

# Research on the Sharing Platform of Residents' Electronic Health Records from the Perspective of "Internet + Residents' Health"

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**Abstract:** in July 2015, the State Council Issued Guiding Opinions on Actively Promoting the "Internet +" Action, Clearly Promoted the Development of "Internet +" Services on people's Livelihood and Promoted the New Mode of Online Medical and Health. Based on the Investigation of the Awareness Rate among Residents in the Grass-Roots Community, This Paper Makes an in-Depth Study on the Feasibility of Establishing a Sharing Platform on residents' Electronic Health Records by Using the "Internet +" Platform.

## 1. Introduction

Under the Background of the National Big Data Strategy, the "Internet + Health Service" Policy Guides the Information Construction of the Medical and Health System. General Secretary Xi Pointed out in the National Health Congress That "without the Health of the Whole People, There Will Be No Well-Off Society"; in the Report of the 19th National Congress of the Communist Party of China, he Mentioned That "people's Health is an Important Symbol of National Prosperity" and That Improving the National Health Policy and Providing All-Round and Full Life-Cycle Health Services for the People Are the Premise to Realize the Health of the Whole People. When Developing the Full Life-Cycle Health Services in China, the Main Problem is the Contradiction between the Unbalanced Development of Medical and Health Services and the Health Needs of the People. the Basic Policy to Resolve This Contradiction is to Focus on the Grass-Roots Level, Promote the Downward Movement of Health Services, and Transferring Resources to Rural and Urban Communities. Therefore, the Implementation of Basic Public Health Services is the Fundamental Way to Realize the Strategy of Healthy China.

In Order to Further the Study, Publicize and Practice Jinping Xi's New Socialist Ideology with Chinese Characteristics and Carry Forward the Spirit of the 19th National Congress of the Cpc, We Should Guide College Students to Practice the Socialist Core Values, Strive to Promote residents' Health Literacy and Health Awareness, and Implement the Strategies of Targeted Poverty Alleviation and Rural Revitalization. the Guidance of This Paper is the Common Health Problems of Residents; the Aim is to Promote residents' Health through Carrying out Health Education and Health Promotion, Providing Residents with Mental Health Intervention Services and Constructing the Informational Electronic Health Records for Them. This Paper Provides Scientific Basis for the Cultivation of residents' Health Consciousness, the Promotion of Their Health Levels and the Improvement of Their Life Qualities.

## 2. Residents' Health Records

The residents' health records are established by the community health service centres according to residents' health conditions. They record the health conditions of residents from birth to death, mainly including residents' medical history, diagnosis and treatment history, family medical history, physical examination results as well as the occurrence, development and treatment of existing diseases. The contents of residents' health records include basic personal information, health examination records, health management of key groups and other health service records. Specific contents of residents' health records are as follows.

First, the general medical and health files are divided into three parts, namely personal health files, family health files and community health files. Personal health records are frequently used in general practice and have the highest value.

Second, the family health records are established and used in different forms according to the actual situation.

Third, the community health records in general medical service do not have unified requirements. They are often used to assess doctors' understanding of residents' health conditions and resources in the community, and to examine the general practitioners' collective views in patient care.

### 3. Current Situation on the Construction of Residents' Health Records

In order to investigate the construction of health records for grassroots residents, this paper carried out a social research to investigate the construction of health records and the understanding of community residents. The data came from a national poverty-stricken county in Shaanxi Province. Through the investigation in surrounding villages of a subdistrict office, relevant information was collected. Researchers also carried out health education for the local people in the event square of this county.

160 questionnaires were sent out and 147 were recovered, of which 139 were valid.

#### 3.1 Research Results.

According to the questionnaire survey, 44% of the respondents in this survey are male; 56% are female. The range of age is between 40-70 years old. Illiteracy accounts for 54%; people with primary school education level account for 24.5%; people with junior high school education level account for 17.8%; people with senior high school education level account for 3.7%; people with junior college education level are none.

Table 1 the Education Background of Respondents.

education background	illiteracy	primary school	junior high school	senior high school	high	university
Percentage of population	54%	24.5%	17.8%	3.7%		0%

The education background of respondents

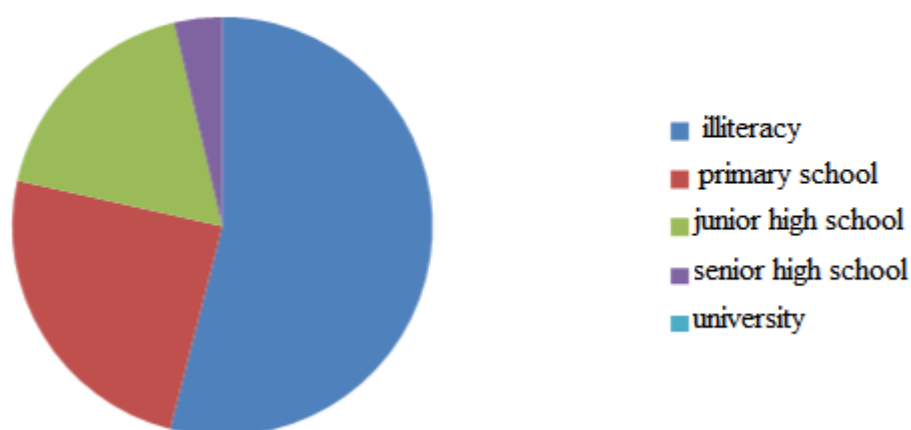


Fig.1 The Education Background of Respondents.

#### 3.2 Residents' Awareness of the Health Records

Most of the people have gained some understanding on residents' health records. In this survey, 61.25% of the respondents do not know the existence of residents' health files; 32.25% of them know the existence of residents' health files; 6.5% of them have residents' health files. But all the poor households have files; their files have detailed and complete information.

Table 2 Residents' Awareness Of Health Records.

Residents' Awareness of the Health Records	Do not know	know	Know and have the health record
Percentage of population	61.25%	32.25%	6.5%

#### 4. Market Analysis and Feasibility Analysis

In recent years, community health management has developed rapidly in China. But there are still some problems

First, at present in China, most of the electronic health records of residents are stored in community health service centres or township hospitals; the system of each hospital is not compatible with the electronic health records of residents. Therefore, the personal medical information of residents cannot be updated in time.

Second, the health records, electronic medical records, image reports and other kinds of health records of community residents lack continuity and unity. At the same time, the health records of residents are not updated and maintained regularly; the effect of health records can not be well reflected.

Third, residents' health management should be a long-term intervention process combined with prevention and treatment. However, due to the lack of a perfect dynamic tracking and evaluation mechanism, the health management plan has not been adjusted in real time according to changes of residents' physical health conditions and disease levels.

Therefore, it is an important challenge for the public health system to find out problems in the management of residents' health records and to use Internet technology to solve the problems of updating and compatibility. The establishment of residents' health records is an important part in the medical system reform for urban residents in China. It is a key measure of the state to realize the goal of health care for everyone. It is convenient for people to find, prevent, intervene and treat diseases early, and can improve the level of human health as well as the quality of life. It is also a strong basis for the implementation of various policies benefiting the people, such as subsidies, health care, medical treatment and applying for reimbursement, which includes free basic immunization for infants, free folic acid for pregnant women, and free regular visits for chronic patients.

Using Internet technology to build an "Internet + residents' health" electronic file sharing platform has following advantages.

First, it reduces the consumption of physical resources, expands the communication channels, and provides a more systematic way of management and viewing. People can better manage their health through the platform. Residents can access their own electronic health records through identity authentication and authorization. They can systematically and completely understand their health status in different life stages as well as the condition of health service utilization, accept health consultation services and guidance from medical and health institutions, and improve their health care awareness to actively identify and prevent health risk factors.

Second, the continuous accumulation and dynamic updating of electronic health records can help health service providers to grasp the health situation of service objects, timely find out important diseases and health problems, screen high-risk groups and implement targeted prevention and control measures, so as to achieve the purposes of prevention first and health promotion. The sharing of electronic health records based on informed choice will make it possible for residents to seek medical treatment and transfer medical insurance across institutions and regions.

Third, a complete electronic health file can provide all kinds of health statistics information based on individual cases timely and effectively, help health managers to objectively evaluate the health level of residents, the burden of medical expenses and the quality and health service effects, and provide scientific decision-making basis for regional health planning, health policy-making and commanding public health emergencies.

Fourth, it can improve residents' personal health awareness, helps them to improve their living habits and the quality of life. For example, the module of chronic disease management, a part of the

sharing platform, includes some diseases that are not infectious and last for a long time, like chronic kidney disease, hypertension, diabetes and so on. These diseases have similar characteristics. They are concealed and difficult to be cured completely, but they can be effectively controlled. The occurrence and development of these diseases are closely related to life style, so the treatment can not only rely on drugs. Patients also need to master the skills of changing life style, promote and improve their self-management abilities, so that they can acquire the knowledge of disease treatment and management, change the bad life habits, master the correct methods of taking medicine, so as to reduce risk factors of and save social health resources.

Fifth, the platform can popularize and push health knowledge. In our life, medical knowledge is disordered and it is difficult to distinguish true messages from the false, which inevitably leads to some wrong behaviours. In our country, many people lose their lives due to the wrong way of rescue. It is understood that due to the general lack of first aid knowledge, people in our country often have low self-help and mutual rescue abilities when encountering disasters and emergencies, which also causes a lot of avoidable casualties. In view of these situations, we need to take the excellent professional knowledge as the support, the push reliable and scientific knowledge about health, so as to avoid public panic caused by the prevalence of false information and the spread of unsubstantiated messages.

## 5. Conclusion

Residents' health records are systematic files composed of forms on personal basic information, physical examination results, clinical reception records, consultation records, transfer treatment records, and cards on residents' health information. It is a systematic file which records residents' health information, and an important tool for community health institutions to collect and record the health information of residents. It is an important guarantee for the smooth development of community health care activities, and can meet the needs of community residents on disease prevention, medical treatment, health care, rehabilitation, health education and fertility guidance. It is also an important guarantee for the provision of economical, effective, comprehensive and continuous health services for residents.

In China, the work of health services for community residents faces opportunities and challenges. The rapid development of Internet related industries provides new ideas and methods for the health work in communities. The "Internet + residents' health" sharing platform of electronic health records can help health centres to master the health status and disease of residents in the community, and help them to understand the epidemiological characteristics of main health problems. It also lays the foundation for screening high-risk groups, developing disease management mechanisms and taking targeted preventive measures. The community health service centres need to establish perfect health records for residents, strictly manage and effectively use these records, and carry out systematic and targeted community health services.

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