

Applications to health in Covid- 19

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ABSTRACT

According to China's Constitution and other legislation, individuals have a right to health. In the COVID-19 era, several obstacles have hampered the full realisation of the right to health. Big data technology has been a hot topic of discussion because it has been used to protect the right to health in China through public health surveillance, contact tracing, real-time epidemic outbreak monitoring, trend forecasting, online consultations, and the allocation of medical and health resources. Due to Chinese institutional characteristics, big data technology has enabled accurate and efficient epidemic prevention and control, as well as increased the efficiency and accuracy of diagnosis and treatment of

this novel kind of coronavirus pneumonia. Although big data technology has helped to contain the virus and safeguard the right to health in the COVID-19 age, it also has the potential to infringe on individual privacy rights. Chinese politicians should be aware of the benefits and drawbacks of big data technologies, and should make the Personal Information Protection Law and other laws aimed at protecting and strengthening the right to privacy a top priority.

Key Words: *Big data technology; COVID-19; Epidemic prevention and control; human rights; Right to health, Right to privacy; China*

INTRODUCTION

COVID-19, a novel coronavirus pneumonia, has struck with unparalleled severity and scale. According to statistics, there were 170,051,718 confirmed COVID-19 cases globally as of May 31, 2021, with 3,540,437 deaths [1]. With limited medical and health resources in any state, dealing with such a large public health catastrophe is tough. China adopted significant, strict, and complete containment measures in response to the outbreak to prevent and control the COVID-19 pandemic and protect residents' right to health. Health policy responses are increasingly shaped by data analysis, algorithms, and mathematical modelling. On many levels, new technologies are being woven into diagnostic and therapeutic services, from surveillance mapping to mobile phone apps. These technology and techniques have improved health care and are being used to prevent and control pandemics around the world [2]. Science and technological advancements have always been related to the history of humanity, but the recognition of their potential effects on humans is directly tied to the establishment of human rights as deontic qualities in the legal area [3]. These events raise important questions. Big data applications have been linked to human rights concerns in the literature.

What role should big data technology play in realising and safeguarding the right to health? Is the use of big data technologies

useful in ensuring the right to health is protected? What are the dangers and ramifications of this technology? During the COVID-19 prevention and control era, this study looked into China's use of big data technology to defend its citizens' right to health, as well as the positive and negative effects of this technology. The rest of this paper is laid out as follows. It presents the Chinese legal structure that underpins the right to health. During the COVID-19 epidemic, the main impediments to the realisation of the right to health are highlighted. examines how big data technologies can be used to protect the right to health during the COVID-19 epidemic. investigates the benefits and drawbacks of big data technology applications. outlines the key institutional factors of big data technology's consequences.

China's legal and institutional framework for the right to health

The right to health was first articulated as a human right in the World Health Organization's 1946 Constitution, and has since been recognised in the Universal Declaration of Human Rights, the International Covenant on Economic, Social, and Cultural Rights (ICESCR), and other international and regional treaties. The ICESCR recognises "everyone's right to the highest attainable

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standard of physical and mental health." The United Nations Committee of Economic, Social, and Cultural Rights' General Comment No. 14 summarises the principles and resources needed to realise the right to health. Certain freedoms and benefits are inextricably linked to the right to health. The specifics of the right to health, on the other hand, differ between regional human rights treaties and national constitutions. The right to health is protected, respected, and fulfilled in most national constitutions.

Although the People's Republic of China (PRC) Constitution does not specifically mention health as a fundamental right of the PRC Constitution declare that the state has a responsibility to preserve the health of its inhabitants [4]. According to the state is responsible for preventing and controlling pollution and other public hazards. The right to health is guaranteed. The People's Republic of China's Promotion of Basic Medical and Health Care Law (the PRC Health Promotion Law) clarifies the legal status of the right to health and the state's obligation to respect and protect it, mandating that individuals have access to basic medical and health services. Individuals have the right to basic medical and health services from the state, According to the PRC Health Promotion Law of this law defines basic medical and health services as disease prevention, diagnosis, treatment, nursing, rehabilitation, and other services provided through drugs, technology, and appropriate equipment required for the preservation of individuals' health within the state's economic development and capacities, and stipulates that they should be equitably available to all. Medical and health services, goods, and facilities must be provided to all without discrimination, and all medical and health services, goods, and facilities must be available, accessible, medically and culturally acceptable, scientifically and medically appropriate, and of good quality, according to legal theory and international covenants [5]. Functioning public health and healthcare facilities, goods, and services must be available in sufficient quantity within a state, and they must be physically and financially accessible to everyone without discrimination. Basic medical and health services should also be equitably available and accessible, according to the PRC Health Promotion Law.

China's epidemic prevention and control obstacles to the right to Health

Institutional arrangements are included in the PRC Health Promotion Law to protect and fulfil Chinese citizens' right to health. Increased financial inputs into the medical and healthcare sectors, including the establishment and improvement of a medical service system composed of grassroots medical institutions, hospitals, and professional public health institutions; and the establishment of a multi-layered social security system to realise citizens' right to health are among the obligations of the state and society. Both the state and society are obligated to guarantee and provide healthcare services to residents during the epidemic prevention and control phase. However, considerable obstacles exist in the COVID-19 era that prohibit the full realisation of the right to health[6].

Disease prevention and control as a human right

Basic epidemic preventive materials, such as masks and disinfectants, are required for preventing and controlling COVID-19 and other epidemic infections. These supplies are critical in safeguarding the right to health and preventing the virus's spread. When a vaccine becomes available, everyone has an equal right to get vaccinated. As a result, the state has a responsibility to ensure that fundamental public

health and epidemic prevention items are available to suit the needs of citizens. However, in order to realise this right to epidemic prevention and control, a healthy public health environment free of virus infection is required. Only on-site control, disinfection, and isolation of public spaces can provide this for the government and its related agencies. As a result, the government is required to establish isolation facilities, undertake epidemic detection at important traffic stations, and sterilise public areas. In order to control the source of the infection, the state is also required to report, monitor, investigate, and undertake epidemiological investigations on COVID-19 infections. Some components of the right to health were not guaranteed in the early stages of epidemic prevention and control for a variety of reasons. First, acute shortages made it impossible in certain circumstances to procure basic epidemic preventive supplies. The strong demand for personal protective equipment, like as gloves, face masks, goggles, face shields, and gowns, during the early stages of epidemic prevention and control resulted in serious shortages of emergency medical items in Hubei province and elsewhere[7].

Due to a lack of protective materials, the government limited frontline medical workers, and to conserve time and protective supplies, healthcare providers did not eat or drink during working hours to avoid going to the restroom. China erected the 1000-bed Huoshenshan Hospital in Wuhan and finished the building of the Leishenshan Hospital, a second 1600-bed facility, in just a few days during the COVID-19 outbreak's emergency and medical material crisis. Second, a country's public health security system and its ability to respond to significant public health emergencies limit access to a healthy public environment. COVID-19 has ravaged the globe since the end of 2019, and many countries' public health systems have been proved to be ineffective in preventing the disease's spread. China's reaction could not keep up with the virus's rapid spread in the early stages of epidemic prevention and control, owing to a lack of timely reporting of outbreak information. Low detection capacity and a lack of isolation areas were serious flaws, showing that China's ability to prevent, identify, and respond rapidly to public health emergencies has to be improved[8].

Right to treatment

Despite the fact that COVID-19 individuals have a different diagnostic and treatment choices than other patients, both groups have the same right to treatment. SARS-CoV-2 patients have the right to prompt and effective diagnosis, treatment, and rehabilitation. COVID-19 patients are divided into four groups (light, normal, heavy, and critical), with distinct therapies and rehabilitation programmes for each group. When severe and critically ill patients are not treated swiftly and properly, they are at risk of dying. During the epidemic prevention phase, patients who are not infected with SARS-CoV-2 have the right to early and effective diagnosis, treatment, and rehabilitation. General and emergency medical care is the most common types of basic medical care. Only these two categories allow patients to exercise their right to treatment. The state must provide enough medical facilities for citizens, as well as medical services with adequate medical professionals and basic medical supplies, in order to successfully guarantee patients' right to care. Since the creation of basic medical insurance for urban employees in 1998, China's health-care system has vastly improved. Furthermore, since 2013, China has built a broad medical insurance system and a medical aid system to give humanitarian help to persons who are unable to obtain medical insurance, in order to ensure the application of this right[9].

Basic health-care services availability

The original basic public health services, such as the establishment of resident health files, health education, vaccination, child health

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management, maternal health management, infectious disease and public health emergency reporting and handling, and health supervision and co-management, are all included in China's basic public health services. All of this is codified in the People's Republic of China's Emergency Response Law, Article 34 of the People's Republic of China's Emergency Regulations on Public Health Emergencies, the People's Republic of China's National Code of Basic Public Health Services, and other laws. Individuals must have the right to equitable and timely access to essential health care in order to sustain their health. China was already employing big data to combat the spread of COVID-19 across the country prior to 2020. China has been able to trace infected persons and their close contacts thanks to smartphone technology and data obtained from the internet and other sources, which has greatly aided the identification of those who need to be segregated. Despite the fact that big data technology is not yet mature enough to tackle all COVID-19-related issues, China has employed a data-driven strategy to ensure that individuals' health rights are met. The importance of big data in fight against the COVID-19 epidemic cannot be overstated. SARS-CoV-2 must be contained with an efficient and accurate response, and technology is critical to achieving this goal. Some of the more successful initiatives to contain the problems have been orchestrated by China[10]. The importance of big data technologies in preserving the right to health, on the other hand, cannot be emphasised. Faced with the risks to privacy posed by big data, regulators should work to mitigate the technology's detrimental impact on privacy. The Chinese government should strike a balance between the right to health and privacy requirements; improve its legal systems to protect personal information and privacy, including making it easier for wronged individuals to be held accountable; and raise administrators' and the public's awareness of personal information and privacy protection. The benefits and security of big data technology are well understood by Chinese policymakers. The Data Security Law of the People's Republic of China, which was passed on June 10, 2021, has three basic goals: to govern data handling, protect data security, and stimulate the development and exploitation of data.

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