

# Regional Differences in Medical Resources and the Impact of Psychological Factors on Life Expectancy in China

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## **Abstract:**

Health for individuals, not only refers to physical health, but also includes mental health. Mental health has a great impact on a person's life and work. More attention should be paid to people's inner world. The COVID-19 pandemic has laid bare the problems of global public health governance. It is the consensus of mankind to strengthen international cooperation and jointly solve the difficult problems of global public health governance. The uneven distribution of medical resources in China has become an important problem affecting people's life span. Exploring regional differences of high-quality medical resources is of great significance for formulating reasonable medical and health policies and promoting healthy China strategy. Life expectancy is influenced by many factors, such as health care, economic development and psychological factors. Based on panel data of provinces, spSS25.0 software was used to analyze regional differences of medical resources in China from 2015 to 2017, and regression analysis was conducted on influencing factors of life expectancy. This paper analyzes the influence of psychological factors on life expectancy on the basis of previous studies. Factors affecting life expectancy were selected according to timeliness, scientificity, representativeness and dynamic characteristics. The study found that the eastern region has a high level of medical resources, and economic construction and green development have a significant impact on life expectancy. Low mood, loneliness, health satisfaction and life satisfaction can affect people's cognition, as well as their mood, behavior and health. To further optimize global public health resources, we need to carry out joint international prevention and control efforts and strengthen coordination among countries and regions. The hospital bed resources of primary medical service institutions should be rationally allocated, policy support should be given to institutions with insufficient resource allocation, and investment in public medical resources should be increased according to the level and functional characteristics of public medical institutions. Mental health will have a positive impact on life expectancy. It is necessary to increase mental health education in compulsory education courses and form a virtuous circle of mental health service system and institutional participation.

**Keywords:** Medical resources, Economic development, Psychological health, Life.

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## I. INTRODUCTION

After the global outbreak of the new crown epidemic, the global public health governance problems exposed by countries (or regions) throughout the world in the process of responding to the epidemic indicate that mankind needs to jointly promote the construction of a "community with a shared future for mankind" in thought and action; and with this important idea To lead, enhance international unity and cooperation, overcome many problems in global public health governance, and work together to build a beautiful home<sup>[1]</sup>.

In the face of the new crown epidemic, the Chinese government has always put the people's life safety and health first. It would rather pay a huge economic and social price, and still resolutely and promptly adopted strict measures such as "closing the city", "isolation", "stopping production", etc. Prevention and control measures have thus brought the epidemic under control in a relatively short period of time <sup>[2]</sup>. The World Health Organization believes that China has adopted a "government and society strategy" and "China's successful joint prevention and control experience is worth learning and learning from the world." Not only that, but China is also in a professional and responsible spirit to maximize the role of medical and health experts and other professionals in the decision-making of epidemic prevention and control <sup>[3]</sup>.

At a press conference held in Wuhan, Hubei Province, the National Health Commission, proposed: From "static management" to "dynamic management", from "national unified requirements" to "divisional classification", from "social prevention and control" to "precise prevention and control", higher requirements are put forward on the health system <sup>[4]</sup>.

Health is the basic human right of everyone, and increasing the average life expectancy as much as possible is the most important social goal in the world <sup>[5]</sup>. Increasing life expectancy is inseparable from the development of medical services. The allocation of public medical resources in Shanghai is mostly concentrated in large and medium-sized secondary and tertiary hospitals, while the grassroots communities lack resources. Allow low-income groups to get medical treatment under the condition of limited economic capacity, and at the same time, allow limited public medical resources to better exert social and economic benefits while meeting the basic medical needs of residents, and to achieve a balance of public medical resources Allocation is an important issue that cannot be avoided in building a harmonious society. Beijing is not only a political center, but also an economic and cultural center. High-quality medical resources are relatively concentrated, attracting patients from all over the country, especially Hebei and Tianjin, to come to Beijing for medical treatment <sup>[6-7]</sup>.

At present, the international community has made great progress in the research of medical fairness theory, forming a series of theories such as utilitarian ethics, egalitarian distribution theory, radical liberalism theory, and communitarian theory <sup>[8]</sup>. A large number of studies have been conducted in the areas of facility accessibility, medical service unfairness, medical resource allocation and its influencing factors. Most studies have analyzed different groups such as women, local residents, and marginalized groups from a single scale such as country, city, and community. The difference in demand for medical services has

studied the influence of factors such as city size, traffic conditions, population changes, and residents' income levels on regional differences in medical resources. The relevant research of domestic scholars mainly focuses on the accessibility and allocation of medical service facilities, the regional differences in the level of medical resources, the evaluation of medical service supply efficiency, and the influencing factors of regional differences in medical resources<sup>[9]</sup>. Starting from the reform background, using methods such as Gini coefficient, GIS spatial analysis, location allocation model, multiple linear regression model, etc., it analyzed the allocation of basic medical resources and the accessibility of medical facilities at different levels in the city, province, and country<sup>[10]</sup>. The study found that urbanization Factors such as population density, economic development level, education level, and aging affect the distribution of medical resources. The combined effects of historical factors, market economy factors, government factors and medical system factors also have a greater impact on the allocation of medical resources. On the whole, existing studies focus on regional differences in basic medical resources, and there are few related studies on high-quality medical resources; and existing studies are mostly limited to a single scale, and seldom discuss the regional differences and impacts of high-quality medical resources from multiple scales. In addition, existing studies mostly use linear regression models to analyze the factors that affect the distribution of medical resources, and pay less attention to the interaction between different influencing factors on the distribution of high-quality medical resources. In view of this, this article uses Spss to analyze the differences in the distribution of medical resources in China from the provincial and municipal scales. EvIEWS multiple regression analyzes the impact of multiple variables on the average life expectancy, aiming to formulate scientific and efficient medical and health service policies. Promote the sinking of high-quality medical resources, and provide reference for the sharing of high-quality medical resources.

In summary, this article proposes the following hypotheses:

H1: Medical resources have an effect on average life expectancy.

H1a: The level of economic development has an effect on the average life expectancy.

H1b: Green development has an impact on average life expectancy

## II. MATERIALS AND METHODS

### 2.1 Evaluation Index Selection

Independent variable medical resources include 5 indicators, the number of professional physicians (person), the number of beds in medical and health institutions (10,000), the number of tertiary hospitals, the number of hospital admissions, and the per capita medical expenditure (yuan), as shown in TABLE I. Regional differences in medical resources can be analyzed from multiple angles. Using the number of tertiary hospitals, the number of professional doctors and the number of beds in medical and health institutions can analyze the difference in the development scale of the regional health industry, using the distribution density of medical staff and the number of beds can reflect the fairness of regional allocation

of health resources; using per capita medical expenditure and hospital admissions Regional medical service level. The regulatory variable green environmental protection includes two dimensions, economic development and green development, with a total of 5 indicators, and the dependent variable is one indicator of the life span of each province.

The data comes from "China Statistical Yearbook", "China Health Statistical Yearbook", "Jiangsu Provincial Statistical Yearbook", "Anhui Rural Statistical Yearbook", "Chongqing Statistical Yearbook", "Shanghai Statistical Yearbook", etc.

**TABLE I. Index system.**

<b>Dimension</b>	<b>index</b>
medical resources	Number of professional physicians (person)
	Number of beds in medical and health institutions (ten thousand)
	Number of top three hospitals
The level of economic development	Number of admissions
	GDP per capita (yuan)
	Per capita disposable income (yuan)
ECO development	Sulfur dioxide emissions (10,000 tons)
	Industrial wastewater discharge (10,000 tons)
	Comprehensive utilization of solid waste (10,000 tons)

## 2.2 Analysis of Influencing Factors

Use SPSS23.0 to conduct statistical analysis from the allocation of primary medical resources in my country.

### 2.2.1 Factor extraction

According to the principle that the eigenvalue is greater than 1, this paper finds two common factors, the cumulative variance contribution rate after rotation is 94.861%, and the variance contribution rates of the two common factors are 73.536% and 21.325% respectively, which shows that the two selected in this article The eigenvalues of the common factor already contain most of the information, as shown in TABLE II.

**TABLE II. Factor analysis eigenvalues and variance contribution rate.**

ingredient	Initial eigenvalue			Rotating load sum of squares				
	total	Variance %	Accumulation %	Variance %	Cumulative %	total	Variance %	Accumulation %
1	3.677	73.543	73.543	73.543	73.543	3.677	73.536	73.536
2	1.066	21.318	94.861	21.318	94.861	1.066	21.326	94.861

The common factor 1 has a large load on the variables of the number of professional doctors (persons), the number of beds in medical and health institutions (10,000), the number of tertiary hospitals, and the number of hospital admissions, that is, these variables have a greater impact on the common factor 1. According to these variables This article defines this component as the "quantity factor of medical personnel and medical institutions"; and the per capita medical expenditure variable has a load of 99.2% to the common factor 2, so this variable is classified into one category according to its nature Name it "quantity factor of medical expenses" According to the principal component analysis model and factor loading, the linear combination expression between the principal component and the original 5 variables can be obtained as follows:

$$Y_1 = 0.268X_1 + 0.266X_2 + 0.246X_3 + 0.262X_4 + 0.005X_5$$

$$Y_2 = 0.026X_2 - 0.088X_2 + 0.217X_3 - 0.128X_4 + 0.931X_5$$

### 2.2.2 Comprehensive score

From the known factor scores, the comprehensive score of primary medical resource allocation efficiency can be calculated, and the comprehensive score Y is the ratio of the weighted sum of the variance contribution rate of each common factor characteristic value and the product of the factor score to the cumulative variance contribution rate, namely:

$$Y = (Y_1 * 0.73536 + Y_2 * 0.21325) / 0.94861$$

Finally, a comprehensive score table (TABLE III) is obtained, as shown below.

**TABLE III. Comprehensive score.**

area	Common factor 1	Common factor 2	overall ratings	area	Common factor 1	Common factor 2	overall ratings
Beijing	-0.400	3.952	0.578187	Hubei	0.816	-0.258	0.574275
Tianjin	-1.015	1.127	-0.533561	Hunan	0.896	0.217	0.743668
Hebei	0.694	-0.527	0.419356	Guangdong	1.904	0.075	1.493113

Shanxi	-0.357	0.058	-0.263720	Guangxi	-0.022	-0.988	-0.239465
Inner Mongolia	-0.578	-0.113	-0.473382	Hainan	-1.321	-0.109	-1.048155
Liaoning	0.407	0.863	0.509642	Chongqing	-0.496	0.564	-0.257524
Jilin	-0.613	0.291	-0.409528	Sichuan	1.780	-0.086	1.360456
Heilongjiang	-0.076	0.279	0.003401	Guizhou	-0.371	-0.228	-0.338819
Shanghai	-0.649	1.760	-0.107910	Yunnan	-0.054	-0.815	-0.225162
Jiangsu	1.511	0.370	1.254689	Tibet	-1.529	-1.423	-1.505126
Zhejiang	0.812	0.317	0.700979	Shaanxi	-0.231	-0.387	-0.266136
Anhui	0.129	-0.471	-0.005984	Gansu	-0.763	-1.035	-0.823796
Fujian	-0.378	-0.250	-0.349059	Qinghai	-1.375	-0.772	-1.239782
Jiangxi	-0.214	-0.213	-0.213610	Ningxia	-1.367	-0.409	-1.151743
Shandong	2.029	0.066	1.587951	Xinjiang	-0.624	-0.500	-0.596083
Henan	1.454	-1.353	0.822840				

### 2.2.3 Factor analysis precondition test

This paper uses SPSS23.0 software to perform KMO test and Bartlett sphere test on the data, and the following test results are obtained: The KMO value is 0.779, which is greater than 0.5, indicating that it is suitable for factor analysis; the observation value of Bartlett's sphere test statistic is 223.665, The corresponding Sig value is 0.000, which is less than the significance level of 0.05, which shows that the variables are both independent and relevant. At the same time, this article obtained the results of the common degree of the five original variables, and found that 96.9%, 97.5%, 85.8%, 95.7%, and 98.5% were extracted from the five variables, which were all above 80%. The results showed that most of the information of the original variables It can be extracted by factors, and the variables of factor analysis have a high degree of commonality, so it is effective. Therefore, the factor analysis of the original data in this paper is credible.

According to the above method, the indicators of each province in 2015 and 2017 are analyzed and calculated, and their comprehensive scores in 2015 and 2017 are obtained. By summing up the comprehensive scores of these 3 years, we can get the comprehensive evaluation index of the overall competitiveness of each province in the past 3 years, and rank the competitiveness of each province <sup>[11]</sup>. The analysis results are shown in TABLE IV.

**TABLE IV. Comprehensive evaluation index scores from 2015 to 2017**

area	Cumulative					Cumulative				
	2015 year	2016 year	2017 year	composite score	total ranking	2015 year	2016 year	2017 year	composite score	total ranking

Beijing	0.578	0.128	0.674	1.381	8	Hubei	0.574	0.127	0.529	1.231	9
Tianjin	-0.534	-0.118	-0.540	-1.192	25	Hunan	0.744	0.165	0.732	1.640	6
Hebei	0.419	0.093	0.404	0.916	11	Guangdong	1.493	0.331	1.517	3.342	2
Shanxi	-0.264	-0.058	-0.340	-0.662	20	Guangxi	-0.239	-0.053	-0.211	-0.503	17
Inner Mongolia	-0.473	-0.105	-0.475	-1.053	24	Hainan	-1.048	-0.232	-1.053	-2.334	28
Liaoning	0.510	0.113	0.479	1.102	10	Chongqing	-0.258	-0.057	-0.230	-0.545	18
Jilin	-0.410	-0.091	-0.439	-0.940	23	Sichuan	1.360	0.302	1.361	3.023	3
Heilongjiang	0.003	0.001	-0.029	-0.025	13	Guizhou	-0.339	-0.075	-0.350	-0.764	21
Shanghai	-0.108	-0.024	-0.123	-0.255	14	Yunnan	-0.225	-0.050	-0.217	-0.492	16
Jiangsu	1.255	0.278	1.229	2.762	4	Tibet	-1.505	-0.334	-1.450	-3.289	31
Zhejiang	0.701	0.155	0.675	1.532	7	Shaanxi	-0.266	-0.059	-0.252	-0.578	19
Anhui	-0.006	-0.001	0.006	-0.002	12	Gansu	-0.824	-0.183	-0.808	-1.815	27
Fujian	-0.349	-0.077	-0.343	-0.769	22	Qinghai	-1.240	-0.275	-1.231	-2.745	30
Jiangxi	-0.214	-0.047	-0.205	-0.466	15	Ningxia	-1.152	-0.255	-1.151	-2.558	29
Shandong	1.588	0.352	1.637	3.577	1	Xinjiang	-0.596	-0.132	-0.608	-1.337	26
Henan	0.823	0.182	0.810	1.815	5						

TABLE V. Regression analysis.

variable	$\beta$	t	p
Number of professional physicians (person)	-0.011712	-0.468338	0.641
Number of beds in medical and health institutions (ten thousand)	0.028553	0.824492	0.4125
Number of top three hospitals	0.00813	0.703176	0.4843
Number of admissions	0.01107	0.58862	0.5581
Per capita medical expenses (yuan)	0.04764	2.664923	0.0096
GDP per capita (yuan)	0.043825	3.074473	0.003
Per capita disposable income	-0.003677	-0.420584	0.6754

		(yuan)		
	Sulfur dioxide emissions (10,000 tons)	-0.026261	-4.51582	0
2.3	Industrial wastewater discharge (10,000 tons)	-0.010748	-0.871079	0.3868
	Comprehensive utilization of solid waste (10,000 tons)	0.0127	2.765102	0.0073

### Empirical Analysis

According to the above analysis results, the level of medical resources in the eastern and central regions is significantly higher. Among them, Shandong Province has the highest comprehensive score. Analysis TABLE III shows that the scores of common factor 1 and common factor 2 are 2.029 and 0.066 respectively, that is, the number of medical personnel and medical institutions and the number of medical expenses are relatively high. Sichuan's score on common factor 2 is -0.086, but its score on common factor 1 is very high, reaching 1.780. It shows that the number of medical personnel and institutions has a greater impact on the distribution of medical resources. Xinjiang's scores on common factor 1 and common factor 2 are negative numbers, respectively -1.529 and -1.423, which are due to the number of professional doctors, the number of beds in 10,000 medical and health institutions, the number of hospital admissions in tertiary hospitals, and the per capita medical expenditure (yuan) Compared with other regions, the concentration of medical resources is the lowest.

For the "number of medical personnel and medical institutions", Shandong Province scored higher, while Tibet, Gansu, Qinghai, Xinjiang, and Ningxia scored lower, with scores of -1.529, -0.763, -1.375, -1.367, -0.624. Shandong's economy is developed and local government revenues are considerable. Tibet, Gansu, Qinghai, Xinjiang, and Ningxia lack local financial support due to their low GDP; Shandong Province is located in an economically developed eastern region with high wages and large amounts Talents flock to the east, so Shandong Province has ample medical service talents, while Tibet, Gansu, Qinghai, Xinjiang, and Ningxia are in the western region of my country, with relatively harsh natural environments and weak attractiveness to talents <sup>[12]</sup>.

For the "quantity of medical expenses", Beijing, Tianjin, and Shanghai scored higher, while Tibet, Shaanxi, Gansu, Qinghai, and Xinjiang scored lower. This is because the Beijing-Tianjin-Hebei region has a long history and the grassroots social security system developed early and the system was complete, the level of protection is high, so the rate of bed allocation is high. While Guangxi, Tibet, Gansu, Qinghai, Ningxia, and Xinjiang are located in the western region, their economic development level is relatively backward, and the level of social security is low. Therefore, people spend very little on medical expenses. This shows that the comprehensive level of primary medical resources in municipalities is effective. Ningxia and Qinghai are economically underdeveloped areas, and the allocation of primary medical resources needs to be improved. Therefore, to achieve the effectiveness of primary medical resource allocation structure, the key point is to improve the western region to achieve the coordinated development of regional economy <sup>[13]</sup>.



It can be seen from TABLE V that the per capita medical expenditure ( $\beta = 0.04764$ ,  $p < 0.01$ ), its per capita GDP ( $\beta = 0.043825$ ,  $p < 0.01$ ), and the comprehensive utilization of solid waste ( $\beta = 0.0127$ ,  $p < 0.01$ ) are all equal to the average life expectancy is significantly positively correlated. Among them, the per capita medical expenditure showed the highest correlation, indicating that the higher first-order variable per capita medical expenditure has a more significant impact on the average life expectancy than the two sub-variables. Sulfur dioxide emissions are significantly negatively correlated with average life span ( $\beta = -0.026261$ ,  $p < 0.01$ ). Therefore, hypotheses H1, H1a, and H1b are verified.

### III. CONCLUSION

#### 3.1 Results Analysis

Health for individuals, not only refers to physical health, but also includes psychological health. Psychological health has a great bearing on one's life, work, body and achievements, and is also the key to one's success. Loneliness, mood and sleep are the internal reflection of external things, but also the embodiment of the degree of satisfaction with the outside world. With the rapid development of social economy, people's inner world should be paid more attention to. Health satisfaction and life satisfaction can generally measure whether people are satisfied with certain social relationships.

On the one hand, COVID-19 first emerged in Wuhan, Hubei Province, and quickly spread to the whole country and 24 countries around the world. The epidemic information overload has caused a huge impact and impact on the public's psychology, causing them to feel panic, anxiety, worry and depression. For the elderly, staying at home for a long time, having to go out less, and not being able to travel regularly, exercise and participate in social activities can affect their health and exacerbate anxiety and depression.

On the other hand, the degree of depression and sleep in psychological health, loneliness, health, satisfaction and life satisfaction of life will affect demand both in quantity and quality are not met, have an unhappy mood, to the person's cognition, emotion, behavior and health will cause harm, the health impact is mainly manifested in the physical health and psychological health. Studies have found that loneliness increases morbidity and mortality, especially cardiovascular diseases and accelerated aging. Loneliness also exacerbates sleep disorders, leading to poor sleep quality; Loneliness is also easy to cause cognitive level and life management behavior decline, will promote this part of the population is not willing to communicate with others, their own health management negligence, the probability of depression will increase. More effective measures to alleviate loneliness are needed in the future to maintain physical and psychological health. Both health satisfaction and life satisfaction have positive effects on health. The higher the satisfaction, the better the health. Health satisfaction and life satisfaction are part of happiness perception and subjective evaluation of life quality based on self-set standards. They are related to family income, pressure degree of clothing, food, housing and transportation, self-perceived state and personality, etc. In the management of people's health, keeping warm family environment, harmonious social atmosphere, rich spiritual and cultural life is helpful to psychological adjustment and improve the

psychological health of the public.

For the elderly, as their children finish school and start to enter the society, their parents have retired and stay at home alone. Since the last century, with the continuous development of social economy, the improvement of living standards and medical technology, the average life expectancy of human beings has been extended, many countries have appeared the trend of population aging, so empty nesters have become a relatively common social phenomenon. As a special group of elderly people, the psychological health of empty-nesters has attracted the attention of researchers at home and abroad, and has gradually become a hot topic. Worldwide, studies on the psychological health of empty-nesters show that psychological factors have a significant impact on their health. For example, as early as the 1980s, Australian scholars Koller and Gosden found in their study that empty-nesters have more restrictions in the process of communication with others and are prone to psychological disorders. The study of American researchers Lawton, Moss and Kleban also found that living style had a certain impact on the happiness of the elderly, and the happiness index of non-empty nesters was higher than that of empty nesters. In the 21st century, more researchers focus on the empty-nesters, a special group. Korean scholars You and Lee successively compared the physical condition, psychological health level and emotional state of empty nesters and non-empty nesters, and found that non-empty nesters had higher psychological health level and better emotional state. Some domestic studies have also confirmed that empty-nesters show more psychological pain, discomfort, anxiety and depression. The elderly psychological anxiety, loss, depression, fear, insomnia, headache, poor appetite, such as these symptoms can not be alleviated for a long time will lead to the elderly personality become withdrawn, autistic, endocrine disorders, decreased immunity, serious can even cause alzheimer's disease. To sum up, psychological health will have a positive impact on life expectancy, whereas psychological problems without timely treatment will have a negative impact on physical health.

### 3.2 Recommendations

#### 3.2.1 Optimizing multiple levels of global public health governance

In the era of globalization, opportunities are global, risks and challenges are also global. The new crown epidemic further shows that in the face of major public health emergencies, the strength of a single country is often limited. Even the United States, which ranks first in comprehensive strength in the world, has encountered problems such as shortages of ventilators, masks, and medical staff. Therefore, it has become an inevitable choice to develop international joint prevention and control and enhance coordination and cooperation between countries (regions).

Strengthen the construction of the general practitioner system and the hierarchical diagnosis and treatment system, accelerate the construction of the general practitioner system in terms of training, use, incentives, and practice methods, accelerate the training of a large number of qualified general practitioners, and establish a grassroots "health gatekeeper" system as soon as possible.

Strengthen the training and training of grassroots medical staff on infectious disease prevention and control knowledge, public health emergency early warning and emergency response knowledge. Higher-level hospitals, disease prevention and control agencies, and health supervision agencies should strengthen guidance and training for primary-level medical and health institutions, and enhance primary-level medical staff's sensitivity to early warning, timely reporting and emergency response capabilities for major epidemics.

Continue to strengthen the construction and application of grassroots informatization, give full play to the basic role of residents' health records, and make full use of artificial intelligence and information technology tools to carry out grid management, health education, health monitoring and tracking services, follow-up services, and infection risk assessment Wait.

Promote the construction of medical associations and medical communities, define the responsibilities and roles of various units in the medical community in public health emergencies and daily public health services, and establish and improve the division of labor and cooperation mechanism between the medical community and vertical and horizontal medical and health institutions. Explore effective models and approaches for the integration of medicine and prevention. Strengthen the construction of emergency and critical care departments in county-level hospitals, as well as the training and actual combat training of emergency response personnel.

### 3.2.2 Improve planning standards for medical and health facilities

Strengthen the docking and verification of planning standards for medical and health facilities and planning standards for other public service facilities. It is recommended to include the land index of other public service facilities that can be converted into medical and health facilities into the elastic index of land for medical and health facilities, including large-scale cultural and sports facilities that can be converted into square cabin hospitals, and cultural stadiums in schools. In addition, in the preparation of planning and construction standards for cultural, sports and other public service facilities, consideration should also be given to how the facilities can be quickly converted into shelter hospitals when public health emergencies occur. It is recommended that the state promulgate the planning and construction standards for shelter hospitals as soon as possible to provide guidance for the transformation of cultural and sports facilities into shelter hospitals.

Further improve the planning and construction standards of community health service centers (stations). It is recommended to increase the land area indicators of community health service centers (stations). The increased indicators are first used to set up a certain scale of open space to facilitate the evacuation of personnel and promote air circulation; at the same time, fever clinics should be set separately from other outpatient clinics. Reduce cross-infection; in addition, a certain number of medical beds that meet the isolation requirements should be set up to meet the centralized isolation requirements when an epidemic occurs. On April 30, 2020, the Beijing Municipal Health Commission proposed to set up a certain number of medical beds in community health service centers, which are usually used for rehabilitation and hospice

care, and can be used for isolation and observation when an epidemic occurs. In addition, at present, more than 90% of community medical and health service centers in China belong to the government-run, full-funded public institution model. It can be seen from this epidemic that the public health emergency management system has yet to be improved, and the role of primary health facilities is insufficient. Whether this part of the market will be released to the society in the future is worthy of discussion and attention.

### 3.2.3 Effective allocation of hospital bed resources

Resources According to the survey data, the number of hospital beds in China's township health centers accounts for almost 80% of the number of hospital beds in China's primary medical service institutions. Therefore, the government must rationally allocate the hospital bed resources of primary medical service institutions, and set it based on actual needs based on the use of hospital beds in the previous year. A budget table for the allocation of hospital beds to reasonably control the use of falsely high hospital beds; at the same time, the government should strengthen the inspection of the bed resources of community health service centers, community health service stations, street health centers, outpatient departments, and nursing stations, and allocate resources Institutions that do not have enough demand provide policy support and order them to make rectifications so as to achieve effective bed resources to meet the needs of patients.

Government should vigorously increase its support for primary medical service institutions in impoverished areas in the western region, especially the financial support for hospital bed resources in primary medical institutions. Only when the government pays more attention to the resources of hospital beds in the primary medical resources and grants a certain amount of financial guarantee, can the effective allocation of primary medical resources in my country be possible.

China is moving towards a legalized country. To achieve the rule of law, it is inevitable that "there must be laws to follow, law enforcement must be strict, and violations of the law must be investigated". Therefore, establish standardized laws and regulations before, during and after the use of primary medical resources. Standardized regulations are conducive to the effective allocation of primary medical resources; at the same time, the authority list of institutions is determined in the existing institutions that manage primary medical resources, so that the supervision and management institutions clarify their rights and responsibilities, which can better realize the resources Optimize the configuration and realize the supervision of primary medical resources to achieve the efficient allocation of resources.

### 3.2.4 Increase investment in public health care resources

The government should increase its investment in public medical resources according to the level of public medical institutions and their functional characteristics. In the allocation of medical resources of various medical institutions, the focus should be placed on community health service centers. On this basis, configure the second and third-level hospitals. Strengthen the role of primary hospitals as much as possible.

To this end, the investment of public medical resources can be made in terms of funds, policies, and talents. First of all, in terms of funds, corresponding investments should be made in financing methods, distribution methods, regulatory systems, and the construction of medical institutions. To strengthen the government's role in financing and distribution methods, the government, as the main body of public medical resource allocation, should bear more risks in treating basic diseases. Fiscal funds are the carrier for the government to invest in resources. Therefore, in the supervision of fiscal funds, it is necessary to ensure that governments at all levels establish corresponding supervision and management mechanisms for the entire process of public medical service investment, management, use, and input-output efficiency.

In terms of policy support, on the one hand, the government should formulate corresponding support policies for the difficult retention of medical talents in community hospitals; on the other hand, it should invest in funds to ensure that fiscal funds are distributed in a planned manner to avoid arbitrary risks. Health fiscal expenditures should formulate corresponding supervision and supervision policies for fiscal transfer payments to ensure that the special funds are used exclusively. Government should formulate corresponding integrated and coordinated policies on the medical resources owned by medical institutions and their use, so that resources at all levels of hospitals can play a role, and the idle medical resources owned by large hospitals can be transferred to lower-level ones in need. Hospital, avoid wasting resources.

### 3.2.5 Promote psychological health services

As for the impact of psychological health problems on life expectancy, relevant government departments should strengthen monitoring and information management, timely carry out extensive and in-depth health education and health promotion activities, so that the public can correctly understand COVID-19 knowledge, improve self-protection awareness and ability, and guide the public to adopt positive and healthy behavior. And protect them from the negative effects of stress by helping each other.

Psychological health education and service in China has been in the field of less attention, the public psychological health knowledge is weak. Should advocate the social from all walks of life to the elderly, women, the disabled, children and other key people with psychological health services, the compulsory course for psychological health education into the compulsory education, psychological health care awareness, encourage education and institutions involved in psychological health services, forming a virtuous circle of the psychological health service system.

Improve the economic conditions, living conditions and security of empty nesters. Strengthen the construction of social support system for the elderly. The elderly often feel lonely and lonely because their children are not around, especially with the growth of age, their ability to solve problems decline, when they encounter difficulties, they need the help and care of other relatives, friends or neighbors. Finally, the intervention of the government and society is needed to accelerate the improvement of the old-age security system and establish a sound community service and education intervention system. In recent years, with the weakening of family pension, if there is no perfect pension security system, the elderly will be completely in trouble after retirement without economic source. In addition, community public services

and educational interventions are also very important. They can be dispersed in various communities, neighborhood committees, timely training of relevant knowledge for the elderly, health services, psychological intervention.

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