

Communication of Interagency Networks of Public Health and Law Enforcement Institutions during Emergency Situations: The USA Case

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Abstract

This article examines the importance of communication among agencies which play a part in emergencies and of interagency coordination in today's turbulent environment. Human beings have still been experiencing many natural and biological disasters in the world. These disasters gave many tough lessons to public managers and they experienced many difficulties in coordinating disaster response efforts. Extensive communication must be performed efficiently by organizations which take decisions during emergencies. Even if, hierarchical networks do efficiently in routine conditions, they function inadequately in dynamic settings of emergencies. In short time, it's survival for the network to keep its interoperability as not obtaining any failure. Therefore, mutual collaboration and understanding for the future needs of disaster response efforts must be expanded by public health and law enforcement institutions as illustrated with the USA case in the article.

Key Words: Communication, Interagency Networks, Emergencies, Public Health, Law Enforcement, Disaster Response

Acil Durumlarda Kamu Sağlığı ve Kanun Uygulayıcı Kamu Örgütlerine Ait Ağbağların İletişimi: ABD Örneği

Özet

Bu makale, acil durumlarda rol almakta olan kamu örgütleri arasındaki iletişimin ve günümüzün değişken ortamında örgütlerarası koordinasyonun önemini incelemektedir. İnsanlık halen dünyada meydana gelmekte olan pek çok doğal ve biyolojik afetleri yaşamaktadır. Bu felaketler, kamu yöneticilerine çok zor dersler vermiş ve onlara felaketlere karşı koyma faaliyetlerinin koordine edilmesinde oldukça fazla güçlükler yaşatmıştır. Yaygın iletişim, acil durumlarda karar alacak örgütler tarafından etkin bir şekilde sağlanmalıdır. Hiyerarşiye dayalı ağbağlar rutin durumlarda verimli bir şekilde çalışsalar bile acil durumların ortaya çıkardığı dinamik ortamlarda yeterli şekilde fonksiyonlarını yerine getiremezler. Kısa sürede, bir ağbağın herhangi bir zaafiyete maruz kalmadan işlevini koruyabilmesinin hayati önemi vardır. Bu yüzden, felaketlere karşı koyma ve geleceğe ait ihtiyaçların karşılanmasında, kamu sağlığı ve kanun uygulayıcı örgütlerin karşılıklı işbirliği ve anlayışı, makalede anlatılan ABD örneğinde olduğu gibi geliştirmeleri gerekmektedir.

Anahtar Kelimeler: İletişim, Kurumlararası Ağbağ, Acil Durumlar, Kamu Sağlığı, Kanun Uygulayıcılar, Felaketlere Karşı Koyma

1. Introduction

Communication among agencies which play a part in emergencies keeps its unignorable importance in today's environment. Human beings have still been experiencing many natural and biological disasters in the world such as Hurricane Katrina in 2005, Hurricane Rita in 2005 and anthrax attack in 2001 left many unforgettable images in our memories. Public managers got many tough lessons from these disasters. Communication among the agencies was problematical. Lines of authority were uncertain, and implementation of disaster response plans was difficult. As

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is usual in disaster situations, individual and community group volunteers from all around the country came up to help in serving evacuees and rebuilding affected communities. Public managers experienced many difficulties in coordinating efforts of their own agency with the efforts of other organizations (Robinson and Gerber, 2007). Kapucu (2007) says that disastrous events require leaders to re-establish communication systems that have been disrupted or become plagued because of unusual load. It is crucial for public managers that they have to know what outmoded communication systems are available and deploy them promptly.

The case of Anthrax- a fatal disease nearly unseen for a century- in the media and among politicians in October 2001 started in Florida, in a short time spread out to entire states by influencing public perception of threat. As having threatened large population, it becomes a tool of terrorism as well. Nobody knew how extensive it might be, and who was at the rear of attacks which make public troubled. But it provided an opportunity to comprehend how organizational aspects caused risk communication problems and how organizational powers helped avoid those (Chess and Clarke, 2007).

2. The Emergence of Organizations

There are many theoretical perspectives about why organizations are created. According to the rational system perspective, organizations are created to improve efficiency and effectiveness through (a) distribution of labor, (b) lowered transaction costs, (c) more efficient information processing, and (d) more effective observation of agents. Besides, organizations come up to take benefit of the production economies offered by a complicated division of labor and to meet the cognitive and control challenges posed by complex and uncertain environments. On the other hand, from a natural system perspective, organizations emerge as a picture of rationalized belief systems that proliferate in the wider social environment (Scott, 1998).

3. Efficient Information Processing

One of the reasons for the emergence of organizations in the rational system perspective is that it has superior capability to manage flows of information. Hierarchy enables a centralized communication network where information can be processed more efficiently. Another point of view is that as tasks become more complex, decentralized structures are superior than centralized ones.

4. Social Networks

A network can be defined very basically as a series of nodes that are connected to each other. Social network is a social structure made of nodes which are generally individuals or organizations. They are tied with one or more specific types of interdependency. Social network is also a kind of analysis on the relations among particular social bodies and patterns/implications of these relationships (Wasserman and Faust, 1999). Social networks run on many levels, from families to the level of institutions, and play a significant role in deciding the way problems are solved, organizations are run, and the extent to which individuals succeed in attaining their goals.

O'Toole and Laurence (1997) define networks as structures of independence involving multiple organizations or parts thus, where one unit is not only the formal subordinate of the others in some larger hierarchical arrangement. Networks display some structural stability but extend beyond formally established linkages and policy-legitimated ties. The institutional glue setting networked ties may contain authority bond, exchange relations, and coalitions based on common interest, all within a single multi-unit structure.

McGuire (2002) states that networks are structures concerning multiple nodes such as agencies and organizations with multiple linkages. A public management network therefore includes agencies involved in a public policy making and administrative structure throughout which public goods and services are planned, designed, produced, and delivered. Such networks can be formal or informal, and they are characteristically intersectoral, intergovernmental, and based functionally on a specific policy or policy area. Specifically, officials from government organizations and agencies at federal, state, and local levels run the structures of exchange and production with representatives from profit making and non-profit organizations.

The characteristics of networks—their quality of being spread out, their capability to coexist both within and outside hierarchies, their ability to make market more efficient by helping directed flows of information and supplies— give them an indefinable quality. In some perspectives, they emerge little more than plastic organizations that can be molded in many different ways. Networks can be in various size, shape, membership, consistency, and purpose. Networks can be large or small, local or universal, domestic or transnational, cohesive or diffuse, centralized or decentralized, goal-focused or aimless. A specific network can be narrowly and firmly focused on one goal or largely oriented toward many goals, and it can be either exclusive or surrounding in its membership (Williams and Vlassis, 2001).

Networks can be classified as:

- Symmetric—non-directional
- Asymmetric—directional or
- Affiliational—membership in
- Transactional—exchange with, buy from, sell to
- Communicative—face to face, phone, email, other
- Behavioral—fight with, play with, work with, smoke with
- Attitudinal—agree with, disagree with
- Influential—influenced by, seek advice from.

Networks help flows of information, knowledge, and communication as well as more-tangible supplies. As communications have become cheaper and easier, networks expand extremely. Indeed, technological networks facilitate the operation of larger and more-dispersed social networks and can even operate as a critical force multiplier for certain kinds of social networks.

Wasserman and Faust (2006) states that the essence of the social network analysis is it concentrates on the relationships or ties between the units or nodes in the network. Some kind of ties can be related to a variety of underpinning factors, such as "kinship, material transactions, flow of resources or support, behavioral interaction, group co-memberships, or the affective evaluation of one person by another" (p.8). In many occasions there would be some kind of interactions between the nodes, whether of supplies or services. The network concept stresses the connections among actors according to the basis for the relationship. In the social network analysis the experimental attributes of social factors such as race or ethnicity of people, or size or efficiency of collective bodies such as corporations or nation states is realized in terms of patterns or structures of ties among units. Relational ties among actors are primary and attributes of actors are secondary.

For that reason, social network analysis examines such issues as the significance or importance of particular actors in the network; the concept of centrality, in other words, the actor in the network with the most important ties to other actors; the concept of closeness and distance related to communication lines among the actors in the network; the concept of cohesive subordinate groups, i.e., subsets of individuals among whom with relatively strong, direct, intense, frequent, or positive ties; the extent to which the interactions and communications within it are synchronized by explicit or implicit rules; and the number and diversity of individuals within the network.

It does not matter what the focus is that there is perception of the elasticity and dynamism of social networks, behaviors that come from the ways in which ties are continually created and strengthened or weakened and broken. Partially because of this dynamism, some sociologists claim that network-based organizations are able to get greater performance than are more traditionally structured hierarchical organizations, particularly in terms of adaptability to changes in their environment (Williams and Vlassis, 2001).

5. Communication among Networks

Networks take many forms of communication in modern organizations, including individual contact networks, flows of information within and between groups, strategic groups among firms, and global network organizations. As a tool of communication, generated messages are conveyed in its broadest sense of refer to data, knowledge, information, images, symbols, and any other symbolic forms that can move from one point in a network to another or can be co-generated by network members (Monge and Contractor, 2003).

According to Tsgarousianou, Tambini and Bryan (1998) globalization leads people to set up new ties at a distance through a process of reforming, therefore restructuring the world and shift-

ing the focus from the local to the global. Communication plays a central role as it provides the information, knowledge, and motivation that enable people to predict alternative relations.

Modern organizations are more and more characterized by openness to the environment. Permeable organizational boundaries let and encourage open communication with external organizations not only for top managers, as in classical bureaucracies, but also for many other managers and employees. This openness of the organizational boundaries is carried out by managers and employees who communicate on a regular basis with individuals from other organizations (Manev and Stevenson, 2001). According to Miles and Snow (1986), the significance of communication across organizational boundaries has been increasing. Today's information period has brought the advent of the network organization which consists of vertically disaggregated business functions coordinated by a central unit.

The study of inter-organizational networks is often at the level of analysis of entire organization. Such networks symbolize an important communications through which organizations generate and distribute information to ease collective action in alliance. The structure of an inter-organizational network can improve the effectiveness of its participant's organizations by assisting interactions among them. Communication in inter-organizational networks produces trust, which affects the type of alliances that organizations form. Inter-organizational research seeks to augment the understanding of communication between organizations, but it does so, generally, by excluding communication within these organizations (Manev and Stevenson, 2001).

It is vital for an agency's ability to keep itself effective in a vigorous disaster environment by holding an effective circulation of information across organizational limits. If parties are not able to keep their contacts with each other and if flow of information does not perform appropriately, successful disaster and crisis management seems to be hard to predict. In order to accomplish the desired goals of preserving the community and of maintaining its performance, organizations need make well-versed decisions about how to get along with other organizations by determining the current level of communication and of interaction among them (Comfort, 1999). Kapucu (2006) approaches the importance of communication and decision making which are taken place in an uncertain environment. In this circumstance of uncertainty, communication must be performed efficiently by organizations in order to take a decision in allocating limited resources. At this point, it can be said that valid and well-timed communication is key in emergency response operations. Even if, hierarchical networks do efficiently in routine conditions, they function inadequately in dynamic settings of emergencies. In short time, it's survival for the network to keep its interoperability as not obtaining any failure. On the other side, constructing an effective communication system for emergencies is very hard since it may clash with the organizational structure formed for usual times. A bureaucratic structure runs better at the time the information is simple. However, the information in emergencies is mostly complex. Therefore, bureaucratic communication is dysfunctional in emergency situations (Brown and Miller, 2000).

Organizations, when they achieve coordination among many organizations can be more powerful and have strategic advantages, but it requires extensive effort to replenish and retain them. Coordination among multiple organizations during emergencies can be easier than in usual times. In today's turbulent circumstances, organizations repeatedly establish formal or informal associations in an attempt to work together to attain collective goals, deal with shared concerns and pursue commonly gainful ends. Inter-organizational partnership has become an outstanding characteristic of many different types of organizations recently. The significance of effective collaborative partnership has been accepted by several researchers, and it is kept as a regular topic of scholarly and practitioner-oriented literature (Gray, 1989).

6. Communication Between Public Health And Law Enforcement Networks During Emergency Situations

Public health and law enforcement are both got involved with issues that are of critical importance to communities. The information one agency desires to achieve its goal sometimes overlap with the other's information needs.

Public health's goals consist of:

- Protecting health and safety of the public.
- Stopping further cases of disease and outbreaks.
- Building science base for future prevention.

Law enforcement's goals consist of:

- Protecting health and safety of the public.
- Stopping further crimes from occurring.
- Apprehending and convicting criminals.

For instance; in the event of an outbreak, public health has to characterize when, where, and how disclosure occurred to find out who is at risk and who may need future care. If the outbreak is not obviously occurring, law enforcement needs to figure out where the event occurred and how victims were disclosed. They may need to talk with victims to develop evidence that can direct to those responsible (LEI Report, 2011).

Some certain public health functions, such as sexually transmitted diseases (STD) control, have always concerned cooperation with the law enforcement units. In such situations, public health officials usually do not convey information to the police that would effect in the arrest of infected persons for associated crimes such as prostitution. Yet even STD clinics report potential child abuse and provide information to police to assist their investigations. On contrary, during bioterrorism investigations there needs close cooperation between public health and law en-

forcement, which requires some blurring of their usual roles. Public health investigators will perform their work as forensic experts if there is a prosecution, and law enforcement will try to prevent the additional spread of disease by identifying and arresting the offenders (Richards, 2002). That is how networks take up with the concept of environment on communication in terms of boundary setting and boundary spanning strategies for their organizations.

On the other hand, Butler, Cohen, Freidman, Scripp, and Watz (2002) mention that during the investigation of a possible bioterrorism event, public health and law enforcement agencies take part under different circumstances. Such events can be one of two categories: overt and covert. In the overt event, the criminal announces responsibility for something (for example, release of an agent) or the nature of the event discloses itself (i.e., the 1995 Sarin attack by the Aum Hinrikyo in the Tokyo subway). In the overt attack, usually law enforcement first detects the event, leads the early response, and lets public health officials know (Figure at the next page). If persons are ill or preventive health services are indicated, public health will also takes part in the emergency response.

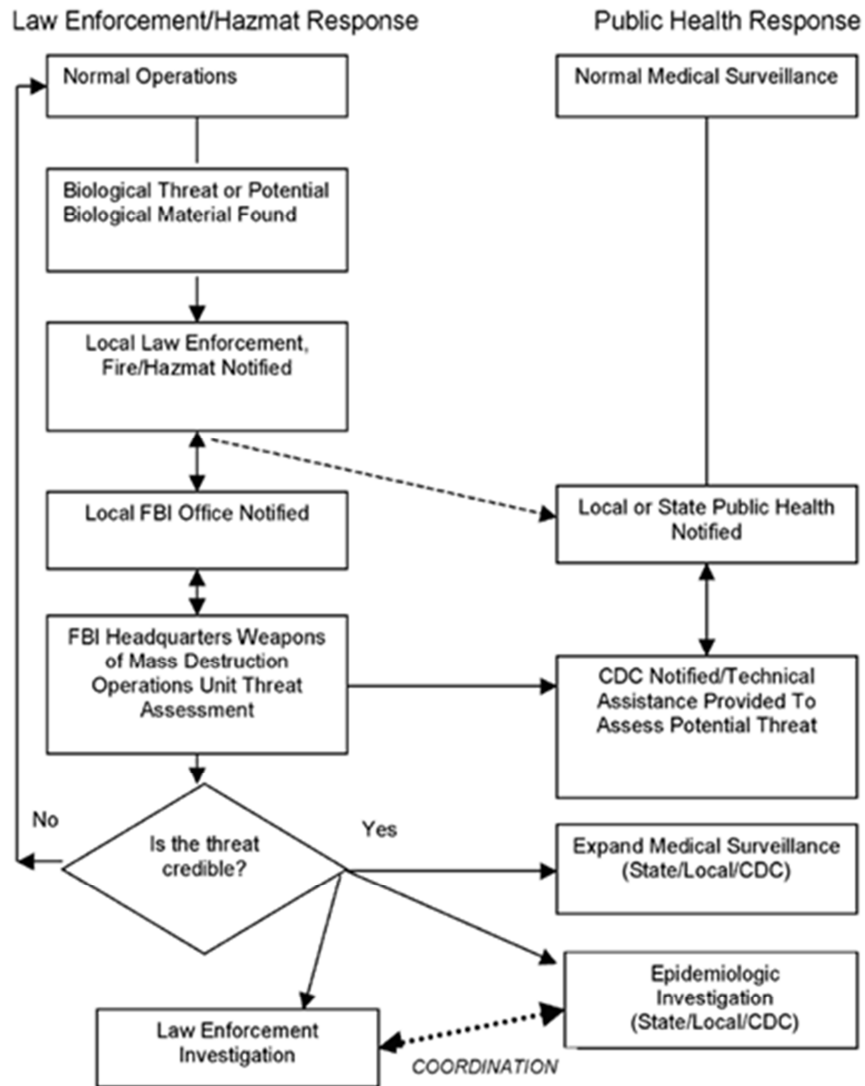


Figure 1. Likely flow of communication during overt bioterrorism in most (solid line) and some (dashed line) jurisdictions. HAZMAT, hazardous materials management personnel in the USA.

Source: Butler et al., 2002, p. 1153.

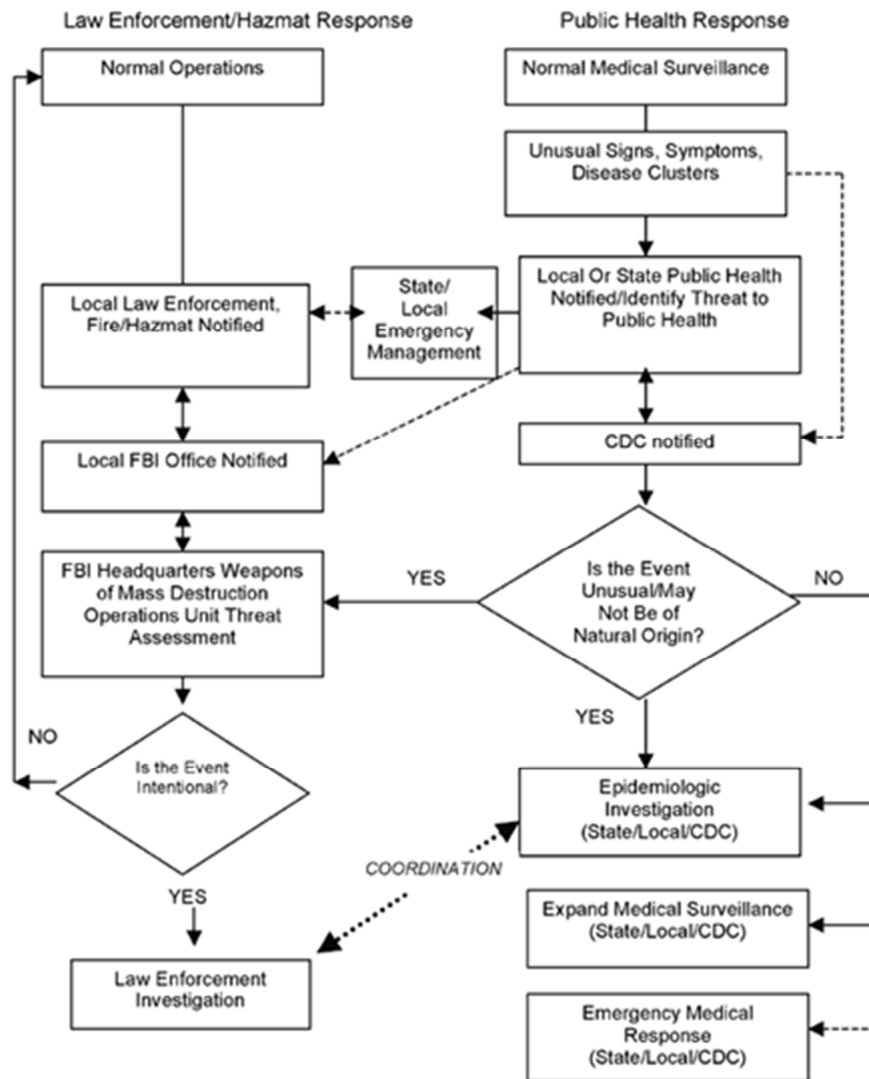


Figure 2. Likely flow of communication during covert bioterrorism in most (solid line) and some (dashed line) jurisdictions. HAZMAT, hazardous materials management personnel in the USA.

Source: Butler et al., 2002, p. 1153.

On the contrary, if the event is covert and characterized by an unrecognized release the presence of ill persons may be the first signal of an attack. In the covert attack, criminal aim may be unclear until some time after illnesses are known. This difference is vital for establishing and understanding the affiliation between public health and law enforcement. The covert event, at first,

may not be recognized as an attack, and public health usually first examines the problem and leads the initial inquiry (Figure at the previous page). The initial response will depend on diagnosis, medical care, and epidemiologic examination. The intentional and criminal nature of the event may not be immediately evident, and notification of law enforcement may be delayed as a result.

7. How Interorganizational Theory Can Be Applied To Networks?

Provan and Milward (1995) say that in the organization theory literature, effort on networks has been showed mainly by two theoretical perspectives: resource dependence, and interrelated exchange perspectives, and transaction cost economics, with most recent work concentrating on the latter approach. Each of these perspectives offers both complementary and contrasting aspects about the network form. For the most part, however, each perspective concentrates basically on the organizational experiences and conclusions of network involvement, with little attention paid to the entire network, except for its governance and structure.

Although individual agencies has their own level of service delivery function, some agencies will be more concerned and may offer higher quality services than others. When overall customer happiness relies on getting different services offered by multiple agencies, customer outcomes should be reasonable by concentrating on network-level activities and structure. The critical issue, both for customers and service providers and sponsors, is the effectiveness of the whole network of service providers, not only the one which offers higher qualities that are part of the network perform a better job than others in providing a particular component of service. That is, we could say that communication and partnership between Public Health and Law Enforcement agencies during emergency cases could be welcomed by victims without evaluating agencies individually. Obviously, a network may be well integrated and still be ineffective if individual provider agencies perform a poor service. Contrary to, even though the agencies in a system may offer outstanding services, overall results may be quite low if customers can only attain access to some of these services. The current view among many service experts, policy makers, and researchers is that by combining services throughout a network of provider agencies related through referrals, case management, and joint programs, customers will attain the benefits of reduced fragmentation and greater coordination of services, leading to a more effective system (Department of Health and Human Services, 1991). We could say that increasing quality can be thought an internal issue of an agency, but coordination of services would be considered an accomplishment of both agencies during emergency cases.

Milward (1982) informs that authority is so important in interorganizational relations. Each organization or network has their own specific goals and ends. Once they come together for building cooperation in term of performing a common task, those specific goals of each individual organization can be conflicted to each other. Naturally, each organization wish to follow their desired goals, but in order to accomplish the common task those goals and expected ends can be given up as much as organizations meet them at the adequate level. Milward also mentions that mandated authority of itself was essential to tighter coordination between units and that it could further facilitate coordination by leading to the creation of interorganizational councils.

As another facilitating issue of interorganizational networks, while performing coordinated actions, organizations may gain more outcomes than they do alone. In order to reach those outcomes, organizations try to be more contributive. Putterhill and Rohrer (1995) mention that there are behavioral/performance inferences occurring from network commitment. Specifically, that network commitment will be associated to network performance (i.e. positive collaborative results associated with a particular collaborative relationship). The rationale for this is quite straightforward. Where network members enlarge commitment to the network they are more likely to put greater efforts to work towards the goals of the network and put greater energies to solve particular relationship problems where they occur. Commitment should therefore support increased cooperative behaviors among network members leading to a greater likelihood of improved performance results. Even if all efforts were done, unexpected problems may be lived. During the anthrax case in 2001. Even though Public Health units' current planning efforts, exercises, and earlier experiences in responding to emergencies had helped encourage a fast and coordinated response, problems occurred because they had not completely projected the level of coordination required among responders and they did not have all the essential agreements in place to put the plans into operation quickly. Officials also mentioned that communication among response agencies was normally effective but public health officials had trouble reaching clinicians to give them guidance (GAO, 2011).

8. Conclusion

Communication between public health and law enforcement is prominent for future planning and response to emergency cases. Each organization can contribute significance to the work of the other. Besides, each group has a unique view of point to the situations and opportunities to exchange information. Public health and law enforcement institutions must respect each other's effort, principles, and culture. Learning from others and seeking the best practises would always help organizations on getting progress in our works. For that reason, communication and collaboration on disaster response efforts will be the key to take further steps. Therefore, public health and law enforcement institutions have to expand mutual collaboration and understanding for the future needs of emergency response.

When thought the existance of this type of communication and collaboration among the organizations deal with emergencies in Turkey, it seems very weak. Maybe, each organizations individually tries to do their best, but it is still less than doing it together. It is urgently needed to construct the type of communication has been used in the USA in Turkey. The organizations in Turkey must spend their energies to establish networks in order to successfully manage the emergencies. On the other hand, they have to have qualified personnel who are well-trained and able to direct the communication among agencies during emergency situations.

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