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ORIGINAL

PUBLIC HEALTH AND HEALTH MANAGEMENT IN THE FRAMEWORK OF "INTERNET+" DEVELOPMENT TRENDS AND CHALLENGES: IMPLICATIONS FOR ATHLETE PATIENTS

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ABSTRACT

Public health service is an inherent requirement to promote comprehensive development and is a standard for economic and social development. The Chinese Office of the State Office announced the "proposal to promote the sustainable development of the Internet technology medical health" "medical health application of Internet technology is beneficial to the intelligent management capabilities of medical and health care, enhance resource allocation, independent innovation services, reduce service efficiency, reduce the cost of service fees, to meet the growing number of the general public medical and health requirements. In the new socialist era, medical and health care has become the most important concern for social development and people, and "health for all" has become a strategy. In China's medical system reform for more than 40 years, the introduction of big data technology has also brought new changes to the medical field, which is expected to deal with the problem of "difficult and expensive medical care" and improve the allocation of medical resources, and the development of information technology is the trend of the whole industry. The paper focuses on the development of public health management methods and challenges within the framework of "Internet technology".

KEYWORDS: Internet+, health management, public health, development status, challenges faced

1. INTRUDUCTION

Information management is the main theme of social development in the 21st new century. Along with the rapid popularization of information technology, various fields are developing rapidly. The "Internet" is a new development measure that China has clearly proposed in recent years (Judy Xu & Yang, 2009). In general, it focuses on the popularization of the Internet in all sectors of society and promotes the development of various industries. In China's medical and health sector, government departments have enacted several existing policies to promote the process of big data in this sector, with obvious results.

The "Internet+" development trends have significantly transformed the healthcare landscape, offering innovative solutions for athlete patients. Firstly, the integration of internet technologies with healthcare systems enables seamless and efficient communication between athletes, healthcare providers, and sports organizations. This facilitates real-time monitoring of athlete patients' health parameters, such as heart rate, blood pressure, and training progress. Through wearable devices, athletes can transmit data to healthcare professionals, who can provide personalized guidance and intervention remotely. This interconnectedness promotes timely diagnosis, early intervention, and enhanced overall care for athlete patients.

Furthermore, the "Internet+" concept enhances accessibility to healthcare services for athlete patients. Telemedicine, a key component of the internet-based healthcare system, eliminates geographical barriers and enables athletes to consult with healthcare providers regardless of their location. Athlete patients can receive expert medical advice, rehabilitation programs, and exercise prescriptions without the need for physical visits. This flexibility is especially beneficial for professional athletes who frequently travel for competitions or training camps. By providing virtual healthcare services, the "Internet+" framework optimizes the management and recovery processes for athlete patients, minimizing disruptions to their training schedules and performance(Boni & Gunn, 2021). The State Office of the Central Office announced the proposal on promoting the development of "Internet health care", which gives specific development directions and countermeasures from three aspects, such as developing Internet health services, independently innovating Internet public health management, accelerating the sharing of medical service resources, improving the quality standard system of Internet medical services, improving supervision and management of treatment quality, and ensuring data information security (Elwyn et al., 2006).

"Internet" is a new way of Internet development under the environment of independent innovation 2.0. To put it simply, the concept is the combination of the Internet and other traditional industries. In contrast to traditional industries,

the medical device industry has a relatively high degree of specificity, diversity and "fault tolerance". As a result, promoting the development of "Internet health care" must be more specifically applied and guaranteed than many other industries developing "Internet", including strong support and protection from health experts. Figure 1 shows the medical ecosystem in China.

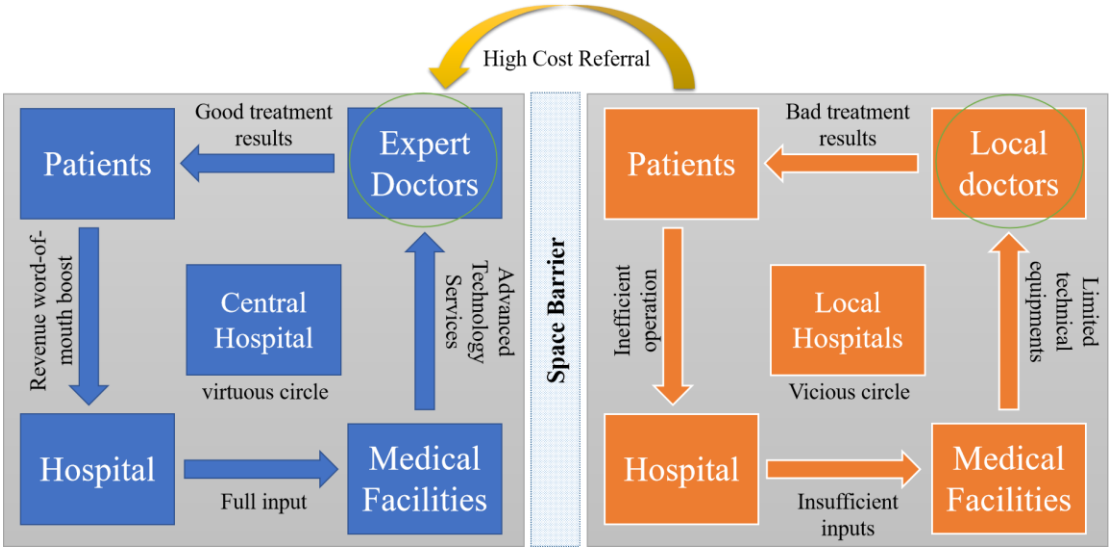

Figure 1. China's medical ecosystem map

2. THEORY AND METHOD

2.1 Current industry analysis report on public universal health management methods in China

2.1.1 The proportion of sub-health and chronic disease groups is relatively high

The rapid development of the medical treatment industry has ensured the physical and mental health of the people, but it does not mean that the conceptual situation of the people's health has turned better. Today's society has a very high level of medical care, but the physical condition of people is worrying. According to the relevant statistical analysis of the China Bureau of Statistics, in 2018, about 70% of office workers in metropolitan areas in China are in a sub health situation, which is an alarming figure. Sub-health is a physical state that is between health and disease. Generally speaking, people in sub health conditions are prone to illness, have a weaker relativity and their bodies lack essential nutrients (Wang & Hajli, 2017). In addition, 60% of young people working in big cities are overworked, and only 3% are truly healthy. Not only sub health, but also the percentage of people suffering from chronic diseases is increasing year by year. In 2018, the percentage of athlete patients with chronic diseases in our country was 20%. Chronic diseases are less harmful, but thus, people do not pay enough attention to them. According to the

survey, the cost of chronic diseases is twice as much as other diseases, which needs to trigger a great deal of attention. Figure 2 shows the ecological chain of treatment under the Internet model.

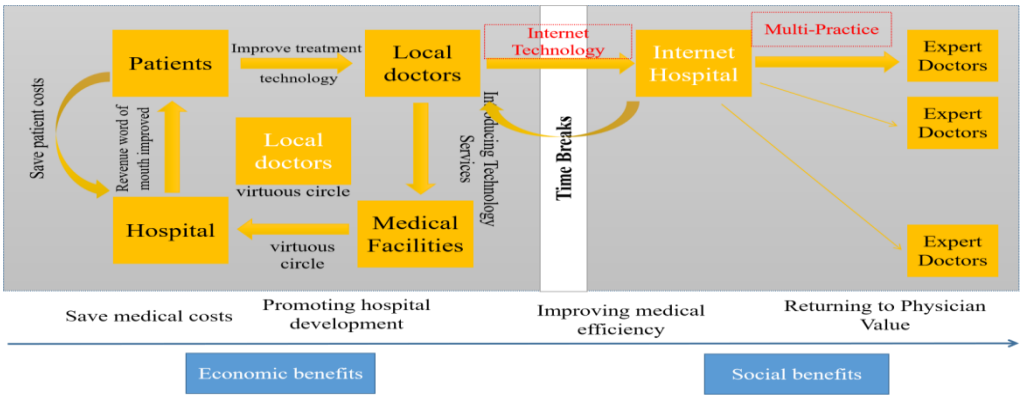

Figure 2. The medical ecosystem under the Internet model

2.1.2 The proportion of sub-health and chronic disease groups is relatively high

At this stage, the number of athlete patients with sub-health and chronic diseases is increasing year by year in China, and disturbingly, the 20 to 40 age group accounts for a larger percentage. In comparison, the treatment of the elderly is not optimistic. China has entered an aging population, which is putting tremendous pressure on the elderly healthcare industry. For example, Shanghai, Shenyang and Hangzhou are the metropolises with the most serious aging population. Benefiting from a well-developed health care management system, the health of the elderly is temporarily protected. However, in the more backward small towns, the poor level of economic development, the relative closed social status quo and the unsound health care services can have many negative effects on the elderly in their old age. The most important key encountered at this stage in our health care industry is the health protection of the rural elderly. Figure 3 shows the role of the health system.

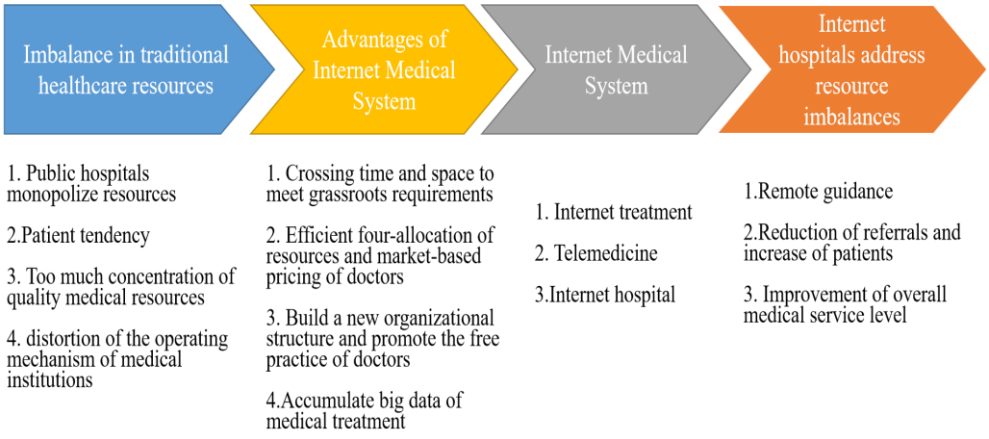

Figure 3. The role of the Internet healthcare system

2.1.3 The proportion of sub-health and chronic disease groups is relatively high

According to the survey, the entire medical and health care industry is less than 5% of China's GDP, which is far behind the capitalist countries in Europe and America. In addition, the complete social welfare system and medical insurance system of European countries are still difficult to reach in China. Therefore, from the overall development trend, China's medical and health care industry chain also has a long way to go to enter the forefront of the world. In order to complete the intelligence of the healthcare industry as soon as possible, and to popularize medical facilities in small towns, it is important to accelerate the basic construction of an information management medical system (Yang & Qi, 2022). How to combine with this excellent technology to complete the faster development trend is the key issue in front of China's health care industry managers at present.Figure 4 shows the total number of Internet hospitals in China.

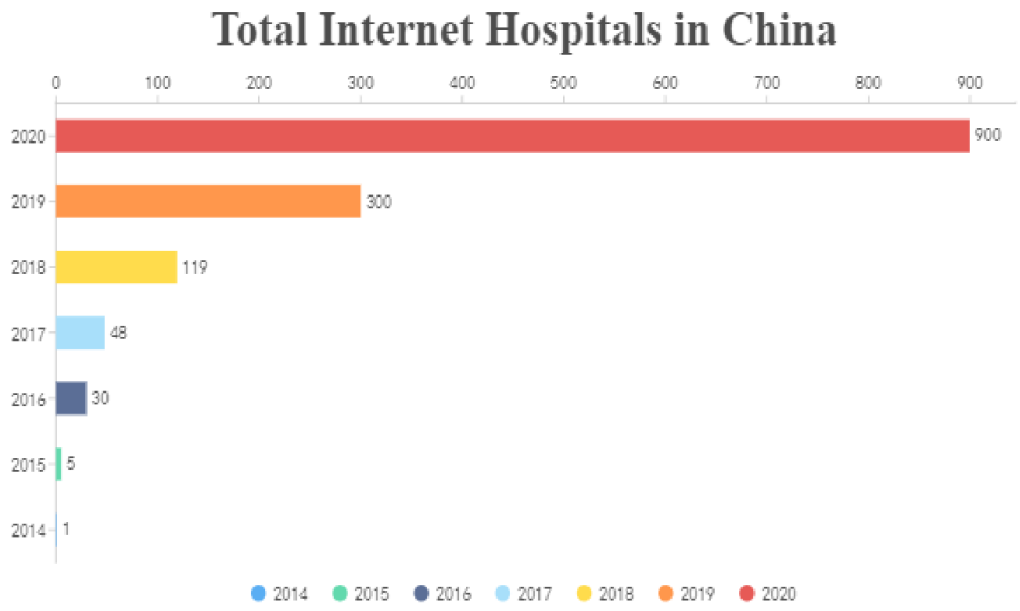

Figure 4. Total number of Internet hospitals in China

2.2 "Internet" and information technology drive the medical field

2.2.1 Hospital management benefits

Above all, the rise of "Internet" technology and information technology is beneficial to the management efficiency of hospitals, allowing them to provide stronger and more efficient medical services to the general public. Hospitals are the key to building China's medical industry. Investigating the development of medical and physical and mental health industries in each city, the most

important thing to look at is the level of medical care and quality of service in local hospitals. Hospitals have many employees and are managed as if they were a large corporation (El Samad, El Nemar, Sakka, & El-Chaarani, 2022). A more professional marketing team is necessary to carry out the management activities of various affairs, and the lack of management efficiency directly affects the daily operation of the hospital. Before the emergence of the "Internet", the leadership of the hospital was managed by human methods, and it was easy to have poor communication between matching units and long-term data processing methods. With the intervention of information technology, using big data and Internet technology, hospital managers can set up a corresponding platform management system. Table 1 shows a comparison of the current state of healthcare and the policy orientation of Internet healthcare.

Table 1. Comparison of the current state of healthcare and the policy positioning of Internet healthcare

Medical categories	Medical Status	Internet Healthcare
Important Policies	Guiding Opinions on Promoting the Construction of Graded Medical Treatment System", policies during the period of "three medical linkage	Opinions on Promoting the Development of "Internet + Medical Health"
Policy Positioning	Basic medical care, public medical care	Medical science, basic medical care
Development Direction	Committed to medical system reform, the ultimate goal is to solve the problem of "difficult and expensive medical care" through supply-side reform.	The ultimate goal is to solve the problem of "difficult and expensive medical treatment" through supply-side reform.
Specific measures	Reform the separation of medicine and propose a hierarchical diagnosis and treatment system.	Implementing Internet diagnosis and treatment mode, remote consultation mode, setting up Internet hospitals, increasing information communication between doctors and athlete patients, and allocating suitable medicine with online pharmacies.
Current policy effects	The effect of the "three-medical linkage" is beginning to show, but due to the monopoly of medical market sellers and the structural problems of medical services, it is difficult for consumers to get access to medical services.	In the exploration stage, it is an important supplement to the status quo of medical treatment, and the resource deployment capability of the Internet platform can be used in the future to promote In the future.

2.2.2 Convenient handling of the needs of household medical care

Under the influence of the "Internet" concept, a technological revolution is taking place in society, and all sectors are growing at their own pace with the

integration of online technologies. In the field of health care, in our country the progress is faster and the management system is now mature, but mainly in large cities. Take the example of Shenyang, the city with the most aging society in China, where the first smart medical service programs based on the Internet are taking place, greatly facilitating the daily medical visits and routine medical check-ups of the residents. The medical intelligent system creates information content information systems in hospitals and health care institutions, mainly through Internet technology, and connects with mobile terminals. Thus, when people generally have to accept medical services, they can book a variety of services by simply using a smart machine to perform the corresponding practical operations (Allam, Dey, & Jones, 2020). The establishment of the corresponding information-based urban medical and health care system software enables the masses to rely on their cell phones for the vast majority of procedures, greatly saving time, hospital and other health service efficiency. Table 2 is the Internet medical input-output index system

Table 2. Internet medical input-output index system

Internet medical input-output index system									
Input Indicators						**Output Indicators**			
beds	doctors	nurse	Expense	telemedicine support	Breadth	inpatient	Total revenue	Bed Utilization	Bed turnover rate

2.3 An Empirical Analysis of the Impact of Internet Healthcare on Medical Resource Allocation

This chapter certifies the actual effect of medical resource allocation of Internet healthcare based on empirical analysis. This section introduces and composes the basic principles of DEA model and constructs the Internet medical input-output evaluation index system on this basis (Mehmood & Graham, 2015). The second section constructs 2 empirical studies based on this system on the hazards of Internet medical technology consultation on hospital input-output efficiency and its importance in the construction of hospital departments. This section builds the Internet medical input-output evaluation index system based on DEA (data envelopment analysis) model. DEA method is based on the input-output indicators of evaluation and analysis, and linear programming method is selected to measure the relative efficiency and scale of operation. The way takes into account the independent variables of capital input per section (medical equipment, human resource management, capital allocation, technical capital input of Internet medical) and production targets (total number of athlete patient treatment, revenue, hospital bed utilization rate, hospital bed inventory turnover rate)) to get the input-output efficiency value of medical service items per section. This section details the basic principles of DEA model and establishes the index system of Internet medical input-output evaluation index system.

(1) CCR Model

The principle of the DEA efficiency assessment model in the CCR model is as follows: firstly, the decision unit is defined, and each evaluated objective is called a "decision unit". Let there be n decision units, and each decision unit has m_1 inputs and m_2 outputs.

$$X = \begin{bmatrix} X1 \\ X2 \\ \cdots \\ Xn \end{bmatrix} = \begin{bmatrix} X11 & X21 & \cdots & X1m1 \\ X21 & X22 & \cdots & X2m1 \\ \cdots & \cdots & \cdots & \cdots \\ Xn1 & Xn2 & \cdots & Xnm1 \end{bmatrix}$$

$$Y = \begin{bmatrix} Y1 \\ Y2 \\ \cdots \\ Yn \end{bmatrix} = \begin{bmatrix} Y11 & Y21 & \cdots & Y1m1 \\ Y21 & Y22 & \cdots & Y2m1 \\ \cdots & \cdots & \cdots & \cdots \\ Yn1 & Yn2 & \cdots & Ynm1 \end{bmatrix}$$

Equation 1. Principle of DEA Efficiency Assessment Model

where X_{ij}(i=1,2,...,n; j=1,2,..., m1) denotes the jth input of the ith decision unit and Y_{ij}(i=1,2,...,n; j=1,2,..., m2) denotes the jth output.
Defining the efficiency evaluation index, the efficiency evaluation index of the decision unit is:

$$e_k = \frac{U_T X_k}{V_T Y_k} \quad (k=1,\ 2,\quad n)$$

Equation 2. efficiency evaluation index

where u=(u1, u2, ..., um1) and v=(v1, v2, ..., vm2) indicate the spatial vectors of output and input weights. From the viewpoint of resource inputs, the efficiency evaluation is based on the delivery status of network resources under the current standard output rate criteria. This approach is called the "input-facing approach". However, the DEA efficiency evaluation model in CCR mode does not belong to the traditional linear programming problem, which cannot be solved directly, but needs to be linearized to take the dual problem solution, i.e., to the following model, the linear programming equation of CCR mode for evaluating the efficiency of decision unit k is:

$$\text{s.t} \begin{cases} \sum_{i=1}^{n} \gamma i x i \le OE \cdot Xki \\ \sum_{i=1}^{n} \gamma i y i \ge OE \cdot Xki \\ \gamma i \ge 0, i = 1,2,3, \quad ,n \end{cases} \qquad j = 1,2,3, \quad ,m$$

Equation 3. CCR model linear programming equation

where λ_i is the weight of the ith decision unit. The above equation represents the inputs and outputs of decision unit k as a linear combination of other decision units. If the output of some decision unit reaches the level of decision unit k, while the amount of input is as small as possible, the situation of $OE_k<1$ will occur, indicating the existence of resource waste. Conversely, if the decision unit is already the most efficient, then no decision unit can obtain the same or even more output using fewer inputs than it, at which point $OE_k=1$.

(2) BCC model

The difference between the BCC model and the CCR model is that the BCC model explores efficiency from the perspective of output, that is, comparing the effect of output at the same level of input, and this model is called the "output-oriented model". The result is "technical efficiency", and when DEA=1, the input-output model is called "technically efficient". The mathematics is as follows:

$$e_k = \frac{U_T Y_k - U_k}{V_T Y_k} \quad i = 1,2,3,\ldots, \quad n$$

Equation 4. Input-output model

After the model is constructed, TE_k can be solved similarly to the CCR model. combining the results of the BCC and CCR models, the efficiency values of the three dimensions of overall efficiency (OE_k), technical efficiency (TE_k) and scale efficiency ($SE_k=OE_k/TE_k$) can be finally obtained (Jie Xu et al., 2018).

Pay for scale analysis, Efficiency analysis consists of three main parts, namely technical efficiency (TE), scale efficiency (SE) and overall efficiency (OE).Technical efficiency analysis is assessed in terms of the operational efficiency of the target object; scale efficiency assesses the scale effect of the target object; and the combined efficiency is obtained by multiplying the values of technical efficiency and scale efficiency. For the above three efficiencies, if the efficiency value is equal to or close to 1, this study object is considered to have achieved DEA validity; if the efficiency value is much less than 1, this aspect of this study object is considered to have DEA invalidation. The relationship between the three is shown as follows:

$$OE = TE \bullet SE$$

Equation 5. Efficiency analysis of the three-part relationship

By solving the CCR model, the value of OEk can be derived, which is the result in the third column of Table 1; by solving the BCC model, the value of TEk can be derived, which is the result in the first column of Table 1; since the relationship between OE, TE and SE is known, Table 3 can be derived.

Table 3. Results of DEA model efficiency analysis

	Efficiency Analysis		
	Technical efficiency	**Scale efficiency**	**Integrated efficiency**
Decision Making Unit 1	TE1	SE1	OE1
Decision Making Unit 1	TE2	SE2	OE2
…	…	…	…
Decision Making Unit n-1	TEn-1	SEn-1	OEn-1
Decision Making Unit n	TEn	SEn	OEn

(3) Pay-for-Scale Analysis

The scale payoff analysis considers whether the scale of the research object is in a state of reasonable utilization. The scale payoff varies with the scale of production. The scale of production is more bellwether, the scale expands, and the input-output rate also expands. This kind of state is the scale payoff increase (Galletta, Carnevale, Bramanti, & Fazio, 2018). Table 4 shows the results of the scale payoff analysisWhen the production achieves the highest value, the production is positively correlated with the scale, and the object of exploration is to achieve the optimal production scale, fixed immobile scale payoff when the production scale is too large, then the production eases, and this kind of state is scale profitability decreases.

Table 4. Results of scale payoff analysis

Pay-for-Scale Analysis		
Decision Making Unit	Validity	Type
Decision Making Unit 1	…	…
Decision Making Unit 2	…	…
…	…	…
Decision Making Unit 3	…	…
Decision Making Unit 4	…	…

2.4 Internet diagnosis and treatment output rate operation mode

Along with the aging of society, the heavy burden of disease is becoming heavier and heavier. Regional hospitals have many problems such as insufficient technical and professional manpower and outdated treatment technology equipment, which cannot reasonably cover the daily tasks of diagnosis and treatment of major diseases. At the same time, athlete patients are transferred to hospitals across the country at high costs, further strengthening the herd effect and further aggravating the dilemma of regional medical resource imbalance. On the other hand, low- and middle-income athlete patients who cannot afford the cost of referral miss the most ideal time for treatment because they cannot get reasonable medical treatment, which has a negative impact on social stability and economic production.

The essence of the hospital is to deal with the issue of physicians getting medical resources, and to provide quality medical resources to local hospitals based on modern tele-education, tele-inspection, teleconsultation systems and other Internet health services. On the other hand, remote control access, remote control access, and remote clinic immediately overcome the problem of local diagnosis and treatment of major diseases, and gain the credibility and brand of local hospitals (Nazir et al., 2019). As a result, hospitals are able to slowly introduce the most advanced health services to cover more complex and diverse diseases and promote the sustainable development of local hospitals. Figure 5 shows the Internet medical help model.

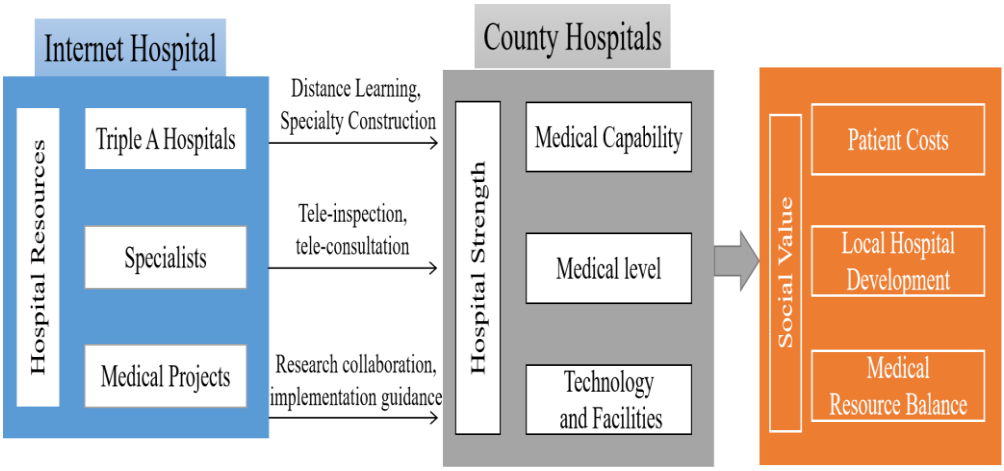

Figure 5. Internet medical help model

2.5 Internet medical development motivation analysis

The Internet is not only conducive to dealing with the misconceptions of supply and demand at this stage of the diagnosis and treatment situation, but also plays a more important role in the implementation of the hierarchical diagnosis and treatment system and the efficiency of the medical industry. As the core area of the rational layout of medical resources, the Internet helps hospitals pay more attention to the level of medical care and service, and reduces the cost of hospital operation and management with precise and fine cost control (Golfarelli & Rizzi, 2020). Finally, reducing management costs, generating medical resources supply chain management, and basic construction information management system are beneficial to the relative saving of the general public's consultation and treatment cost fees, and finally relieving the pressure of medical insurance work, and to a certain extent, reducing the pressure of medical insurance management cost work brought by the aging of society and keeping the medical insurance fund balanced. Figure 6 is the framework for analyzing the principal-agent relationship of Internet healthcare.

The Internet reconfigures the consultation method, correctly guides athlete

patients to effective consultation and prevents the consumption of medical resources. It is highly recommended for physicians to practice multiple points and consult online, which enhances doctors' welfare, is beneficial to the implementation of the hierarchical diagnosis and treatment system, and improves high efficiency.

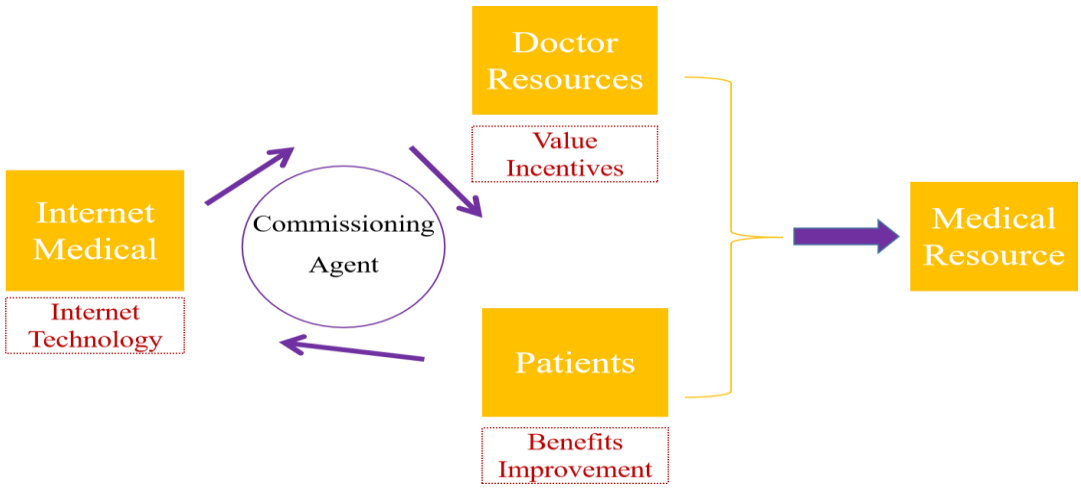

Figure 6. A framework for analyzing the principal-agent relationship in Internet healthcare

3. SOLUTIONS

3.1 Basic construction concept of "Internet" medical system

3.1.1 People-friendly health care

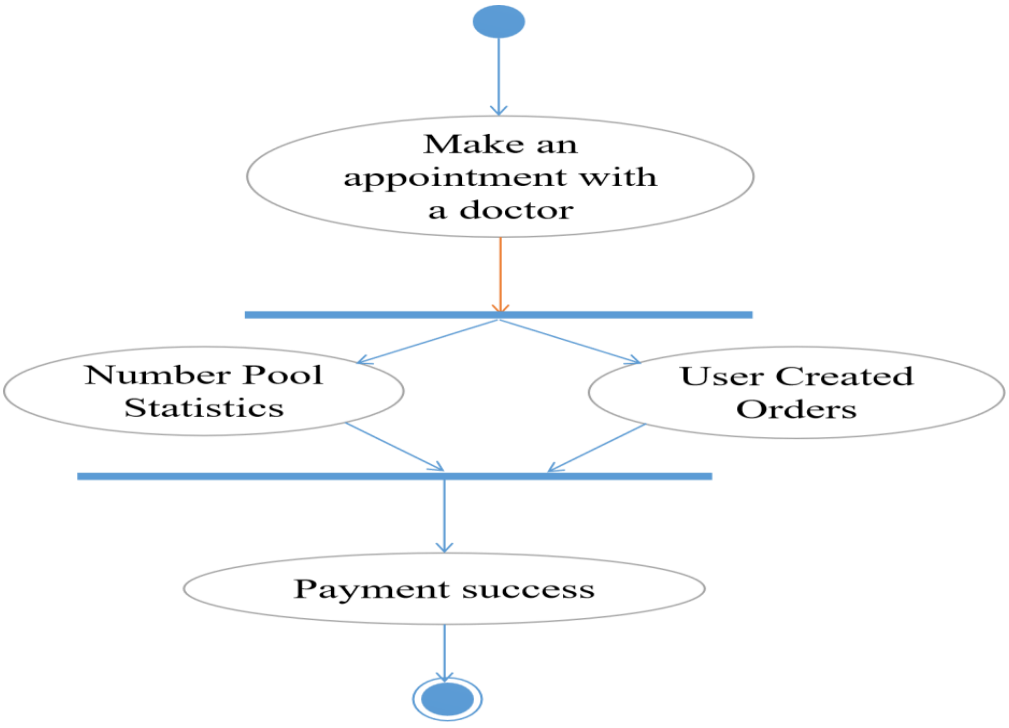

Figure 7. Information-based one-stop service system for medical and health care

The integration of "Internet" technology to build a more beneficial health care management system is the key development prospect of China's current health care industry. The actual construction aspect contains electronic case, file system, online public health service consultation, intelligent medical service project, online drug supervision and management service, etc (Singh, Singh, & Sisodia, 2019). Among them, the most important one is the establishment of online health management files for citizens, which makes it easier for doctors to understand the health status of athlete patients and clearly propose targeted recommendations and countermeasures when conducting medical examinations. Secondly, to improve the city's big data physical and mental health management system, the establishment of information management one-stop medical and health service management system. Such as in cell phone APP, WeChat official account and other platforms to give online medical consultation, information, health insurance inquiries and other services. Figure 7 shows the information-based one-stop service system for medical and health care.

3.1.2 Medical wisdom

Treatment wisdom is the introduction of new construction specifics in China's health care sector in recent years. It has been marketed and promoted in a number of large and medium-sized cities, with excellent feedback from residents and generally five-star reviews from the public. Intelligent is by the Internet technicality will be physicians, athlete patients, medical machinery and other aspects of the combination together to give stronger, more convenient health services. First and foremost, it is imperative to create intelligent medical care with the help of the information technology of the city's health data. Thus, the corresponding city should first collect and summarize information and create an online data service platform (Brunetti, Carnimeo, Trotta, & Bevilacqua, 2019). At the same time, the medical association is carried out to complete the overall linkage of major health sites. Figure 8 shows the scope of smart medical care in China.

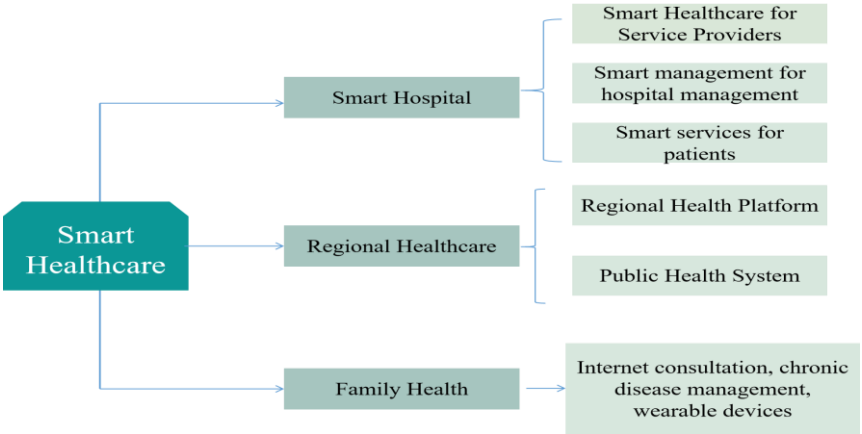

Figure 8. Scope of Smart Healthcare in China

3.1.3 Basic construction of public environmental health information technology

Public health management is an important indicator of the level of urbanization intelligence. Therefore, the establishment of a public health system can not be delayed while carrying out the construction of medical and health information technology (Mabrouk, Dahou, Elaziz, Díaz Redondo, & Kayed, 2022). Public health management generally includes disease prevention and control, health education knowledge for all, food hygiene safety, public health management, etc. In the context of the "Internet technology" era, it is necessary to promote the full range of informationization of urban public health services in China to better ensure the health of residents. Figure 9 shows the information construction of public health.

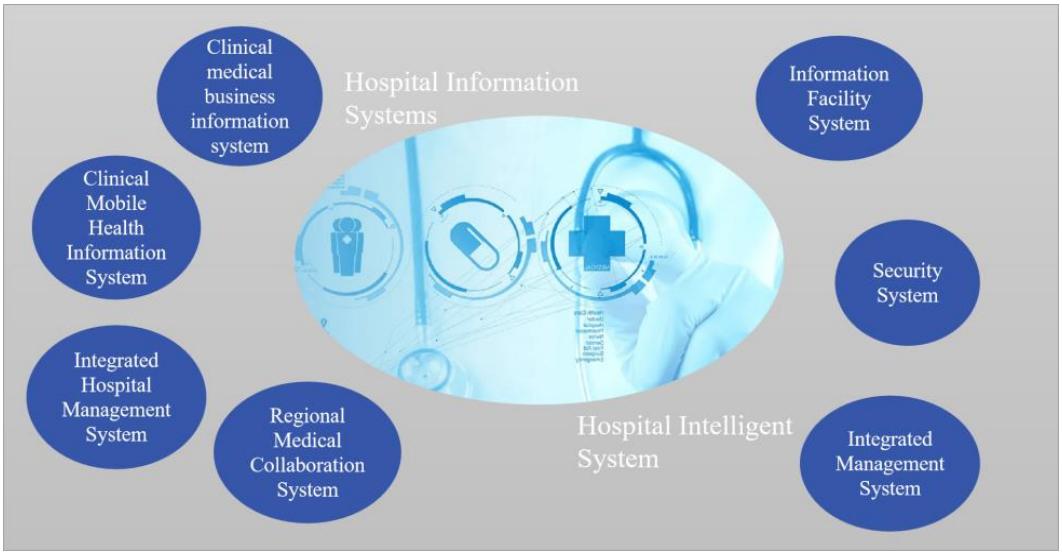

Figure 9. Informatization of public health

3.2 "Internet health management method industry" innovation needs to enhance the talent guarantee

To promote the rapid development of Internet health management methods, Internet is the procedure process, form and way, and medical health is the physical line, content and destination. To enhance the training of Internet medical and health talents, we must cultivate excellent health talents with network thinking vision and Internet technology ability under the premise of enhancing the training of traditional health talents (Domingues et al., 2020). Thus, it is proposed to stimulate the creation of a medical health education cloud platform to give diversified online courses in medicine and clinical medicine. Build digital, intelligent, humanized and lifelong clinical medicine management system, execute "universalized continuing medical education consistent with technical" behavior that stimulates medical and nursing staff to discuss and communicate about difficult diseases and serious illnesses and

difficult cases, and expand technical and professional quality training, and closely focus on the requirements of environmental health precision poverty eradication, with the bottom and Focus on poor mountainous areas, according to modern distance education implementation.

Treatment information technology personnel construction to "health care" as the leading, environmental health professionals as the focus, shaping skilled use of information technology skills of professionals and professional management personnel, in order to truly complete the "cultivation of talent for health care, information for health care service projects (McKinney et al., 2020). The goal of the project is to "cultivate talents for health care and provide information for health care services". Another key talent guarantee that is urgently needed for "Internet technology for medical health" is artificial intelligence talent. The development and design of clinical diagnosis and treatment information processing systems based on artificial intelligence, intelligent medical identification of images, pathology categorization and multidisciplinary consultation, and the use of its intelligent voice technology in various medical and health scenarios are explicitly pointed out. Carry out the mobile medical model based on artificial intelligence applications and medical and health intelligent products to complete real-time detection and assessment of personal health, early warning information of diseases, screening of chronic diseases and proactive intervention. Artificial intelligence technology will play an increasingly important role in aiding diagnosis, optimizing algorithms and data capabilities, and accelerating the construction of Internet healthcare. Improving "AI technology for health care" clinical medicine and personnel training has become a top priority. Figure 10 shows the talent development system.

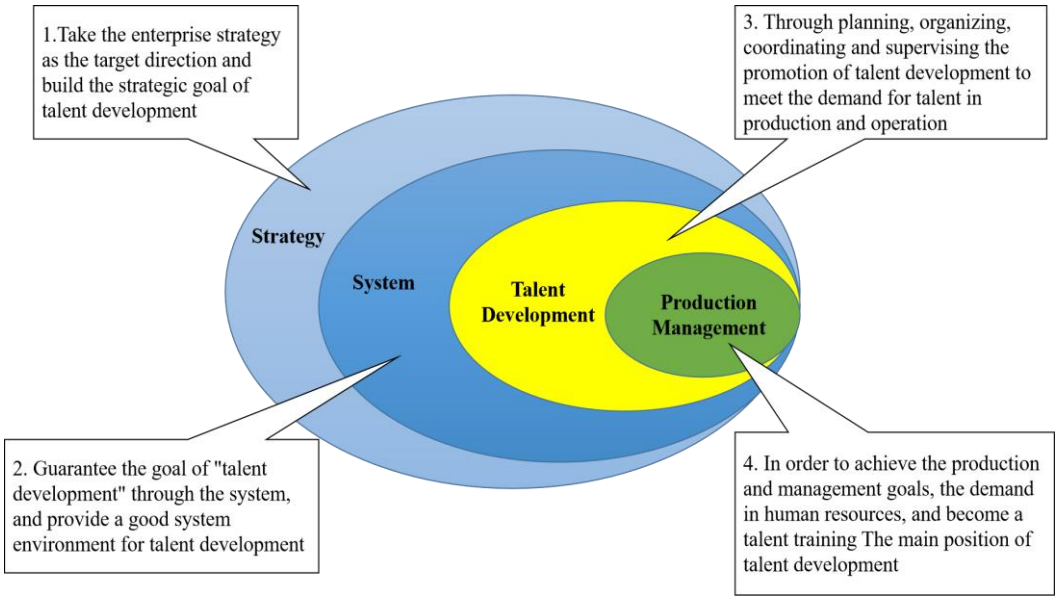

Figure 10. Talent Development System

3.3 "Internet technology" environment to promote the effective measures of information technology in the health care industry

3.3.1 Increase collaboration between the medical industry and high-tech enterprises

In the case of social health system software information management, the lack of technology is particularly prominent. Therefore, local municipal governments should attach great importance to cooperation with the medical and health care industry, especially major hospitals and local high-tech enterprises, to learn to train more advanced management methods, the introduction of more advanced medical equipment, and accelerate the pace of information technology planning (Ragab, Sharkas, Marshall, & Ren, 2019).

3.3.2 Pay high attention to the education of comprehensive medical science talents

All-round quality education is the work of in-depth promotion in the field of education in China in recent years. As a gathering place for talents, higher education institutions are the most important industrial bases for training pharmaceutical talents. And, the shortage of talents in this industry in China in recent years must cause the high attention of the Education Bureau.

On the one hand, we are increasing the introduction of talents, and on the other hand, we attach great importance to the improvement of comprehensive capabilities of medical science personnel. Along with the informatization of the health care medical industry, the current stage stipulates that medical personnel should not only have the corresponding medical expertise, but also need to understand a variety of contemporary Internet technologies and today's medical devices, and the competition in the talent market in this industry will be even more fierce in the future.

3.3.3 Create a more modern health care medical tracking service management system

In recent years, along with the maturity of various big data technologies and the synergistic development with the health care industry, the information planning in China's health care industry has long been perfected, which gives us solid items to move to the next stage of intelligent construction. Creating a more modern health care tracking service management system is the latest overall goal of China's health care industry. According to this basic construction, the one-stop health service for Chinese citizens will be completed in all major cities in China, and closely integrated with other industrial chains such as entertainment and leisure, and elderly services. This will increase the quality of life of the masses (Li et al., 2018). Figure 11 shows the framework of input-output analysis of healthcare resources.

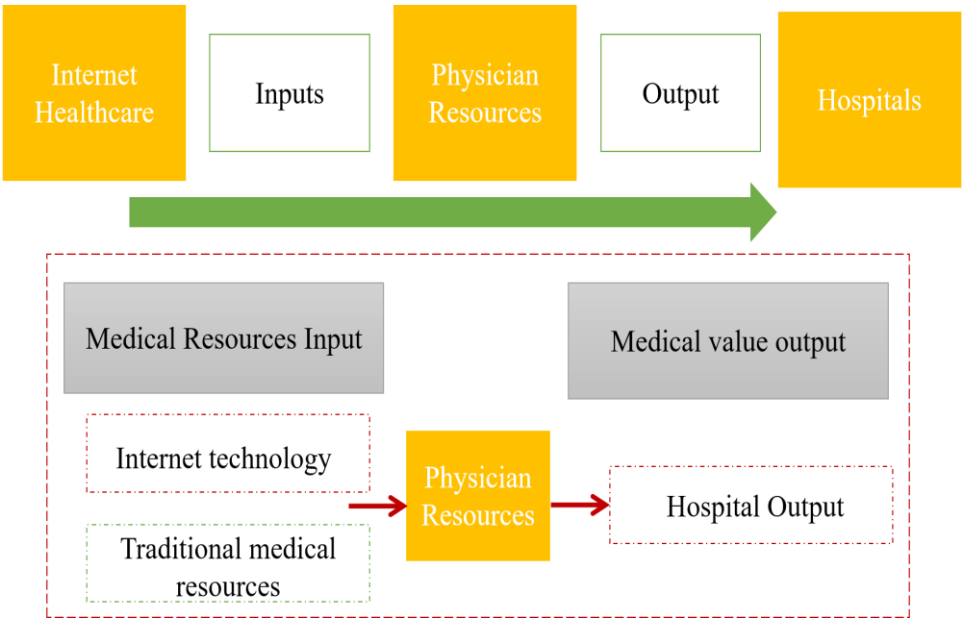

Figure 11. Medical resources input-output analysis framework

3.4 Convenience of "Internet Health Services" at your fingertips

3.4.1 Independent innovation of "Internet" public health service services

Promote quick access and standardized use of the household record system. Pay close attention to high blood pressure, diabetes, etc. Enhance online service management methods for chronic diseases of the elderly. Optimize the current vaccination information service platform to enhance vaccination services, focusing on children included in the national immunization plan. Stimulate the application of smart wearable devices to obtain vital signs data and give health testing and management for maternity. Strengthen information management methods, follow-up assessments and categorization interventions for athlete patients with acute and critical mental disorders (HUANG, Ke-Xue, Yi-Ying, & Ya-Ling, 2020).

3.4.2 Enhancement of "Internet" family physician services

Accelerate the intelligent information and data platform and application of family physician services, strengthen the support for the underlying services of higher-level hospitals, and explore the online audit and incentive system for the service level, service quality and efficiency of family physician teams. Incentivize the online signing and filing service, and give health management consultation, medical consultation booking, chronic disease follow-up, health service, and increase of prescriptions for signed households in online service.

3.4.3 Improving "Internet" drug supply guarantee services

Online prescriptions for common diseases and chronic diseases are approved by licensed pharmacists, and the medical treatment and

pharmaceutical industry can authorize the commissioning of qualified third-party distribution. Explore data sharing and instant sharing of information on medical prescriptions and drug retail transactions, and promote the development trend of drug network sales and pharmaceutical logistics and transportation standardization (FRICKE, 2017; Nagarajan & LD, 2019).

3.4.4 Promote "Internet" medical insurance payment services

Accelerate the integration of basic medical insurance information systems, complete the sharing of basic medical insurance information with relevant departments, gradually expand the Internet payment function, and promote "one-stop" payment. Once again, the scope of designated medical treatment on the Internet will be expanded, and a large number of primary medical treatments will be included in the direct settlement of foreign medical insurance. Vigorously implement the intelligent monitoring of medical insurance, and incorporate the standards of medical treatment, safe drug use, and payment policies into the hospital outpatient information system software to strictly monitor medical practices and costs.

3.4.5 Marketing and promotion of "Internet" artificial intelligence technology services

To carry out mobile medical model based on artificial intelligence applications and health care intelligent products, to complete real-time detection and assessment of personal health, early warning information of diseases, screening of chronic diseases and proactive intervention.

4. CONCLUSION

All in all, compared to the online approach in the state of diagnosis and treatment, the Internet medical platform is a bit clearer and has a wider audience at the level of medical information publication. At this stage, the information of the medical model is mainly published through public notice boards and other means. Internet medical platforms are able to obtain information about doctors in one hospital or several hospitals at will within a platform, and according to the search thesis can also find the research area in which the doctor specializes. It is also possible to choose a doctor immediately based on precise information. The increase in choice is beneficial for improving customer influence, strengthening the arbitrary choice of physical models and precise information, improving athlete trust, and benefiting the smooth flow of consultation and treatment. They can also choose a more appropriate platform based on the information published and their preferences. The most suitable doctor will accept the doctor's advice and actively treat them in the most suitable hospital.

In the environment of "Internet technology", the basic construction of

information technology for medical services in China is booming. Although the level of information technology in many small cities and rural areas is still not enough, but the performance in China's technology development trend is not less hot. In the future, the establishment and improvement of health information systems and Chinese citizens one-stop physical and mental health service support system software, China will complete the information technology of the entire medical and health care industry.

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