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# The Impact of the COVID-19 Pandemic on People's Health and Management Strategies

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**Abstract:** Long-term sequelae of neocrown pneumonia are usually symptoms such as fatigue, shortness of breath, cognitive dysfunction, and neurological impairment that persist in people with neocrown virus infection and cannot be explained by other diagnoses. A combination of studies has found that sequelae due to different strains do not fundamentally differ across regions of the world, that long-term sequelae can occur in mildly and asymptotically infected individuals. More importantly, the COVID-19 pandemic may cause paralysis of healthcare institutions. The impact of long-term sequelae of neocrown pneumonia is emerging. The good news is that it may force the population of the healthy living and the implementation of graded treatment. Also, it can help promote traditional Chinese medicine. As far as the application of the Internet in the prevention and control of the COVID-19 pandemic is concerned, both Internet medical care and pharmaceutical e-commerce have opportunities to develop. But its negative effects are also obvious. The COVID-19 pandemic not only affect the normal order of social production and life, but also threaten the human health continuously. Badly, it will shock the health care system and challenge the equity of the access to health services. Large gap between online pharmaceutical services and actual demand is another serious problem. Four countermeasures are proposed to address the above problems. First, construct a modern health governance system. Second, improve the modernization of major pandemic treatment system. Third, strengthen the prevention and control of major pandemics. Fourth, innovate the medical service model.

**Keywords:** COVID-19, People's Health, Long-Term Sequelae

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## 1. Introduction

The COVID-19 Pandemic is the most serious global infectious disease pandemic in a century, and is the fastest spreading, most widely infected, and most difficult to prevent and control major public health emergencies since the founding of the People's Republic of China. At present, the global situation of the new crown pneumonia epidemic is still very serious, the World Health Organization published data show that, as of May 4, 2022, the global new crown pneumonia cases have accumulated more than 513 million confirmed, the number of deaths exceeded 6.26 million. The more serious challenge is that the new coronavirus strains

mutate again and again, and spread faster and more insidiously. Currently, the epidemic is still running at a high level in some areas of China and the impact remains significant [14].

### 1.1. The Basic Manifestations of Long-Term Sequelae of COVID-19 Pandemic Have Commonalities in Different Regions

According to the available information, the overall situation of long-term sequelae of the pandemic in different regions of the world is basically the same, and the symptoms, characteristics and related indicators tend to be consistent. The main features are as follows: (1) 10%-30% of patients develop long-term sequelae, which is slightly higher than the rate

(10%-20%) published by WHO; (2) the duration of long-term sequelae varies from person to person, lasting at least two months, but there are still some people who have at least one symptom six months or even one year after diagnosis; (3) patients in different countries and regions with similar symptoms, commonly presenting with fatigue, cognitive impairment, neurological impairment, loss of smell and taste function, dyspnea, depression, etc.; (4) Studies in almost all regions point out that long-term sequelae are related to gender, age, underlying disease, etc., and are mostly seen in women, elderly, and people aged 35-69 years are more likely to have long-term sequelae than those under 35 years higher

probability [10].

**1.2. There Is No Fundamental Difference in the Sequelae Caused by Different Strains**

The studies that have been done differ in the time of sample collection and in the strains analyzed, but commonalities can be found among them. Studies have shown that fatigue is the most common sequelae symptom, and neurological damage is also prevalent at different times, with headaches, hair loss, static artery thrombosis, and heart damage also occurring at different times.

*Table 1. Results of long-term sequelae of COVID-19 pandemic studies in different periods.*

Source	Sample Time	Common symptoms, infection rate	Length of study	Crowd Characteristics
Academic Papers in the Archives of Academic Emergency Medicine (1)	2019.12-2020.10	Pulmonary injury, venous artery thrombosis, cardiac injury, cardiac stroke and neurological injury	N/A	N/A
The Lancet Academic Papers (2)	2020.1-2020.5	Fatigue or muscle weakness (63%), difficulty sleeping (26%), anxiety or depression (23%)	After 6 months of infection	A total of 1733 patients were enrolled. The median age was 57.0 years and 52% were male
Journal of Jinan University, Academic Papers (3)	2020.1-2020.5	Fatigue (48%), dry mouth (37%), insomnia (29%), chest tightness and shortness of breath (29%), bitter mouth (21%), chills (20%)	After 5-8 months of recovery and discharge from the hospital	574 patients in Wuhan area, 39% were men
Academic Papers, Mayo Foundation for Medical Education and Research, USA (4)	2020.6-2020.12	Fatigue (80%), respiratory symptoms and neurological symptoms (59%)	After an average of 93 days of infection	A total of 100 patients. Mean age was 45.4 years; 68% were female
Nature Scientific Reports Paper (5)	By 2021.1	Fatigue (58%), headaches (44%), concentration disorders (27%), hair loss (25%) and breathing difficulties (24%)	Varies between 14-110 days post-infection	A total of 47,910 patients, aged 17-87 years
UK ONS Questionnaire Report (6)	As of April 7, 2022	Fatigue (51%), shortness of breath (34%), loss of sense of smell (28%), muscle pain (24%)	More than four weeks after infection	Total 1.7 million patients, age 2 years and older

**Resource**

- <https://journals.sbm.ac.ir/aaem/index.php/AAEM/article/view/1058>.
- <https://www.cas.org/resources/covid19>.
- <https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2021&filename=JNDX202104012&uniplatform=NZKPT&v=4iKc2H5RDyn-tKE4MXUclZ1vIPMlwHaC5JcTLfB8a7BWlufCDgnpzI4Wlt8Sc0oP>.
- [https://www.mayoclinicproceedings.org/article/S0025-6196\(21\)00356-6/fulltext](https://www.mayoclinicproceedings.org/article/S0025-6196(21)00356-6/fulltext).
- <https://www.nature.com/articles/s41598-021-95565-8#Sec8>.
- <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/prevalenceofongoingsymptomsfollowingcoronaviruscovid19infectionintheuk/7april2022>.

**1.3. Long-Term Sequelae of COVID-19 Pandemic Can Also Occur in Mild and Asymptomatic Infections**

The Mayo Foundation for Medical Education and Research study showed that while 75% of patients were mildly ill and not hospitalized, 80% still reported symptoms of fatigue, 59% reported more than one respiratory symptom and neurological symptoms, and 34% reported an inability to perform normal work and life. Fair Health, a U.S. nonprofit organization, released the White Paper on Long-Term Sequelae of COVID-19 pandemic based on 1.96 million U.S. population health insurance data, which has attracted more attention due to the large sample size. It reported that 23.2 percent of patients developed at least one long-term symptom 30 days after initial diagnosis, including more than 50 percent of hospitalized patients, 27.5 percent of non-hospitalized patients

with mild disease and 19 percent of those with asymptomatic infection.

**1.4. The COVID-19 Pandemic Has Posed a Serious Problem for the Effective Operation of Healthcare Institutions**

On the one hand, healthcare facilities face a high risk of cross-contamination and transmission of the outbreak, and on the other hand, the crowding out of healthcare resources caused by the pandemic has had an unprecedented impact on the entire healthcare sector. According to the data collected by World Health Organization from five global regions between March and June 2020, health services have been disrupted in almost every country (90%), with the majority of countries reporting Many routine and optional services have been suspended, life-saving emergency services have been disrupted in some countries, 24-hour emergency services have

been disrupted in 22% of the countries, emergency blood transfusions have been disrupted in 23% of the countries, and emergency surgeries have been affected in 19% of the countries. With the rapid spread of the Omicron strain in the U.S. and the continued surge of new confirmed cases, the health care system is under tremendous pressure and, unlike previous waves of the pandemic in the U.S., the U.S. health care system is now short-staffed, having lost at least 20% of its health care workers, and patients who continue to arrive in hospitals may be left without care. Neil Mortensen, president of Royal College of Surgeons of England, said that the COVID-19 pandemic is causing "serious disruption to NHS", with many surgeries cancelled across the UK. And doctors and health department leaders also say that the government's backlog of targets seems increasingly difficult to achieve. A questionnaire involving 26 provinces and cities and 316 hospitals in China show that in February 2020, almost all hospitals surveyed experienced a serious year-on-year decline in business and operating income, with 78.48% of hospitals experiencing a year-on-year decline of more than 40% in outpatient volume and 58.86% of hospitals experiencing a year-on-year decline of more than 50% in inpatient volume, while there were also tragic cases of excuses and refusals that delay treatment due to pandemic prevention and control. In January 2022, a pregnant woman in Xi'an was sent to Xi'an High-Tech Hospital by 110 for medical treatment because she was not feeling well, but due to the nucleic acid test results were over 48 hours and the new test results had not yet been released, it was impossible to be admitted to the hospital, and after waiting at the door for 2 hours the pregnant woman hemorrhaged and the 8-month fetus was aborted. In March 2022, a nurse from Shanghai Oriental Hospital had an asthma attack and went to the emergency clinic of the South Hospital of Oriental Hospital, her workplace, but was refused by the hospital because the emergency clinic was stopped due to pandemic prevention and control, resulting in her death due to the long delay.

## 2. Analysis

Since the outbreak of the COVID-19 pandemic, the global economic development has suffered a lot. The economic situation in Europe, the United States, Japan and other regions and countries has kicked off the Great Recession. However, we have gained a clear strategic advantage over the West through our effective and precise prevention and control strategy, "dynamic clearance", and in 2020 we became the only major economy with positive global GDP growth; in 2021 our annual GDP growth rate reached 8.1%, faster than major economies. The above facts prove that if the pandemic prevention and control is successful, it will further accelerate economic and social development and improve people's health; on the contrary, if the pandemic prevention and control is unfavorable, not only will it cause damage to economic and social development and influence people's health, but it will be counterproductive. This study focuses only on the impact of the COVID-19 pandemic on people's health.

### 2.1. Positive Impact

#### 2.1.1. Healthy Living Is Popularized

In the course of fighting the pandemic, the government and various sectors of society have carried out universal health education, shaped autonomous and self-disciplined health behaviors, and strengthened guidance and intervention for healthy lifestyles in families and at-risk individuals in order to improve residents' health concepts and hygiene habits. In accordance with scientific guidance, residents actively respond to the call of "everyone is the first person responsible for their own health" and practice a civilized and healthy lifestyle, and the level of national health literacy has increased significantly. The need for safety has received unprecedented attention, and residents have increased their awareness of protection, maintained a safe social distance, developed good hygiene habits such as wearing scientific masks, washing hands regularly, ventilating frequently, not piling up, not gathering, less gathering and sharing meals, and advocated a healthy lifestyle. Healthy diet more scientific and effective, pay attention to their own nutritional needs, to achieve scientific diet, diverse diet, healthy green diet. Secondly, the concept of health and fitness habits have changed, the national fitness ushered in new development opportunities, pay more attention to physical and mental health exercise, innovative national "Internet + home fitness" new model, and promote the overall development of the sports industry.

#### 2.1.2. Accelerate the Implementation of Graded Treatment

Graded treatment is the core part of the medical and health system reform. In the process of fighting the pandemic, the two key influences are "isolation" and "treatment", of which "classification" plays a central role. The core of the graded treatment system in the pandemic is the same as the normal graded treatment model, i.e., different levels of medical institutions are responsible for treatment according to the severity of the disease and the ease of treatment, so as to alleviate "medical crowding", release medical needs in a balanced manner, avoid the spread of infection, maintain health equity, scientific education, and prevent panic from spreading. In the prevention and control of the pandemic, medical personnel in primary health care institutions have played an important and active role, fully demonstrating the achievements of the reform and development of China's public health system, the continuous expansion of public health service coverage and the increasing level of equalization, but the level of public health development in China still lags behind economic and social development and the growing health needs of the people.

#### 2.1.3. The Advantages of Chinese Medicine Prevention and Treatment Continue to Play

Chinese medicine is effective in fully participating in pandemic prevention and control and disease treatment, etc. The anti-pandemic experience has boosted the development of Chinese medicine heritage and innovation and the modernization of Chinese medicine, and promoted the government and the scientific and technological community

and the pharmaceutical industry to increase investment, strengthen the research on Chinese medicine and medical technology, and promote the high-quality development of Chinese medicine. World Health Organization distributed the "Report of the WHO Expert Evaluation Meeting on Chinese Medicine for the Treatment of the COVID-19 pandemic" on its official website, which clearly affirmed the safety and effectiveness of Chinese medicine for the treatment of the COVID-19 pandemic, fully recognized the important contribution of Chinese medicine in fighting the COVID-19 pandemic, and promoted the deeper participation of Chinese medicine in the prevention and control of the COVID-19 pandemic to better protect the health of people around the world. The Chinese side has actively contributed to the fight against the pandemic overseas, demonstrating "Chinese wisdom" and contributing "Chinese experience". The fact that "Chinese medicine" has gone global and has been highly evaluated by the international community has fully proved that Chinese medicine is also the wealth of the world's people. The wider international recognition of Chinese medicine has accelerated the pace of internationalization of Chinese medicine and promoted the deeper cooperation between China and foreign countries in the field of Chinese medicine.

#### **2.1.4. Rapid Development of Internet Medical Care**

The State Health and Welfare Commission has issued successive documents "Notice on Strengthening Information Technology to Support the Prevention and Control of the COVID-19 Pandemic" and "Notice on Doing a Good Job of Internet Medical Consultation Service in the Prevention and Control of the pandemic", requiring provincial health and health administrative departments to unify the establishment of a province-wide Internet medical service platform and a service management platform for the prevention and control of the pandemic, and to centrally integrate the Internet hospitals and Internet medical consultation platforms that have been registered and approved. hospitals and Internet diagnosis and treatment platforms, and coordinate and organize respiratory medicine, infection, emergency medicine, critical care medicine, mental health and general practitioners to carry out Internet diagnosis and treatment consultation services on these platforms. According to the National Health Commission, as of March 2022, China's Internet hospitals exceeded 1,700, initially forming an integrated online and offline medical service model and realizing contactless consultation. Various technology companies actively establish partnerships with public hospitals, especially technology companies with Internet genes, such as Tencent, which established a special fund of 1.5 billion yuan while launching "digital solution to the pandemic", integrating Tencent Medical Health, Enterprise WeChat, Tencent Cloud, Tencent Security and other platforms, using Internet means to assist hospitals to carry out online office, telemedicine and other services, remote multidisciplinary consultation, improve work efficiency, relieve pressure on offline hospitals and avoid cross-infection. Internet hospitals have become an important one for patients [4]. According to statistics, as of December

2021, the size of China's online medical users reached 298 million, an increase of 83.08 million from the end of 2020.

#### **2.1.5. The Development of Pharmaceutical E-commerce Opportunities**

The number of users visiting pharmaceutical platforms increased significantly, while several pharmaceutical e-commerce platforms cooperated with the launch of online consultation and pandemic information distribution services, improving platform services. With the limited scope of user activities, the social awareness and usage rate of pharmaceutical e-commerce platforms with delivery service capabilities have been significantly increased. By accessing "online medical consultation", pharmaceutical e-commerce platforms try to open up the chain of online medical consultation, electronic prescription issuance, prescription drug sales and delivery. For example, "Jingdong Health", in conjunction with People's Daily Health Client and Health Times, launched the "Fight against the pandemic - Chronic Disease Care and Medication Welfare Program" to protect the medication needs of chronic disease patients during the pandemic and provide patients with online prescription refills and home delivery of medication. The program provides patients with online prescription refills and home delivery services. The application and popularization of the medical insurance online payment scheme is expected to accelerate, and pharmaceutical e-commerce platforms are expected to gain market share in hospital outflow prescriptions under the popularization of the medical insurance online payment scheme [12]. Promote the construction of regional medical information technology platform, medical information system development regional medical shows the advantages of resource allocation, departmental linkage, emergency first aid and many other aspects of the medical information system plays a very important supporting role in the timeliness of the collection and publication of various types of data. At the same time, give full play to the important role of third-party testing organizations, testing rapid response and efficient organization.

## **2.2. Negative Impact**

### **2.2.1. Affect the Normal Order of Social Production and Life**

The COVID-19 pandemic has caused a huge impact on the normal order of production and life and economic and social development in China. Emergency measures, closures and travel restrictions have been implemented in many places, city operations have been suspended, some enterprises have stopped work and production, and shortages of production and pandemic prevention materials have become increasingly evident [10]. The "psychological typhoon eye effect", social discrimination against patients with new infections and criminal incidents are frequent. The public nature and suddenness of the pandemic and the endless internet rumors tend to trigger social anxiety and panic, affecting public mood, psychology and social order, and leading to the spread of social depression and anxiety. Some vulnerable social groups have difficulty adapting to a similar state of crisis, causing

widespread social panic, such as the rush to buy. Interpersonal interactions are in trouble, social contacts are restricted, and loneliness and social alienation increase. People are facing difficulties in life, business difficulties or psychological stress, leading to negative emotions, increasing the risk of group incidents, suicides and other extreme personal events, and easily breeding social problems [8].

### **2.2.2. Continuing Health Threat from the COVID-19 Pandemic**

The COVID-19 pandemic is not just a respiratory disease, but affects multiple tissues and organs in the body. Clinical evidence suggests that the respiratory, cardiovascular, neurological, digestive, and endocrine systems can all suffer varying degrees of damage. Elderly people who are not fully vaccinated and those with underlying diseases are more likely to be critically ill or even die if infected. In addition, the pandemic has a serious impact on people's mental health, causing anxiety, depression, post-traumatic stress disorder and other mental health problems. In addition, the long-term sequelae of the COVID-19 pandemic cannot be ignored as well. Even in mildly ill, asymptomatic patients, it is difficult to return to their pre-morbid state for a long time after healing, and the negative impact on patients' mental health lasts for at least 20 years [13]. In addition, the reduced social contact, isolation, incomplete recovery of physical health and unemployment brought about by the experience of illness can cause reduced social functioning in patients [7]. The COVID-19 pandemic has been recurrent so far and there are still many uncertainties that pose a new threat to health.

### **2.2.3. Shock to the Health Care System**

The COVID-19 pandemic has increased the burden on the health care system and impacted health care services. Hospitals across the country, with the exception of the designated hospitals for the pandemic, adjusted their access processes, conducted widespread fever screening, and closed general outpatient clinics for related specialties such as dentistry. Limited medical resources were utilized for the prevention and control of the pandemic, and health workers working in the field of non-communicable diseases were diverted to support the treatment of the pandemic, resulting in the postponement of public screening programs for breast and cervical cancers. In addition, fever clinics and hospital beds have been severely overloaded in some areas, and many areas are experiencing shortages of medical supplies, shortages of medical workers, and overloaded hospitals. The squeezing effect of the pandemic on medical resources, the rapid increase in the consumption of medical resources, and the influx of a large number of patients into hospitals in a short period of time have resulted in a serious shortage of medical resources supply and led to a shortage of medical resources [1].

### **2.2.4. Equitable Access to Health Services Is Challenged**

The pandemic has caused many inconveniences to patients with other diseases in the process of medical care, treatment and rehabilitation. Many patients fear infection with the virus

and thus are unable to undergo routine medical treatment and screening, and many non-New Crown pneumonia patients have no medications to buy due to the impact of the pandemic and the suspension of sales of prescribed medications such as antipyretics and cough suppressants by drug retailers in medium and high-risk areas and in sealed control areas. The vast majority of medical resources were tilted toward the treatment of the pandemic, interfering with normal access to public medical resources for patients with other diseases such as oncology, trauma, and emergency care, affecting normal patient access and treatment and making it difficult to meet patients' demand for medical care. The pandemic has led to a further amplification of the social gap between rich and poor, exacerbating inequalities and making it difficult for poor and vulnerable groups to access the use of medical resources at their disposal due to economic and social disparities.

### **2.2.5. Large Gap Between Online Pharmaceutical Services and Actual Demand**

With the development of "Internet+medicine", the pandemic has restricted offline medical consultation, resulting in a proliferation of online medical users, but the shortage of drug supply, shortage of third-party delivery personnel and relatively limited logistics capacity under the pandemic prevention and control has led to a long delivery cycle, making it difficult to meet the demand of residents for drugs in a timely manner. The non-face-to-face mode increases the uncertainty of diagnosis and treatment quality, and the quality of Internet diagnosis and treatment cannot be guaranteed. Online consultation is still in the exploratory stage, and there is limited support from the national level for the supply and price of drugs on the Internet. For special groups such as the elderly and the poor, it is difficult to meet the demand for medical treatment and medicine through the Internet. In addition, it causes problems in the management of patient medical information data, and online hospitals are limited in obtaining information about patients' own medical data, and cannot guarantee the integrity and reliability of the data [11].

## **3. Conclusion and Strategy**

Although the Omicron mutant strain has greatly increased the difficulty of preventing and controlling the pandemic, the reality of fighting the pandemic in Shanghai and Hong Kong once again proves that only by adhering to the concept of "people first and life first" and the general strategy of "external prevention and internal prevention of rebound" and the general policy of "dynamic zero" can we stop the spread of the pandemic as soon as possible and protect people's lives and health to the maximum extent. The pandemic prevention and control is an important prerequisite for all work, "a stable are stable, a loss are lost". The short-term strategy to coordinate the conflict between pandemic prevention and control and economic and social development can be adjusted as follows: external sealing and control, internal opening, respecting people's wishes, protecting people's livelihood, re-linking and sparing circulation.

Adhering to the "dynamic zero" is the best solution to effectively prevent the social panic and medical resources crowding caused by the large-scale rebound of the pandemic, and is the most scientific, effective, economic and realistic strategic choice to combat the pandemic. The impact of the pandemic on economic and social development will be minimized. The fight against the pandemic is a major test of the national governance system and capacity. We should turn the crisis into an opportunity, nurture new opportunities in the crisis, open new innings in the change, and strive to improve the level of comprehensive social governance of major public health events, so as to promote the sustainable and healthy development of China's economy, society and health care in both directions.

### ***3.1. The Construction of a Modern Health Governance System***

First, we should adhere to the policy of "people first, life first", and constantly strengthen the modern governance concept and awareness of governance according to law, source governance, system governance, comprehensive governance, and improve the unified leadership, clear functions, independent supervision, multi-party participation, streamlined and efficient modern health governance system. Second, improve the health governance mechanism. Adhere to the health-centered approach to health work, strengthen the Party's leadership in the implementation of the "Health China" strategy, integrate institutional functions, establish an effective linkage mechanism between health administration, medical insurance departments, disease control centers, and medical institutions, and supervise the implementation of the Party's leadership in the "Health China" construction. The Party's leadership in the construction of "Healthy China" should be supervised. Third, improve and develop the health promotion model. Continuously improve the national health policy and implement health China actions. Improve the "health integration million policy" mechanism and health impact evaluation system. Improve the major public health risk research, assessment, decision-making, prevention and control mechanism. Improve the health education system, improve people's health literacy, accelerate the creation of healthy cities, healthy villages and towns, healthy communities and healthy cells, popularize healthy living, optimize health services, and create a good environment for the protection of people's health.

### ***3.2. Improve the Modernization of Major Pandemic Treatment System***

First, the construction of standardized provincial, municipal and county-level disease prevention and control centers, improve the hierarchy of major pandemic treatment system, and accelerate the implementation of public health prevention, control and treatment capacity enhancement project. Second, relying on existing resources, accelerate the construction of infectious diseases, trauma, major public health events and other professional categories of regional medical centers at the

provincial level. Break the pure public health function of the CDC, integrate the medical resources of infectious disease hospitals, chest hospitals and CDCs, and realize the integrated development of prevention, treatment and rehabilitation [15]. Third, support large public hospitals with multiple hospital areas outside the main hospital area, new or expanded public health clinical centers, focusing on strengthening the construction of pandemic treatment capacity to ensure that in the event of a major pandemic can quickly achieve functional conversion. Fourth, the county relies on county-level public hospitals to strengthen the construction of infectious disease departments and relatively independent infectious disease wards, the construction of independent infection building, infectious building, to achieve the hospital area "combined with the level of war". Fifth, strengthen the standardization of public health departments in public hospitals, strengthen talent training and echelon construction, improve the comprehensive evaluation index system, and improve the overall public service capacity [3].

### ***3.3. Strengthen the Prevention and Control of Major Pandemics***

Prevention and control of major pandemics is the top priority of the construction of the CDC system. The risk of major infectious diseases still exists in the future, so it is recommended that: First, in accelerating the construction of Shandong Province Public Health Clinical Center and Qingdao, Heze sub-center construction efforts and speed, while accelerating the layout of the construction of the corresponding level of city and county-level infectious disease control institutions, comprehensive hospital ICU and negative pressure wards, increase the reserve of negative pressure beds [2]; Second, the reasonable layout of the "square cabin type" temporary emergency medical treatment places, centralized isolation places, increase the reserve of emergency rooms [5]; Third, improve the medical insurance and relief system for major diseases, the establishment of medical insurance funds emergency prepayment system to ensure that in the event of a sudden major pandemic and other emergencies, medical institutions first treatment, and then charge [9]. To explore the establishment of special groups, specific disease medical fee exemption system, targeted exemption from the medical insurance payment catalog, payment limits, the amount of drugs and other restrictive terms, to alleviate the difficulties of the masses to seek medical care and medical care after the worry.

### ***3.4. Innovative Medical Service Model***

Innovative medical service model to meet the diversified and multi-level medical needs of residents during the pandemic, and promote the transformation of medical treatment in a scientific and reasonable manner. First, promote multidisciplinary treatment model. Vigorously promote the construction of pre-hospital medical emergency network, innovate the emergency medical service model, and effectively enhance the capacity of pre-hospital medical

emergency services. Innovate the mechanism of medical defense synergy, and establish a mechanism of personnel access, information access, resource access and supervision and monitoring mutual constraints [6]. Promote the integrated treatment model of Chinese medicine, multi-professional integrated treatment model, the whole chain of services model, and implement pilot clinical collaboration between Chinese and Western medicine for major and difficult diseases. Second, strengthen the role of information technology support. Actively organize medical institutions at all levels with the help of "Internet+" to carry out online mandatory consultation, home medical observation guidance and other services for new coronavirus-infected pneumonia, expand the space for online medical services, guide patients to orderly access to medical care and ease the pressure on offline clinics. Give full play to the unique advantages of Internet hospitals and Internet diagnosis and treatment, encourage the online development of some common diseases, chronic disease follow-up and drug delivery services, innovative delivery methods, reduce the risk of crowd gathering and cross-infection. Third, to promote the "Internet +" medical insurance services. The cost of eligible "Internet+" medical services will be included in the scope of medical insurance payments, and the direct settlement of dispensed medications at designated retail pharmacies will be explored and settled by individuals and medical insurance funds respectively in accordance with the medical insurance policies and standards set by the coordinating regions to help prevent and control pandemics.

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