets, behaviour and social acceptance evaluation of the restrictive measures that can be adopted in a pandemic situation and the investigation of spontaneous change in the behaviour of the population according to the degree of information.

The transversal population study was conducted by using a standard questionnaire by telephone interview. The sample population was weighted calculated in terms of structure by age groups, gender and urban-rural environment. The study included only people aged 18 and over, and on the basis of the literature date, it was established an expected prevalence from the public acceptance regarding containment, pre- pandemic and pandemic vaccination and prophylactic use or treatment with antiviral of about 80 %. Considering an error of + / - 5 %, the calculated sample was of 250 people, to which a refusal rate of participation of 30 % was added, which resulted in a final sample of 325 interviews available. Due to the emergence of pandemic influenza A H1N1 in Romania, two such studies were conducted using the same methodology of the study, namely in the initial pandemic period (2009) and post- pandemic (2010).

The administration of the questionnaire was made via the CATI system - Computer Assisted Telephone Interviews, using the RDD - Random Digit Dialing for generating random fixed numbers. The data collected by questionnaire, divided into several parts were: general information about the health and behaviour of the respondents during seasonal influenza; information on the level of knowledge about the new virus A H1N1pdm 09; information about the current behaviour, given the initial pandemic phase; general demographic information. There were a total of 1025 completed questionnaires.

By comparing the results from the two stages of progress in the behaviour of people towards public health measures, it has been noticed a substantial reduction in the number of people who agreed the post-pandemic vaccination, compared to the initial phase of the pandemic, which is a proof of the failure of communication to the public of the benefits of vaccination.

Thus, in 2009, the majority of respondents had a favourable attitude towards pandemic vaccination, located around 70% in all age groups, compared to only 34% in 2010. This result should be interpreted with caution, however, given the actual vaccination coverage of only 8% in the general population aged over 16 years, documented by official statistics.

Also as a measure of the impact and effectiveness of communication strategy messages transmitted by the population, the results showed that 7.2% of respondents who stated in 2009 that they collected information from the media, in 2010 the percentage had risen to 55.8% in the detriment of family doctors who previously constituted the main source of information for the population.

CONCLUSIONS

Communication strategies and clearly defining the objectives previously to a public health event of this type is a key factor in the successful implementation of measures to limit illnesses. Although in many states, national preparedness plans included references to the ways and techniques of communication and target groups whom the messages should be addressed to in a pandemic, in 2009, they have not always proved effective. Since the level of severity of the pandemic was lower than expected, there were shortcomings in communication, both towards the public and to the health care providers. This was demonstrated by the very low level of acceptance of people towards the most effective preventive measure, that is vaccination. Unclear and not

always coordinated communication resulted in many states, to low levels of influenza vaccination coverage and to a lower confidence in the use of vaccination as a preventive safe and effective measure.

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