Research on Insurance Support for Poverty Caused by Illness in Aba Prefecture*

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Abstract—Aba Prefecture is a region with high incidence of Kashin Beck disease and hydatidosis. It is very common for residents in Aba Prefecture to suffer from poverty due to illness. In order to achieve the goal of poverty alleviation, insurance plays an important role as an important pillar of the financial industry. This paper starts with the mechanism and manifestation of insurance support for poverty caused by illness in Aba Prefecture, introduces the current situation of poverty caused by illness, poverty return and insurance support, finds out the existing problems and puts forward corresponding countermeasures and suggestions.

Keywords: Aba Prefecture, poverty due to illness, insurance

I. INTRODUCTION

In 2016, Aba Tibetan and Qiang Autonomous Prefecture established 606 poverty-stricken villages with 74000 poor people, including 29000 people who were poor due to illness and returned to poverty due to illness, accounting for 39% of the poor. Kashin Beck disease is prevalent in 12 counties and 95 towns of Aba Prefecture, and the number of patients accounts for 11.85% of the total population of the disease area. In addition, in recent years, the number of chronic patients in Aba Prefecture is increasing year by year. "Poverty due to illness and return to poverty due to illness" has become the main problem of poverty alleviation in Aba Prefecture.

As an important pillar of the financial industry, the insurance industry, by providing economic compensation to the insured who suffered losses due to illness, can reduce the residents' payment for serious illness, improve the residents' health level, and realize the increase of residents' income. Since 2016, Aba Prefecture Government has successively issued health poverty alleviation policies such as improving medical insurance compensation standards and serious illness supplementary commercial insurance, to minimize the burden of poor patients' medical treatment, and actively solve the problem of "poverty due to illness, and poverty due to illness".

II. REVIEW OF RELATED RESEARCH

A. Relevant foreign research

There are few literatures about insurance poverty alleviation abroad. Paulo Santos & Christopher B. Barrett (2006) pointed out that capital, as a factor of production, is more important for the poor. In order to avoid the poverty trap, it is an inevitable way to build a capital safety net to ensure the smooth circulation of elements by relying on the insurance mechanism. If there is no such mechanism, there should also be an informal "quasi insurance system" to play a role. Stefan Dercon, Tessa Bold & Cesar Calvo (2006) pointed out that the risk of no insurance coverage will solidify poverty both in the short term and in the long term. Providing insurance to the poor can meet their credit and savings needs and build the institutional foundation for comprehensive risk prevention. They proposed to provide low-cost, customized insurance products for the poor by encouraging poor communities to establish alliance with insurance companies; governments, other financial institutions, guarantee institutions as important subjects should participate in it. Syed A.H., Jennifer R. & Paul M. (2011) found that health insurance plays a role in improving the income and stabilizing the income level of the poor, encouraging them to expand productive investment and reducing the incidence of poverty, but questioned the financial sustainability and medical service quality of such insurance.

B. Relevant domestic research

In recent years, the research on insurance poverty alleviation mainly focuses on advantages, models, difficulties and strategies.

1) Advantages of poverty alleviation through insurance

Liao Xinnian (2012) pointed out that the insurance mechanism has unique advantages in supporting rural poverty alleviation and development: it can multiply the effectiveness of poverty alleviation funds, improve the ability of poverty-stricken people to resist risks, adjust the interest distribution relationship, and improve the financial ecology in poverty-stricken areas. Wu Yan (2017) proposed to enlarge the investment effect of financial funds for poverty alleviation through the system design of "joint insurance for

*Fund: Cultural Industry Development Research Center of Sichuan's Key Research Base of Social Sciences (WHCY2019B03)
agriculture, rural areas and farmers” and "risk sharing” of poverty alleviation loans. Li Yuhua (2017) believes that insurance has advantages in mechanism, service, capital and other aspects to help targeted poverty alleviation, which helps to improve the risk management and control ability of poverty-stricken areas, the benefit adjustment function helps to promote the innovation of poverty governance mode, the financing function helps to "transfuse" and promote "hematopoiesis" in poverty-stricken areas, and the leverage function helps to enhance the use effect of poverty alleviation funds.

2) Insurance poverty alleviation model

Lv Yan (2015) proposed that "insurance plus" will become the main way of targeted poverty alleviation. For example, "insurance + credit", "insurance + futures" and other ways, the combination of insurance and agricultural industry can help poor areas to accurately develop related industries. Wu Yan (2016) mainly based on the "Fu ping model", systematically combed the development ideas of insurance poverty alleviation, and believed that the continuous support of governments at all levels was necessary to ensure the effect of insurance poverty alleviation and development. Through the joint insurance of agriculture, rural areas and farmers, the system design of "risk sharing” of poverty alleviation loans, enlarged the investment effect of financial funds for poverty alleviation. Li Qining (2018) inspected the "Lan kao mode” and pointed out that the replication mode was restricted by the adequacy of government investment funds, whether the poverty alleviation model was stable or whether the insurance company had financial sustainability. Wu Chuanqing (2018) and others divided the path model of targeted poverty alleviation by insurance into agricultural industry insurance poverty alleviation model, health insurance poverty alleviation model, education insurance poverty alleviation model and social poverty alleviation model.

3) Difficulties in poverty alleviation through insurance

Zheng Wei (2018) believes that the development of agricultural insurance lags behind, covering a small area, covering a small range of insurance, and the operating costs of insurance institutions are large, which restrict the development of insurance poverty alleviation. Zhao Wenxin (2014) believed that the agricultural risk is large, the ability of the rural poor to resist various risks is limited, and the phenomenon of adverse selection or moral hazard exists seriously in the rural areas. These factors will affect the development of insurance poverty alleviation. Yu Yan (2017) believes that the financial support of local governments is insufficient, and local financial subsidies at all levels cannot be put in place in time, which also restricts the development of agricultural insurance poverty alleviation.

4) Insurance poverty alleviation strategy

Guo Shengchen (2015) suggested that we should vigorously explore the new model of insurance poverty alleviation, guide and increase the flow of credit funds into poverty-stricken areas by giving full play to the functions of insurance risk dispersion and credit. Wang Sangu (2016) thinks that the most important way to help the poor proposed by the central government is to develop industries to help the poor, especially characteristic industries. To improve the income channels of the poor to solve the problem of poverty, the development of industries needs the strong support of insurance, and the targeted poverty alleviation of industrial insurance needs constant innovation of mechanisms and practices to improve the efficiency of poverty alleviation of insurance industry, so as to explore a new way Insurance with Chinese characteristics helps the road of targeted poverty alleviation. You Jun (2017) believed that insurance poverty alleviation should be based on its functions and responsibilities, according to the characteristics and needs of the poverty alleviation objects, and through differentiated and refined policy support, the poverty-stricken people identified accurately should be covered by social insurance, especially basic endowment insurance and basic medical insurance, so as to ensure as much as possible.

To sum up, the overseas research on insurance poverty alleviation, due to the limited search ability, is not rich in information collection, and has little significance for reference. Domestic research on insurance poverty alleviation focuses more on agricultural industry insurance. In terms of research content, more attention has been paid to the advantages, difficulties, strategies and models of insurance poverty alleviation, while less attention has been paid to the mechanism and manifestation of medical insurance poverty alleviation. Based on this, this study focuses on the mechanism and manifestation of medical insurance poverty alleviation. Based on the introduction of the current situation of poverty caused by illness and the analysis of the effect of insurance support for health poverty alleviation in Aba Prefecture, it finds and summarizes the existing problems of insurance poverty alleviation in Aba Prefecture, and puts forward feasible countermeasures and suggestions.

III. MECHANISM AND MANIFESTATION OF INSURANCE SUPPORTING POVERTY ALLEVIATION

A. Mechanism of action

1) The mechanism of poverty caused by illness

Poverty due to illness refers to the decline of family income or the ability to obtain income, which leads to poverty. The specific mechanism is shown in "Fig 1".
When someone in the family gets sick, the first thing that affects the family's economic situation is the family's economic situation. The economic situation will generally change in three aspects. The first is to increase family expenditure, mainly for medical expenses. The second is to reduce the income of the family. When the family members are sick, they can no longer work, and their income will be reduced. In order to take care of the sick family members, other members will also affect their work, thus reducing their income. Third, reduce household assets. In the face of medical expenses, the initial response of families is to reduce family expenditure and use the existing cash to deal with it. When the family's cash is not enough to pay for medical expenses, the family will often use household savings, loans, change the seller's livestock, agricultural tools, land, housing and other household assets to deal with, thus reducing family assets.

Secondly, when family members are ill, it will affect the human capital status of the family. Only in a healthy state can we engage in productive activities and create income. When family members get sick, the human capital of patients themselves will be reduced, and the family income will be reduced. If the disease cannot be cured in time, it will affect the long-term family economic situation in the long run. In addition, the illness of family members will reduce the human capital of other family members. On the one hand, because of the decrease of income, the nutrition of family members is not guaranteed, and the health vulnerability is enhanced. On the other hand, because of the decrease of income, the expenditure of education investment will be reduced or even reduced to zero, which will affect the sustainable development ability of families and have a long-term negative impact on their income.

2) Mechanism of insurance to solve poverty caused by illness

As can be seen from "Fig 2" below, through basic medical insurance, serious illness insurance, commercial insurance and other measures, the direct economic burden of disease of patients' families can be reduced. With the support of insurance, the medical expenses of patients can be reimbursed after they get sick, which can help them enhance their anti-risk ability, enhance their family's economic ability to deal with the disease, and alleviate the difficulties caused by the disease. In addition, because of the support of insurance, the family's expenditure has been greatly saved, more money can be used for other investment, and human capital has been added value. With the increase of income, the status of families in groups and society has been improved accordingly. The regional economy has grown and the society has maintained stability and harmony.
B. Form of expression

At present, the main forms of insurance support for poverty caused by illness are basic medical insurance + serious illness insurance, which complement each other and form a guarantee force. There are mainly the following aspects: first, the new rural cooperative medical system covers the poor in Aba Prefecture. The part of the premium that needs to be paid by individuals shall be fully or partially subsidized by the finance, so as to reduce the insured burden of the poor. At the same time, within the scope of the policy, we will increase the proportion of reimbursement for hospitalization expenses of the poor. The eligible medical rehabilitation projects for the disabled shall be included in the payment scope of basic medical insurance according to the regulations.

Second, the support for serious illness insurance has been increasing. Through policy based serious illness insurance and commercial supplementary insurance for serious illness, the serious illness in the list of poor people can be treated. By gradually reducing the starting line of serious illness insurance and increasing the proportion of reimbursement for serious illness insurance, we will implement more accurate payment policies to improve the benefit level of the poor.

IV. CURRENT SITUATION OF POVERTY CAUSED BY ILLNESS AND INSURANCE SUPPORT IN ABA PREFECTURE

A. Poverty caused by illness in Aba Prefecture

According to the 2018 Sichuan health and family planning Yearbook, the number of poor people in Aba Prefecture in 2016 was 11400. In Aba Prefecture, the health and Family Planning Commission investigated 419 poor families and 1244 people who were poor or returned to poverty due to illness. The basic information is shown in "Table I" below.

| Type                                    | Scale |
|-----------------------------------------|-------|
| The family’s original economic foundation is fragile and the poverty caused by ordinary diseases | 50%   |
| The original economic base of the family is medium, and the poverty caused by major diseases | 5%    |
| The family was originally rich, and the poverty caused by major diseases | 3%    |
| Poverty due to long-term chronic diseases | 35%   |
| Poverty due to disability               | 6%    |
| Poverty due to mental disorders         | 1%    |

The top five diseases were hypertension and its complications, accounting for 18.61%; gastrointestinal...
diseases, accounting for 8.14%; lung diseases, accounting for 8.09%; various heart diseases (including congenital heart diseases), accounting for 4.2%; fracture of various parts, accounting for 3.75%.

The top 4 diseases in medical expenses are: blood diseases (leukemia, septicemia, etc.), malignant tumors, renal insufficiency (or failure), various heart diseases (including congenital heart disease).

B. Current situation of insurance support in Aba Prefecture

1) The number of medical insurance participants increases year by year

![Fig. 3. Number of medical insurance participants in Aba Prefecture in 2015-2017.](image)

As can be seen from "Fig 3" above, from 2015, the number of medical insurance participants in Aba Prefecture increased year by year, especially in 2017, the number of insurance participants rose sharply, reaching 877499.

2) Proportion of hospitalization and medical expenses borne by individuals decreased

In 2015, 108132 people were compensated for hospitalization in the whole Prefecture, the hospitalization rate was 15.92%, the fund expenditure was 250,6092 million Yuan, the per capita compensation was 2317.62 Yuan, the actual compensation ratio was 63.71%, and the individual was responsible for 36.29%.

In 2016, there were 8671 inpatients in 13 poverty-stricken counties (cities) of the whole Prefecture, with a total hospitalization cost of 49,395 million Yuan, an actual reimbursement of 42,0528 million Yuan, and an individual self-financing of 7.3422 million Yuan. In 2016, 14.86% of the medical expenses of the poverty-stricken inpatients were borne by themselves, down 21.43% from 2015 (See "Table II" for details).

TABLE II. HOSPITALIZATION EXPENSES OF POOR PEOPLE IN ABA PREFECTURE IN 2016

| Project                           | Within the county | Outside the county |
|----------------------------------|-------------------|--------------------|
| Hospitalization person-times     | 6124 inpatients   | 2547 inpatients    |
| Proportion of total inpatients in the whole Prefecture | 70.63% | 29.37% |
| Total medical expenses           | 1942.59 million yuan | 2996.91 million yuan |
| Proportion of the total cost of hospitalization in the whole state | 39.33% | 60.67% |
| Actual reimbursement amount      | 1857.73 million yuan | 2347.55 million yuan |
| Personal expenses                | 84.86 million yuan | 649.36 million yuan |
| Proportion of personal expenses  | 4.37%             | 21.67%             |

It can be concluded from the above data that insurance poverty alleviation in Aba Prefecture has achieved certain results. With the annual growth of the number of insured people, the proportion of poor patients' self-financing medical expenses is also on the decline, but the problem also exists.

V. PROBLEMS OF INSURANCE SUPPORT FOR POVERTY CAUSED BY ILLNESS IN ABA PREFECTURE

A. The burden of medical treatment outside the county is heavy, and the cost of special disease outpatient maintenance treatment is high

It can be seen from "Table II" above that there are still many poor people who will choose to see a doctor outside the county after they get sick. The total medical expenses are high, and the personal expenses are much higher than those in the county. This part of the poor patients can not enjoy the same full reimbursement policy as the treatment in the county. Therefore, when the poor suffer from serious diseases and have to seek medical treatment outside the county, the role of medical insurance is not obvious.

In addition, patients with special diseases often need long-term maintenance treatment after discharge, and the cost of maintenance treatment usually needs tens of thousands of Yuan, which makes the economic burden of poor patients more severe.

B. There are not many types of insurance for poor areas

For a long time, the market of insurance companies has been mainly concentrated in developed areas, and the poor areas have been neglected. The development of insurance market in poor areas is relatively backward. Moreover, the development and design rights of insurance products are generally controlled by the headquarters of insurance companies. It is very difficult for local branches to develop personalized insurance products and services according to the actual needs of poor areas and poor people for insurance.
products. The products are not rich and the degree of homogeneity is serious.

C. The combination between the components of the medical insurance system is not close, and the proportion of reimbursement is limited

First of all, the management departments of each component of the current medical insurance system in China are different. The human resources and social security department is responsible for the management of the medical insurance of the new rural cooperative medical insurance, and the commercial insurance company is responsible for the serious illness insurance, which causes the problem that the combination between various departments is not close. Secondly, medical insurance and NCMS reimbursement focus on basic medication, basic treatment and basic payment, and they have strict regulations on medical institutions, drug catalog and reimbursement proportion. Although the burden of medical expenses of residents' patients has been greatly reduced, for poor patients, medical expenses for serious diseases are generally high, even if the top line is cancelled and the reimbursement proportion is increased, still can't afford it.

VI. Suggestions

A. Improving the policy of supplementary commercial insurance for serious illness

We will further sort out and improve the supplementary commercial insurance policy for serious illness, and improve the compensation effect for the serious illness of poor patients. For the key diseases with heavy disease burden and exact treatment effect, single disease payment is implemented. Expand the standard and scope of reimbursement for outpatient service for special diseases.

B. Insurance companies speed up the development of supporting insurance products

Insurance companies should develop appropriate insurance types according to the needs of local residents in Aba Prefecture for disease insurance. By classifying and customizing insurance products and services to meet the needs of local residents to prevent poverty due to illness. We will focus on solving the problem that the poor people suffering from major diseases still need to pay for their own medical expenses after enjoying the reimbursement of new rural cooperative medical system and serious illness insurance, and effectively solve the local problem of "poverty due to illness and returning to poverty due to illness". In addition, insurance companies can increase insurance service outlets and expand the scope of services in Aba prefecture where the population is concentrated and there is potential for development.

C. Strengthening the effective combination of resident medical insurance, new rural cooperative medical insurance and serious illness medical insurance

In order to realize the effective combination of basic medical insurance and serious illness medical insurance, we should appropriately increase the proportion of reimbursement of basic medical expenses, increase the types of reimbursable diseases, and reduce the economic burden of basic treatment for patients with serious illness. On this basis, we should solve the problem of high starting line of NCMS reimbursement, expand the scope of reimbursable medical and treatment costs, improve the top line of high-value segments, and appropriately reduce the starting line. In order to strengthen the connection of the three, the special funds allocated from the residents' medical insurance and the new rural cooperative medical insurance should also be used to ensure the independence of the medical insurance for serious diseases and complement each other with the residents' medical insurance and the new rural cooperative medical insurance. In addition, we should gradually unify urban and rural security treatment, narrow the regional gap, ensure the fairness of medical insurance for serious illness, and effectively solve the problem of "one person gets sick, the whole family is difficult".

VII. Conclusion

Through the analysis of the current situation of insurance poverty alleviation in Aba Prefecture, we can see that insurance plays a certain role in the problem of poverty caused by illness, but there are still problems such as heavy burden of medical treatment outside the county, lack of insurance types, and limited reimbursement ratio, which have become obstacles for people in ethnic areas to advance on the road of accurate poverty alleviation. Governments at all levels and relevant insurance institutions shall actively formulate relevant policies and measures to effectively solve the problem of "poverty caused by illness and return to poverty due to illness" in Aba Prefecture, so as to ensure the smooth realization of the goal of precise poverty alleviation.

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