Research on the Payment Method of Medical Insurance—A Case Study of Chiping County in Liaocheng City

Yan-fei LIU¹,a,* and Wen-jing ZHANG²,b

¹Institute of political science and law, University of Jinan, Jinan, Shandong, China
²Research Office, Women's Development Research Center of Shandong Province, Jinan, Shandong, China

a441684948@qq.com, b23052601@qq.com

*Corresponding author

Keywords: Medical insurance, Payment method, Prospective payment system, Post payment system.

Abstract. Since the reform and opening up, medical insurance system in China has made great achievements. As the focus and difficulty of medical insurance management and reform, the payment method of medical insurance has attracted increasing attention. Based on the semi-structured interview data of chiping county, the status quo and development trend of the payment method of medical insurance in China are discussed. It is found that the current payment method of medical insurance in China is mainly based on the payment by service items, which belongs to post payment system. The development trend of payment method is changing from single payment method to mixed payment method, changing from post payment system to prospective payment system, emphasizing and promoting payment by disease type and increasing the application of diagnosis related groups-prospective payment system. Late payment and insufficient payment restrict the payment method from post payment system to prospective payment system. The payment method of medical insurance determines the level of medical expenses, the flow of medical resources, the income of medical institutions and the quality of medical services, which will be one of the key factors affecting the success or failure of medical insurance system in China.

Introduction

The payment method of medical insurance usually refers to the way that the insurance company acts as a third party to pay medical expenses to medical institutions, doctors and drugstores on behalf of the insured. According to the chronological order of payment, the payment method can be divided into prospective payment system and post payment system. Prospective payment system is a payment method that the insurer pays the expense of medical insurance to the medical service provider according to the number of services and the payment standard after the occurrence of the medical service, such as payment by disease type, payment by number of people, total budget system, wage system and diagnosis related groups-prospective payment system. Post payment system is a payment method that the insurer pays the expense of medical insurance to the medical service provider according to the payment standard established in advance before the occurrence of the medical service, such as payment by service items and payment by quota.

At present, international payments to hospitals are generally based on total budget system and payment by disease type, payments to specialists are based on payment by service items, and payments to primary health care are based on payment by number of people. Due to the need of
maintaining stability in the early stage of China, our country have adopted the payment by service items with strong controllability and simple operability. In the later stage, in order to cope with the acceleration of aging of population and the rapid growth of national health demand, some developed regions in China introduced various payment methods such as payment by disease type. In 2018, the General Office of the State Council issued "Key Tasks for Deepening the Reform of the Medical and Health System in the Second Half of 2018", which pointed out that the reform of payment by disease type should be fully implemented nationwide, the number of diseases included in the payment by disease type should be gradually increased, and diagnosis related groups-prospective payment system should be carried out on a pilot basis. By 2019, the reform of post payment system has been promoted nationwide and implemented as an important means of poverty alleviation through health care.

The reform of the payment method is of great significance, even affecting the success or failure of the medical insurance system. Each payment method has its own advantages and disadvantages. It will have different economic consequences and influences on medical institutions, doctors, drugstores, the insured and the insurer. This is the focus and difficulty of the social medical insurance management and reform. The payment method determines the level of medical expenses, the flow of medical resources, the income of medical institutions and the quality of medical services. The payment method of medical insurance in Chiping county has developed steadily in the past few years, and has made remarkable achievements. Its unique research value attracts the author to take it as the subject of this paper. In addition, this research will be beneficial to establish the theoretical foundation for the medical insurance mode in Chiping county, and to explore the development trends and implementation difficulties of the payment method of medical insurance in Chiping county in the future.

Literature Review

On the basis of sorting out relevant social scientific literature, the author summarizes the viewpoints of scholars on the payment method of medical insurance. The summary is as follows:

First, the development trend of payment method: In “Study on the Optimal Choice of Medical Insurance Payment Method Based on Game Theory”, based on game theory, Multiple payment method, which prospective payment system dominates, is the best choice for payment method of medical insurance.[1] In “An Empirical Analysis of the Total Prepayment of Medical Insurance for Special Diseases in Outpatient Clinics”, it suggests that the medical insurance administration should explore and establish a scientific and reasonable payment by disease type based on the incidence of local diseases and medical expenses, so as to avoid excessive medical treatment.[2]

Second, the characteristics and comparison of all kinds of payment methods: In “Progress and Implications of Payment by Service Unit in Japan”, this paper analyzes the background, coverage, charging standard, effect and other aspects of Japan's daily charging system, and provides reference experience for China's reform of payment by service items.[3] In “A Preliminary Study of Value-oriented Medical Insurance Payment: A Case Study of Typical Value-for-money Projects in China and the United States”, this paper expounds the connotation and significance of value-based payment, and compares and analyzes the similarities and differences between "value-based medical service purchase project" of American Mediacre and "performance-based payment project" of liver transplantation in Zhejiang province of China from three perspectives.[4]
Third, the expense-control effect of all kinds of payment methods: In “Reform of Medical Insurance Payment Mode and Control of Medical Cost”, the results showed that the reform of total budget system did not significantly reduce the hospitalization medical expenses, but reduced the medicare payment by 5.76% and increased the patient payment by 7.01%. The effect of the reform on the cost control of primary hospitals conforms to the policy objectives, while the effect on tertiary hospitals is not ideal. In “Effect Analysis and Implementation Suggestion of Hospitalization Cost Control in DRGs Pilot”, the results show that the actual cost control effect of DRGs is still not ideal. The vigorous implementation of DRGs should not only establish standards based on DRGs itself to make it more scientific and reasonable, but also establish and improve the supporting mechanism based on the external conditions of DRGs to adapt to it.

To sum up, the reform trend of payment method of domestic medical insurance is from single payment method to multiple payment method, from post payment system to prospective payment system, promoting payment by disease type and increasing the application of diagnosis related groups-prospective payment system.

Research Method
This paper mainly adopts semi-structured interview research to analyze the development status of the payment methods of medical insurance.

The Time of Interview
From March 4, 2019 to April 14, 2019

The Location of Interview
Chiping county people's hospital, Chiping county second people's hospital, Chiping county hospital of traditional Chinese medicine, Chiping county third people's hospital, Haoji town health center, and Wenchen town community healthcare center. Among them, the first three are county-level medical institutions, and the patient groups they receive are mainly urban residents and urban workers. The latter three are township medical institutions, and the patient groups they receive are mainly rural residents in nearby townships.

The Object of Interview
The interviewees are some medical staff and patients randomly selected in 6 hospitals were, and they are relatively representative, which can provide more reasonable information for this paper.

The Content of Interview
The respondents were asked that their understanding of the current payment methods, where the current payment methods need to be improved, and the reform trend of payment methods in the future.

Status Analysis of Payment Method of Medical Insurance
In this paper, the author divides the medical insurance model from the perspective of expense payment into two dimensions: basic medical insurance model for urban workers and basic medical insurance model for urban and rural residents. Each dimension is subdivided into four measurement indexes: outpatient reimbursement, hospitalization reimbursement, serious disease reimbursement and chronic disease reimbursement.
The Current Situation of Payment Methods of Medical Expenses for Urban and Rural Residents

The content of this part comes from the author's semi-structured interview with the staff of six medical institutions in Chiping county.

Payment Method of Hospitalization Expenses for Urban and Rural Residents

Hospitalization reimbursement refers to the hospitalization medical expenses generated in designated medical institutions, except for accidental injuries and major diseases, which will be reimbursed according to the corresponding proportion after deducting the overall planning expenses and the starting line of payment. The beneficiaries of hospitalization reimbursement are the residents who participate in basic medical insurance for urban and rural residents. From the perspective of payment time, the payment by service items in the post-payment system is adopted to hospitalization for urban and rural residents, and the payment is made according to the quota difference calculated by the medical insurance bureau to the hospital. Besides, hospitalization reimbursement is settled at the end of the year, and the payment is paid once every three months.

Payment Method of Outpatient Expenses for Urban and Rural Residents

The payment process includes going to the outpatient clinic for medical treatment with the account book (or id card) and social security card, verifying the identity of patients by doctors, investigating diseases, issuing prescription drugs (laboratory form) and paying reimbursement. The object of outpatient reimbursement is the residents who participate in basic medical insurance for urban and rural residents. From the point of view of payment time, the outpatient treatment for urban and rural residents adopts the payment by service items in the post-payment system, which is paid according to 90% of the actual advance payment. Besides, outpatient reimbursement is settled at the end of the year, and the payment is paid once every three months.

Payment Method of the Expenses of Chronic Diseases and their Complications for Urban and Rural Residents

The medical expenses for chronic diseases shall be included in the reimbursement of medical insurance for urban and rural residents, and the outpatient expenses for clinical treatment of complications shall be included in the reimbursement of medical insurance for urban and rural residents. The medical expenses for complications shall not be included in the reimbursement, and the medical expenses unrelated to the treatment of chronic diseases and complications shall not be included in the reimbursement. From the perspective of payment time, the treatment of chronic diseases for urban and rural residents adopts the payment by service items in the post-payment system, which is paid according to 90% of the actual advance payment. Besides, chronic disease reimbursement is settled at the end of the year, and the payment is paid once every three months.

Payment Method of Medical the Expenses of Serious Diseases for Urban and Rural Residents

The essence of medical insurance for serious diseases is the second reimbursement. First of all, the accumulated medical expenses of outpatient service or hospitalization caused by serious diseases shall be reimbursed by medical insurance for urban and rural residents. Next, the serious disease medical treatment cost inside the regulation limits that needs to pay, serious disease insurance undertakes reimbursement. The beneficiaries are the residents participating in basic medical insurance for urban and rural residents. From the point of view of paying time, the treatment of
serious diseases for urban and rural residents adopts the payment by service items in the post-payment system, which is paid in full by civil affairs departments and insurance companies. Besides, the payment of serious disease reimbursement is paid once every month.

To sum up, the payment methods of hospitalization, outpatient service, clinical treatment of chronic diseases and their complications, and medical treatment of major diseases for urban and rural residents in Chiping county are all based on payment by service items in the post-payment system. At present, civil affairs departments and insurance companies do not pay for medical institutions in time and the actual proportion of payment is not high.

The Current Situation of Payment Methods of Medical Expenses for Urban Workers

The content of this part comes from the author's semi-structured interview with the staff of six medical institutions in Chiping county.

Payment Method of Hospitalization Expenses for Urban Workers

When the patient is discharged or admitted to hospital, he/she shall go through the relevant procedures of admission and admission registration at the medical insurance management window of each designated medical institution by holding the IC card of medical insurance. When be in hospital, the patient needs to pay the deposit of medical treatment fee in advance, return more when discharge checkout less fill. From the perspective of payment time, the payment by service items in the post-payment system is adopted to hospitalization for urban workers. The payment is usually delayed for one month, and the bill of the current month is submitted, and the fee of the previous month is allocated, and 5% of payment each month is reserved.

Payment Method of Outpatient Expenses for Urban Workers

The reimbursement procedure is the sick to take the original of the social security card or the id card to the designated health center in the district and apply for reimbursement by swiping the card. When the applicant applies for reimbursement of out-patient medical expenses, the funds transferred into the individual account of medical insurance in the current social security year shall be deducted first, and the amount of funds to be reimbursed shall be determined through examination and verification. From the point of view of payment time, the outpatient treatment for urban workers adopts the payment by service items in the post-payment system. The payment is usually delayed for one month, and the bill of the current month is submitted, and the fee of the previous month is allocated, and 5% of payment each month is reserved.

Payment Method of the Expenses of Chronic Diseases and their complications for Urban Workers

The medical expenses incurred in the purchase of drugs in the outpatient service of chronic diseases shall be settled immediately through the computer network, which shall be exempted from the standard of starting payment and shall be settled for the employees according to the corresponding reimbursement ratio. The employees only need to pay the part of the expenses borne by the individuals. The medical expenses incurred after the declaration of chronic diseases in the outpatient service and before the examination and approval shall be reimbursed only for the expenses incurred in the outpatient service of labor security for chronic diseases. From the perspective of payment time, the treatment of chronic diseases for urban workers adopts the payment by service items in the post-payment system.
Payment Method of Medical the Expenses of Serious Diseases for Urban Workers

First of all, the accumulated medical expenses of outpatient service or hospitalization caused by serious diseases shall be reimbursed by medical insurance for urban workers. Next, the serious disease medical treatment cost inside the regulation limits that needs to pay, serious disease insurance undertakes reimbursement. If the report can be submitted immediately, the patient can go to the medical insurance reimbursement window of the hospital to complete the reimbursement after going through the discharge procedures. On the contrary, patients should go to the branches of the People's Insurance Company (Group) of China in Chiping county to complete the reimbursement, according to the reimbursement regulations of the serious disease insurance. From the point of view of paying time, the treatment of serious diseases for urban workers adopts the payment by service items in the post-payment system.

To sum up, the payment methods of hospitalization, outpatient service, clinical treatment of chronic diseases and their complications, and medical treatment of major diseases for urban workers in Chiping county are all based on payment by service items in the post-payment system. At present, civil affairs departments and insurance companies do not pay for medical institutions in time and the actual proportion of payment is not high.

Comprehensive Evaluation of Payment Method of Medical Insurance

The current payment method of medical insurance in Chiping county is the payment by service items. The payment by service items, is the medical insurance institution according to the designated medical institution for the insured to provide the medical service item and quantity, according to the payment standard of each service item to the medical service provider to pay the medical insurance fee.

Advantages and Disadvantages of Existing Payment Method

Advantages: First, patients have more choices and are more likely to meet their service requirements; Second, it is consistent with the market rules, easy to operate and widely used; Thirdly, the income of the hospital is related to the service items and quantity provided by the hospital, and increases with the increase of the service quantity, so it is easy to mobilize the working enthusiasm of the designated medical institutions.

Disadvantages: First, there is a lack of effective incentive mechanism to enable the poor people to get rid of diseases as soon as possible and find new jobs after resuming their working ability. Second, it fails to take into account the fact that many poor people lack the basic savings needed to pay for health care. The third is the lack of cost control mechanism on both the hospital and the patient, especially the motivation of medical institutions to overreport or overserve.

Difficulties in Implementation of Existing Payment Method

First, the government or the insurance company does not pay in time. The payment is usually delayed for one month, the list of the current month is submitted, the cost of the last month is allocated, reimbursement is settled at the end of the year, and the payment is paid once every one or three months. Second, the government or insurance company usually pay inadequate amount, it is rare for the government or insurance company to pay the full amount. The payment is paid according to 90% of the actual advance payment, and 5% of payment each month is reserved. The two points above have seriously prevented Chiping county's payment method of medical insurance from changing from post payment system to propective payment system.
Conclusion

The domestic practice experience pointed out clearly that the payment by disease type is gradually recognized in our country. The development trend of payment method is changing from single payment method to mixed payment method, changing from post payment system to prospective payment system and increasing the application of diagnosis related groups-prospective payment system. Based on the investigation results of Chiping county, this article concludes that the payment method of medical insurance for urban and rural residents and medical insurance for urban workers, which can be subdivided into outpatient service, hospitalization, chronic diseases and their complications as well as major diseases, are payment by service items in the post-payment system.

On the one hand, the future payment method should implement "Key Tasks for Deepening the Reform of the Medical and Health System in the Second Half of 2018", which pointed out that the reform of payment by disease type should be fully implemented nationwide, the number of diseases included in payment by disease type should be gradually increased, and diagnosis related groups-prospective payment system should be carried out on a pilot basis. On the other hand, the future payment method should follow the four domestic development trends, including changing from single payment method to multiple payment method, changing from post-payment system to prospective payment system, paying attention to and promoting payment by disease type, and increasing the application of diagnosis related groups. In addition, we should take steps from the perspective of the users of medical insurance costs and the providers of medical insurance costs, so as to ensure that the expenses of medical insurance are paid in full and on time, and realize prospective payment system as soon as possible.

References

[1] Jia Qiong, Xu Feng, Wu Haibo, “Study on the Optimal Choice of Medical Insurance Payment Method Based on Game Theory”, Medicine and Society, 2020.

[2] Yang Qiao, Chen Dengju, Tian Mei et al, “An Empirical Analysis of the Total Prepayment of Medical Insurance for Special Diseases in Outpatient Clinics”, Health Economics Research, 2020.

[3] Zhou Jiahui, Wang Haiyin, Chen Duo et al, “Progress and Implications of Payment by Service Unit in Japan”, Chinese Health Resources, 2019.

[4] Simin Wang, Wei Xu, Zidan Cui, “A Preliminary Study of Value-oriented Medical Insurance Payment: A Case Study of Typical Value-for-money Projects in China and the United States”, Health Economics Research, 2019.

[5] Qu Tingting, Xie Naiqi, Yi Pei, “Reform of Medical Insurance Payment Mode and Control of Medical Cost”, Nankai Economic Research, 2019.

[6] Feng Hong, Zhang Yuxi, “Effect Analysis and Implementation Suggestion of Hospitalization Cost Control in DRGs Pilot”, Journal of Beijing Union University (Humanities and Social Sciences), 2019.