

The Distribution Inefficiency of Medical Resources in China: A Literature Review

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ABSTRACT

Contemporarily, the distribution inefficiency of medical resources in China is a dramatical issues puzzling the Chinese government. In this paper, the issue will be reviewed detailly with corresponding suggestions in terms of handling the problems. Specifically, the progress in last decade of such issue is introduced (e.g., creating new commute system, diagnose system, and locations for the hospital) and other objects relevant to the issue are discussed including the cause of the gap and possible solutions. Generally, literatures from information retrieval are separated into 4 parts: (1) the equal universal medical care move, (2) the obstacles before and after the move, (3) medical care issues, and (4) potential results. Then, each part is discussed and demonstrated, respectively. Based on analysis, the distribution inefficiency of medical recourse in China desperately needs a solution urgently. These potential results shed light for latter who want categorized suggestions to create better solution for such worldwide problems.

Keywords: *Inequality of health; Health policy; Economic difference; Justice; Mindset; Disparity in health; insurance system.*

1. INTRODUCTION

Realization of equality has existed for a long time in all the countries around the world, and many talented scholars are devoted for solving the issue from the bottom. However, the day the solution will come out is still vague though researchers are working for a solution for decades.

Yuling, Pengfei, and Tianhon argued that inequitable access to health services is a topic on-trend all over the world, where China is not the only enduring country [1]. They have claimed that even though China has achieved the goal of health insurance for everyone, there is still a huge gap between the urban and rural areas in China. Besides, since China has been growing extremely fast in the last decades, where everything was started with cultivation, i.e., its rural area should be much more advanced than its urban area. Therefore, the problem that China has in this field is worth discovering

Many researchers have still doubted the existence of the problem, thinking that this is not a problem that this country is facing, but there are a massive amount of researches that have proven them wrong. Guhai, Jijia, and Tianhong have proved the existence of the problem by listing the percentage of health insurance coverage in

different hospitals in different areas.[2] Even though China has not only once improved the quality and the range of the various insurance, the problem still exists where the gap is even huge sometimes according to the data.

2. PROBLEMS CHINESE ARE FACING

2.1. The equal universal medical care

The literatures on the distribution inefficiency of medical resources are large and varied. Most of them are based on all kinds of the introduction of medical resources.[3] Overall, many other papers have been written to enlighten this issue, while most teams are unable to find a solution directly.

2.1.1 The causes of the equal universal medicare move

From the year 2000 to 2020, there is only one major attempt that has been tried by Chinese government to shrink or diminish this gap, which has been existed for a long period that leads to lots of damage. The measures are so-called the “equal universal medical care” move, which is caused by the disadvantage of universal

medical care. Since medical service is a big part of medical care, medical care should not be restrained by people's income, level of wealth, race, geographic position, and other personal qualities.[4]

2.1.2 The existence gap for rural and urban area

Researchers indicated that people who live in rural areas have a larger possibility of getting respiratory diseases and heart diseases.[5] However, the attention of medical services that they are getting is less than the people who are living in a "safer" place. Besides, the people who are living in rural areas are paying more fees due to the higher percentage of self-paying. Based on these factors, China has decided to make a change in 2009.

2.1.3. The result of the equal universal medical care move

Yuegeng and Jing Huang analyzed the condition of China after the "equal universal movement".[6] According to the results, it is not admiring where the payment difference has only shank 2%, which is far from expectation.

2.2 Obstacles that will stop china's progress

2.2.1 Formation of the unequal distribution

Even though China has tried to shrink the gap for all kinds of people, the difference is still there. In addition, most of them have based their comparison on social-economic states, moral points of view, social welfare, geographic position, genders, properties, and other economic positions to analyze inequality in health. [7]

2.2.2 Existence of the unequal distribution

Previous theoretical development has revealed the existence of the unequal distribution. The impact of basic medical insurance compensation ratio on medical expenditure inequality between the urban and rural areas is a major issue among lots of the cities in China., The reason can be ascribed to two major factors. The first one is geographic difference due to the social-economic status and the other one is different policies for different places. Lingling and Ji Jie are early distributors of this topic.[8] They had their focus on whether income difference is a factor that affected the unequal problem. They did their research in early 2000 when this concept is still new for most people, which proves that this is a factor of the problem and the problem really existed. Later in the era, another two pieces of research fit the topic is wrote by Jei li, which discussed the problems that they are facing before during, and after the movement as well as the problem towards the new changes and the obstacles that the country might face as

a whole. This paper was posted in 2015, which is also the year that the Chinese government is about to make another move in this field. In the research, it is argued that medical care affects people's happiness and dignity directly. Based on the fact that hospitals are making profits from their patients, the big hospitals will always get bigger due to their size and their fame, i.e., those new hospitals will have no patients and eventually die out. This system enlarges the gap and divides the hospitals into two dead ends. One is that the hospital is growing bigger and getting more fame so lots of people want to go there because they want to get better treatment. However, their waiting time and the costing money is what they are troubling on since everyone wanted to go to the hospitals with higher reputation. Another dead end is the small hospitals will have no patient and eventually bankrupt, though they are able to provide medical services as well. After realizing the problem, another solution came out, which is to distribute patients equally to different hospitals. However, that leads to another problem: no one wanted to go to those small hospitals for their treatment. Thus, more solutions are needed. Throughout William C.L. Hsia's paper, the problem caused by the gap between the rich and the poor as well as some solutions that unlikely will solve the issues have been discussed.[9] Nevertheless, he didn't do any specific experiment that is going to guarantee something will work. However, he still provided some problems and challenges that China is facing, and giving the experience to other developing countries. i.e., they can get through it quicker and faster. It encouraged all levels of health facilities to rely on user fees to support their operations, and that is one of the problems that discussed earlier in this paper. Due to this way of thinking, this problem became one of the biggest problems that China have to face. Jei li is the one who further confirmed this problem and came up with a solution that leads to another problem. However, that problem could be worse if the Chinese government was not controlling the price of the medicine.

2.3 Innovated problems that researchers encountered

2.3.1 Community health service is crucial

Lulin, long xu, and Linna discussed the problems that a city in China called Jiangsu has.[10] The main problem is that no actual claims were made and no point was created because it didn't solve any problems. The paper was just like what most researchers did, which is talking about the problems.

The method that researchers used was to split Jiangsu into 3 places- developed, developing, and undeveloped places. Created a specific report based on their medical resources' technique and scale efficiency, and analyzed the areas with data envelopment analysis.

The capital inputs of Community Health Centers to comprehensively determine the technical and scale efficiency of community health resources in 3 zones in Jiangsu Province. The result demonstrates that the gap is obvious between those three areas that they have split based on their environment. Specifically, the problem is that the undeveloped areas are not growing at all, while the developed areas are growing too fast.

Fortunately, some possible solutions for Jiangsu are provided. The government of China in general and Jiangsu province could improve the efficiency of health resources allocation by improving the community health service system, rationalizing the allocation of health personnel, optimizing the allocation of material resources and enhancing the level of health of financial resources allocation.

2.3.2 Eternal and children are suffering as well

Tao Zhang, Wei Lu, and Hongbing have only mentioned the problems on medical resources efficiency on eternal and child, but they did not talk about the solutions in the paper.[11] The distribution inefficiency is there, but in this time era, there are only mere researchers who can provide solutions that are still concepts. As the paper said, children and women's health can reflect the quality for others, there is more than one-third of the population are women and children, and women's medical care is what the government have mostly paid attention to. Hence, there aren't larger issues over here, but there is still space for improvements.

The researchers' method was that 33 district- and 84 county-level MCHHs were selected from Jiangsu Province in 2017. In the first stage, a guided data envelopment analysis model is established to calculate the technical efficiency, pure technical efficiency, and scale efficiency of district and county hospitals. In the second stage, the determinants are determined by the bootstrap truncation regression method, and the estimated efficiency score is regressed with the internal and external environmental factors of the hospital.

2.3.3 Better commuting system is needed

Many research has mentioned the point that the problem exists, but a research paper published in 2013 written by Ruishan Hu and his team was the few teams who have brought the rural and urban areas into the topic.[12] The previous researchers were all about geologic differences created by their social-economic status. However, this one has talked about how remote areas have a huge impact on people who really wanted to seek medical resources. Ruishan has defined the meaning of rural areas and given much data to verify the feasibility for some places to create more hospitals.

Moreover, changing the commute system is another idea brought up by Ruishan and his team in 2013. His team has used a city in China called Jiangsu as their target. The O-D matrix of the GIS extended model is used to calculate the shortest travel time from the hospital to the village. This matrix can be used to estimate the possibility of reaching medical services, and the calculation results can be used to find different medical potentials. Finally, the results of the study show that 69% of the city's villages have a lower potential for medical support than urban villages, while 79% of villages have a lower potential for medical support than urban areas. Most villages do not have access to medical services, i.e., changing the commuter system may be a way to make it easier for people to seek help.

2.4 Problem from the citizens

2.4.1 People's Income

Liangshu and Zinai enhanced the point that the previous team has brought up about whether income will differentiate the result.[13] This research has based its information on CHNS,'s data and analyzed it based on time period discussing whether the income difference will influence medical services. They have separated the changes in health inequality or medical service utilization inequality in each period into changes related to the position of individuals in the income distribution, and health status or medical service utilization of residents with different income levels. The latter is the usage of liquidity in health or medical services. The result is that the difference created by income matters, and the medical services and the healthcare received by people will differentiate as well.

2.4.2 People's Mindset

Qun Gong and Junqun Wang mentioned that many Chinese have an unusual mindset (the poorer the better), which has maintained for a long period of time, and slowed the progress of the rural area down.[14] However, this kind of mindset varied after the rural areas' revolution. In the mental stage of the new rural area revolution, people have changed their unusual mindset and changed to a new mindset that is able to provide them profit and help the rural area grow closer and closer towards the urban area.

2.4.3 The Reality of the Country

Qun Gong and Junqun Wang mentioned that the competition between hospitals has changed a lot so far. People are treating hospitals more like a profit facility than a nonprofit organization. Many doctors can let their patients suffer in front of them if they don't pay enough money. Many patients have died due to the lack of money, the worst part of this is that lots of doctors are

not treating those poor patients with the right attitude. However, this changed after the Sichuan earthquake. Hundreds of doctors have worked hard at the front line, saving thousands of lives. This scene is telling all the Chinese that the core concept of being a doctor has never changed.

3. CONCLUSION

In summary, this paper reviewed the distribution inefficiency of medical resources in China and explained the problems and issues that China itself might be facing. In detail, this paper showed many perspectives and examples of this major problem that has been existed for decades. Firstly, equal universal medical care was introduced and the reason that causes the reformation as well as the result were also mentioned. Secondly, the history of such problems and the reason that causes the problems have been touched on as well. Thirdly, some specific examples and some states have been established in the meantime. Last but not least, there are lots of factors that won't cause the problem, but they are capable of impact the result and form the issues. These findings could be a good reference for those who plan to contribute to future distribution inefficiency studies all over the world. In addition, it is hoped that the results of analysis and solutions could be helpful to policy decision makers in order to wipe out the problem.

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