



**Establishment of public health emergency information service system in medical libraries of China**

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**Abstract**

*In order to strengthen the ability of medical libraries to provide selective dissemination information service for public health emergency, public health emergency information service system should be established in medical libraries of China, which includes integrative information resources for medical professionals. Medical Libraries should take the responsibility to provide medical information service for public health emergency in the areas where they are located. Establishment of public health emergency information service system in medical libraries can improve their selective information dissemination service for policy-makers, scientific workers, healthcare professionals and the public by making use of the online update holdings with modern information technology.*

**INTRODUCTION**

The outbreak of severe acute respiratory syndrome (SARS) in 2003 in China not only caused a great loss of the life and property of the people, but also put the medical libraries into an awkward situation in dealing with such an emergency. The news media such as television, broadcast and internet played an important role in information announcement, delivery and feedback from the very beginning of the emergency. However, medical libraries which are responsible

for providing medical information service were in a passive position in gathering, analyzing and supplying information of SARS. In addition to the rare reports on such events, the main reason why medical libraries cannot meet the need of public health emergency information is the lack of a public health emergency information service system<sup>1</sup>. The state administrative departments and disease control and prevention centers at various levels have well prepared for the outbreak of avian influenza in China this year with their rich experience accumulated in SARS outbreak, but no effective measures have been taken in medical libraries to provide information service for public health emergencies.

Following are the main reasons why medical libraries cannot satisfy the need of public health emergency information. First, the operating mechanisms dealing with major public health emergencies are not perfect. There are no organizations and plans taking the charge of emergency control and prevention. The personnel who are engaged in information investigations do not know how to solve such problems and cannot provide sufficient information for decision-making leaders and departments as well as for medical researchers and clinicians. Second the channels for information exchange are impeded, leading to the infrequent information exchange between medical and hospital libraries as well as between hospital libraries themselves. The amount of information that can be shared by these libraries is rather scarce. Third, medical librarians are not eager to take the initiative both in providing information service for decision-making leaders and in keeping abreast of the update information. Fourth, medical librarians are less capable of processing information.

Since the outbreak of SARS and avian influenza, leaders at various levels in China have attached great importance to various kinds of infectious diseases, formulation of public health emergency control and prevention plans and corresponding laws. Medical libraries and information institutions should also ponder over the functions, scope, ways and orientation of their information service. They should draw lessons and acquire the successful experience from the public health emergencies that have occurred in China. Only by strengthening the infra-structure, improving the service environment, establishing and perfecting the public health emergency information service system, can medical libraries play an important role in coping with such major public health emergencies or events.

## **ESTABLISHING AND PERFECTING THE SUPPORT MECHANISMS AND PLANS IN MEDICAL LIBRARIES**

### **Strengthening the awareness and improving the ability of medical librarians**

At present in China, the development of most medical libraries and information

institutions with exclusion of the large medical libraries and information institutions above the provincial level is extremely unbalanced, which is manifested as the low level of modernization and automation as well as the different professional levels of medical librarians and informants. Hospital libraries are not very interested in collecting information of epidemic diseases and are not well prepared to take counter measures against epidemic diseases when they occur by using modern information technologies. Therefore, medical librarians should change their mode of thinking and strengthen their responsibility in providing the first-hand information or data. Leaders at various levels must make great efforts to reinforce the education of medical librarians in order to change their mode of thinking and to improve their professional level. In addition, the mechanisms of providing public health emergency information should be established, including organizations, professional informants and information processing plans, etc.

### **Keeping abreast of the update information of public health medicine**

Medical libraries should build the coordinate effort sense and play a leading role in providing the update information of major public health emergencies as on a single chest-board. They must keep in breast both of the advances in research of infectious diseases and of the information and tendency of newly-emerged epidemic diseases. They must try every possible means to collect, collate and analyze the related information or data on infectious diseases occurring over the world and in China and their epidemic tendency obtained from World Health Organization (WHO) or from various parts of China, and make regular information exchange with disease control and prevention centers at various levels in the whole country. They must know well the readers' needs and provide them corresponding information or data. Medical librarians should have a keen sense of observation and know beforehand what the readers need, so that before the occurrence of a public health emergency, they may have collected the information or data that are needed by the readers on a certain epidemic disease.

### **Strengthening network information service**

Effective, convenient and rapid information service is the key to the improvement of performance. Therefore, internet should always be in its operating state because medical experts in various fields have their academic workshop everyday and exchange their update information on it. Medical librarians must be good at finding out the update medical information or data from various databases on the internet and have a perspective and foreseeable sense when they are acquisitive of authoritative foreign medical databases in order to provide sufficient information or data of public health emergency. Medical libraries should also develop their own standard bibliographic

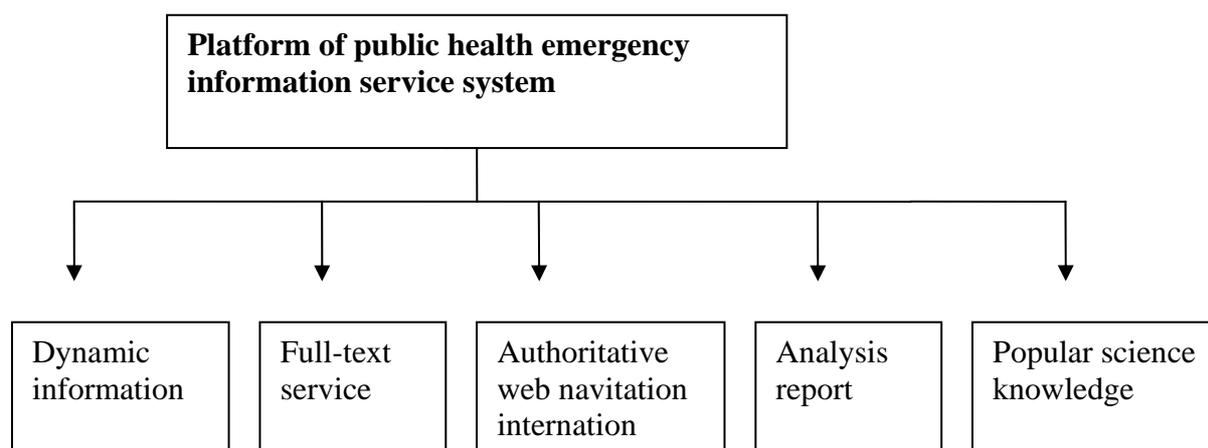
databases containing the update information or data on infectious diseases and their epidemic characteristics, special databases or network of infectious diseases and related diseases, as well as information navigation systems for easy access to information or data by corresponding experts.

### **Assigning experts for tackling the key technical problems**

Special experts and facilities must be assigned for tackling the key technical problems in medical libraries. Medical library staff members with rich experience in document acquisition and information retrieval should work on the investigation of epidemic situation and take the charge of development, analysis and utilization of medical information or data. Medical libraries should be equipped with necessary modern facilities for the experts to carry out research and develop special public health emergency databases which consist of evidence-based medicine data about different infectious diseases, experience and lesions obtained during the outbreak of public health emergencies, and research advances in epidemic diseases in order to further mine and analyze these data. At present in China, few such databases of public health medicine are available and therefore cannot meet the information need when public health events or emergencies occur. Further efforts should be devoted to the development of this kind of databases.

### **Establishing the support platform for the public health emergency information service system and defining the service items and scope**

Based on the past experience and lesions obtained during the outbreak of public health emergencies or events<sup>2</sup>, the support platform for the public health emergency information service system should be established in the light of different individuals who are going to be provided with public health emergency information service, such as decision-makers, scientific personnel and the public, whereas the service items and scope should be defined according to the different need of different users. Thus, the public health emergency information service system can initiate its operation to provide the comprehensive, dynamic and authoritative information or data as well as related information or data for different readers when a public health emergency or event occurs, which will bring the medical libraries into full play and show their social values. The block diagram of public health emergency information service system in medical libraries is shown in Figure 1.



**Figure 1** The block diagram of public health emergency information service system

### **Establishing information exchange channels between medical libraries And preventive medical institutions**

Since the literature and dynamic information data on preventive medicine are scarcely available in medical libraries, whereas the comprehensive literature is in sharp shortage in preventive medical libraries, resource-and technology-sharing between them is the best way to improve the information service for the scientific research persons.

Establishing the contact network between medical libraries and related experts is essential for medical libraries to provide the reliable information or data for medical experts, because through exchange medical libraries can know what information or data the medical experts need beforehand and can therefore provide the information or data in accordance with their specific need.

At present, research institutions of preventive medicine are widely distributed in China, some as an independent research institute, some as a laboratory in medical college or university, some as a section in hospitals. To know what problems they may encounter during their research and to provide the corresponding information or data they are thirst of, can speed up their research and may contribute to their achievement in scientific research. It is therefore quite necessary to establish the channels between medical libraries and preventive medical institutions<sup>3</sup>.

Medical libraries should establish epidemic situation information feedback channels with medical college or university, disease control and prevention

centers or epidemic prevention stations in the areas where are located, and ask for their opinions regularly and provide information service to the doorstep.

The establishment of public health emergency information service system is systemic engineering in the development of medical libraries. It not only strengthens the ability of medical libraries and experts to deal with public health emergencies or events and improves the information service of medical libraries, but also plays an important role in protecting the people's health and in promoting economic development of the country.

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