

Analysis and Suggestions on China's Commercial Health Insurance Innovation

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Abstract: In the new era, China's socio-economic level and medical health level have been greatly improved, and people's demand for improved health protection levels has also been accompanied by related "medical", "insurance" and "Great health" become a key word for people's livelihood in the future. Through a large amount of literature research, data analysis and information collection, we take the new opportunities faced by commercial health insurance in the era of national medical insurance policy reform and technological assistance as the starting point, and analyze the commercial health insurance how to innovate in products, service and industry integration and make relevant suggestions from the actual needs of customers.

1. Overview of the development of commercial health insurance

As an important component of China's medical insurance system, commercial health insurance plays an important role in China's medical system. The environment of China's health insurance is continuously optimized, and people's demand for health insurance is also increasing, accelerating the good development of commercial health insurance in many aspects. All in all, China's commercial health insurance is undergoing a transition from small to large, from weak to strong, and the health insurance market is showing a diversified competitive landscape.

1.1 The health insurance market is developing well

In recent years, the number of companies entering the health insurance market has increased on a large scale, and the products have become more abundant. This is of great significance to guiding the healthy development of these companies and reducing the government's financial pressure. The development of China's commercial health insurance has entered a high-growth stage. The data show (Figure 1): from 2009 to 2019, premiums increased from 57.4 billion yuan to 700.6 billion yuan at an annual growth rate of 28.5%.

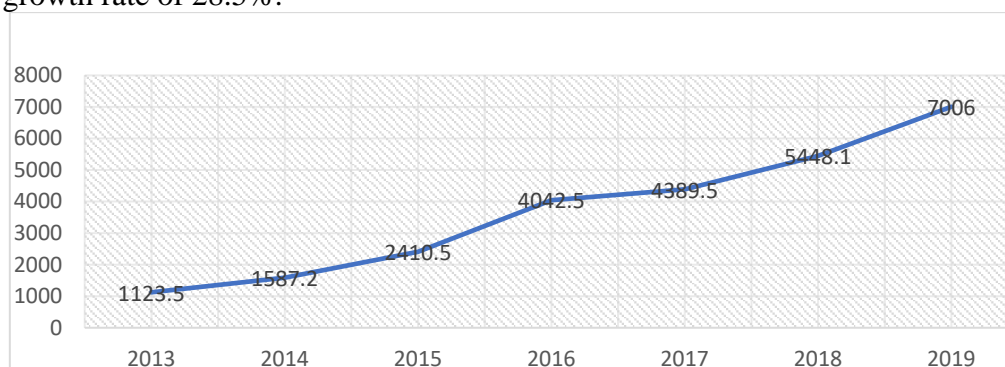


Figure 1 China's health scale premiums from 2013 to 2019 (unit: 100 million yuan)

1.2 The Chinese government attaches great importance to the development of commercial health insurance

In recent years, China has issued a series of favorable policies: the "13th Five-Year Plan" encourages participation in insurance, product development, strengthened supervision and risk control; and the "Opinions on Supporting Social Forces to Provide Multi-level and Diversified

Medical Services" proposes the concept of "health insurance + health management" combined and encourages the joint development of health insurance products related health management; and directly through the implementation of tax deferral and tax incentives to encourage people to purchase commercial insurance, which creates a good environment for the development of commercial health insurance.

1.3 China's commercial health insurance has great prospects

Currently, China has a huge demand gap in health insurance. The deepening of population aging (Figure 2) has increased the demand for health insurance; there are some diseases, items, drugs, etc. that are not reimbursed in China's medical insurance, such as oral cavity and imported drugs. These highlight the supplementary functions of commercial health insurance and play a great role in alleviating the pressure on social insurance. In addition, China's economy is in a stage of sustained and rapid development, and per capita income will continue to rise (Figure 3). Not only will the demand for commercial health insurance increase from the demographic structure and socio-economic level, its product types and services will undergo tremendous changes after the injection of new power such as blockchain, artificial intelligence and big data. The integration of resources and the integration of the health industry will achieve goals such as "health insurance + health management", integration and professionalization of management models.

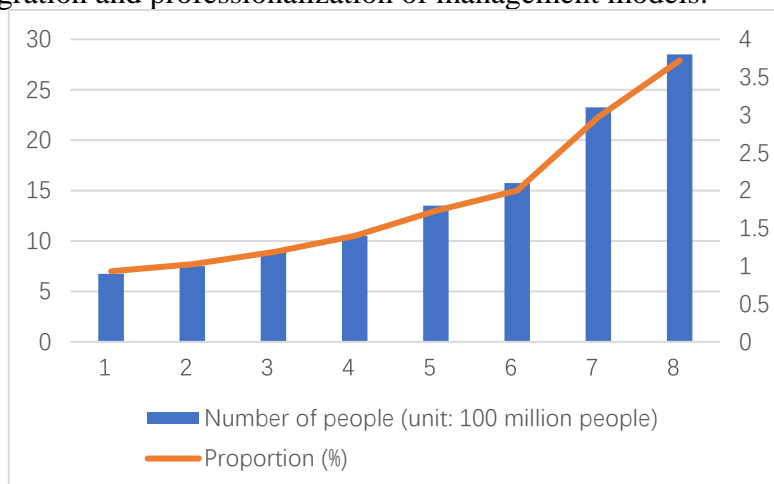


Figure 2 China's elderly population, proportion and trend forecast

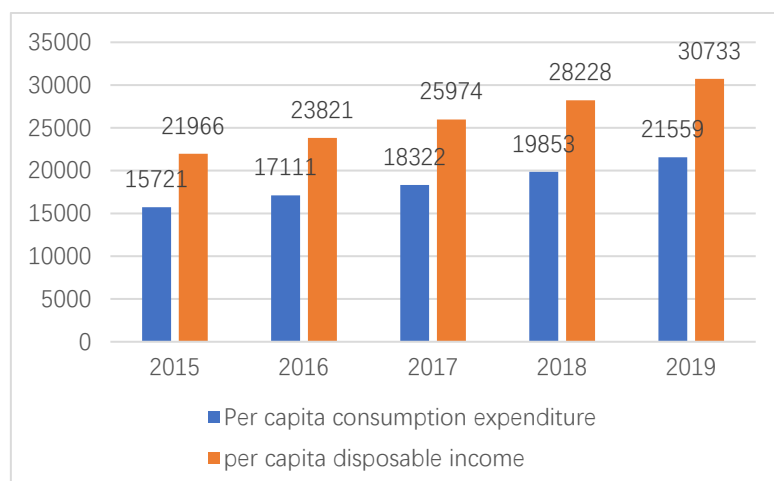


Figure 3 Per capita income and consumption of residents in China from 2015 to 2019 (unit: yuan)

1.4 The space for improvement and constraints facing the health insurance market

The difference in premiums between developed provinces (such as Guangdong) and relatively underdeveloped provinces (such as Qinghai) is more than 100 times (Figure 4). Therefore, the health insurance market still has great development potential. At present, China has basically achieved full

coverage of basic medical insurance; while the commercial insurance coverage rate is less than 1% (less than 10% of developed countries). The per capita premiums of developed countries are 3-10 times that of China, so the health insurance market still has a lot of Great room for future improvement.

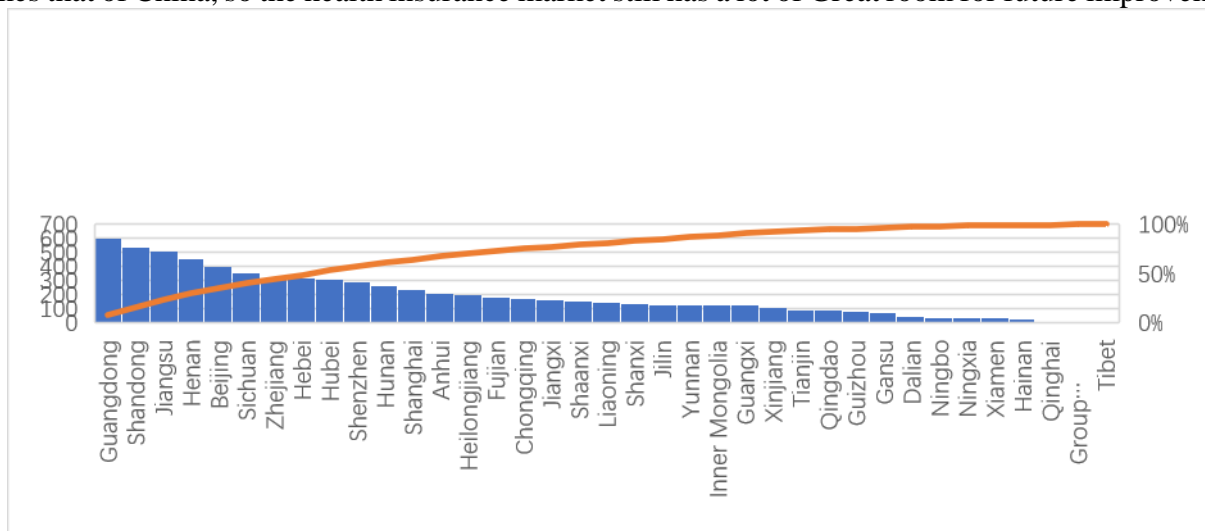


Figure 4 Health insurance premium income of all provinces and cities nationwide from January to October 2020 (unit: 100 million yuan)

A major difficulty of commercial health insurance now lies in the acquisition of data. The public hospitals that are the main source have not strong intention to cooperate; while other cooperative institutions, although they are cooperative and friendly, the data is not complete. Data from different sources have different standards, and the degree of analysis is poor; in terms of management, data security has no relevant legal support to be regulated. These phenomena not only give customers a bad experience in services, but also lead to a series of problems such as regulatory loopholes and risk control. China's commercial health insurance has achieved breakthrough development. However, in our daily life, there are not so many types of health insurance and the service does not meet customer needs to a large extent. The following shortcomings are summarized: the market segmentation is not enough, and the insurance structure is seriously unbalanced, The phenomenon of homogeneity is serious; product structure and consumer demand structure are not balanced; service has time lag, underwriting and claim settlement is not convenient; data acquisition and management capabilities are poor, and there are big problems in risk control.

2. Demand puts forward innovative requirements for commercial health insurance

Through generalization, the main reason why people do not buy commercial health insurance is that they think they have basic medical insurance or other insurances. They already have basic medical insurance in terms of health insurance function, and they choose life insurance or property insurance when investing. Promote commercial health insurance to be differentiated and branded. In addition, part of the reason is the inability to understand the terms and the cumbersome claims settlement, which requires companies to launch more professional and more appropriate insurance products and put forward the requirements for automation and intelligence.

2.1 Product innovation

One of the main quotations is that the market for commercial health insurance is gradually becoming life insurance. This type of insurance has the dual functions of health protection and savings. In addition, the product needs to be enriched. In addition, the products must be enriched, and there is a serious homogeneity phenomenon, which lacks individuation and customization. The insufficiency of product services and risk control management capabilities is mainly due to the lack of data, which makes it difficult to develop and liquidate. The monopoly of medical data by each institution itself leads to the emergence of data islands.

Enrich insurance types and grasp market positioning. In the insurance market, data for 2019 (Figure 5) shows that illness insurance and medical insurance account for 99%, nursing care insurance and disability insurance account for a very low proportion, and the insurance types are seriously unbalanced. The existing market conditions are: the development of disease insurance is less difficult, and the market demand is high, and the profitability is good; the development of medical insurance and nursing insurance is small, the market demand is large, and the frequent loss orders sometimes make profits. We can go for both Increase development efforts. As for disability insurance, it is difficult to develop and the market demand is small, and it is basically unprofitable. Therefore, it needs to explore and develop. You can learn from Japan to increase medical long-term care insurance. According to accurate market positioning, all kinds of commercial health insurance will be balanced and enriched, so that more people with health protection needs can find more suitable insurance.

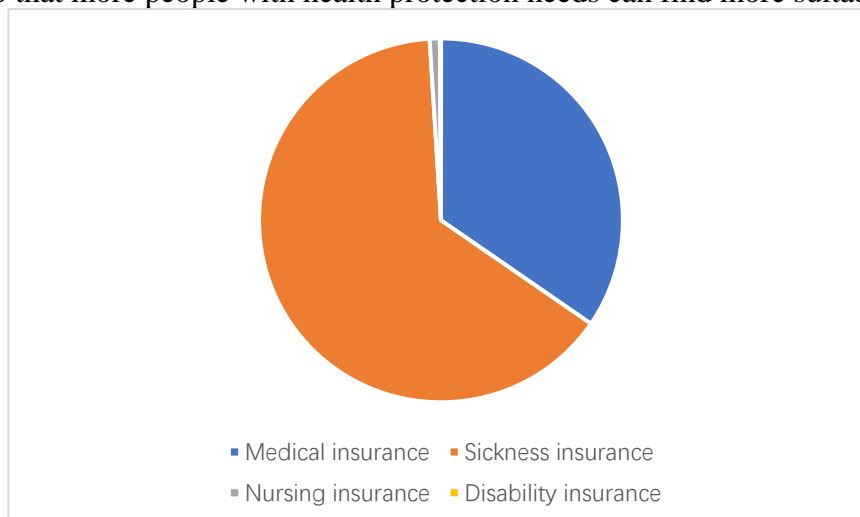


Figure 5 Distribution of premiums of various insurance types in 2019

Increase innovation and create branded products. The types of commercial health insurance products are roughly the same, and there is little difference for customers, and certain types are not preferred. At the same time, there are many business entities, and customers have no reason to choose commercial health insurance companies, such as health insurance with personal insurance and property insurance. Innovating product types, focusing on brand marketing and promotion, allowing customers to deepen their understanding and loyalty to commercial medical insurance companies and products, and promote business development.

Cultivate consumer habits. Adopt the "door-to-door" heuristic method, from small demand cultivation to large-value product sales, and reduce insurance products. Insurance experiences like free lottery on the Internet and free micro-insurance policies are all ways you can participate first and then learn more slowly, such as: Taikang life insurance Company's serious illness worry-free, one yuan micro mutual assistance, etc.

Make insurance products scene-oriented and life-oriented. First design a product that allows everyone to participate first, not only can dig out the movement data of the crowd, but also find the target group, which not only reduces the cost of market expansion, but also gradually transforms the crowd involved into consumption power. For example, smoking cessation insurance is to combine smoking cessation and insurance, and insurance and daily life are integrated into life; ZhongAn insurance company's innovative product "Bububao" is to link the number of exercise steps to the insured premium, which achieves differentiation and individualization. The pricing has achieved the effect of participating in popularization and realized the promotion of scenes. There are also Mi Sports and "Lepower" apps, and other related wearable devices, which can collect health data such as blood sugar, blood oxygen and weight, and are a good way to strengthen the combination of disease management and insurance.

Launched products jointly developed by the health industry. In the current "insurance + medical" industrial integration environment, products jointly developed by insurance companies and

medical institutions can strengthen the product's data acquisition capabilities and risk control capabilities. Health management-related insurance products embed health services in products, which can extend the value chain and increase customer viscosity.

2.2 Service innovation

Convenience of claims settlement methods. The quality and satisfaction or cumbersomeness of compensation services are important indicators for measuring insurance services. With the development of modern Internet technology and big data, the coherence of the data industry has been enhanced to bring about the timeliness and convenience of claims settlement services. For example, the intelligent underwriting and human-machine dialogue of Pingan Insurance company's online claims app form an integrated data link of "service + product" in health insurance, making underwriting smarter and making claims payment more convenient.

Extend the service chain and make the development of health insurance center on health needs. For example, smart triage, telephone doctors, physical examination, health consultation, rehabilitation, etc. These series of arrangements and plans for health or medical services can expand the service chain, not only help customers and build loyalty, but also reduce costs and collect accurate data to lay a good foundation for theoretical actuarial calculations and pricing. Improving health management services, such as chronic disease management, helping clients establish standardized health behaviors and providing timely medical or health services, can greatly help their disease control and rehabilitation.

Intelligent and self-service. In the past, human pricing, sales, and investigation and compensation were carried out. These traditional methods have undergone great innovations in the information age. Now the use of big data and artificial intelligence technologies has begun to move towards automation. In the sales link, intelligent retrieval, human-computer interaction, etc. can select matching health insurance products according to the basic needs of customers; when underwriting, big data technology is used to participate, The process is both time-saving and labor-saving: when making claims, automated underwriting is more convenient. For example, Pingan Insurance company realizes one-click payment.

Combine online agent and offline platform services. Traditional insurance sales and services are through customer agents and pay them commissions, resulting in a waste of time and cost, and its own professional knowledge is not strong; now online service platforms include official self-operated (own official website and app), third-party agency websites (Hyze, Duobaoyu, etc.), and third-party platforms (JD, Alipay, Tmall, etc.). Agents can directly communicate with customers to improve customer satisfaction and loyalty. The elderly has a low degree of online trust and can continue their business through insurance agents. However, for young people, they like the convenience brought by the Internet. In the promotion of insurance business, it is necessary to optimize the insurance agent system, by cultivating its professional knowledge and integrate with the online model to meet the needs of different types of customers.

3. Technology helps the development of commercial health insurance

3.1 Medical and health big data

Health data reflects important information about a person's health indicators, so its acquisition is of great significance to health insurance companies, whether it is to develop products or improve services. In the new era, medical insurance will focus on the application of data analysis technology, then integrate and process it to develop related software platforms. Ensuring the quality and quantity of data and integrated analysis are the main factors to improve the core competitiveness of enterprises.

Using rich data to develop related products, personalized and fragmented insurance products can be designed according to different groups of people, and some specific scenarios can be combined more deeply. In this way, we can not only fully understand the needs of customers, but also provide products that can more impress customers. For example, Alpha Insurance of Pacific Insurance, its original design concept is based on customers filling out questionnaires, matching the

system, and automatically generating recommended products. There is also Pingan Insurance company's "Thousand Faces", which uses data models for technical analysis to accurately provide each customer with the most relevant insurance products, and provide services through "Smart Care" and "Robot Xiaolan" to achieve more personalized and more convenient service effect.

Big data brings improved risk control capabilities. The reasonable application of health big data can achieve efficient and accurate operations, and better lay the foundation for intelligent self-service insurance, underwriting, and compensation. The acquisition of accurate health data can realize commercial health insurance claims risks and smart claims.

Health big data can support the delivery of health-related services. The greatest application value lies in the management of chronic diseases. For the long-term process of chronic disease management, more accurate health data is required to provide personalized services, which can reduce various complications and reduce medical expenses.

3.2 Blockchain

In terms of big data management, blockchain technology has great advantages: decentralization, non-tampering, and security. These advantages enable blockchain technology to be well applied in a social activity such as insurance. It brings high transparency and substantial cost savings to the insurance industry in the operation process and guarantees data security.

When blockchain technology is applied to the insurance industry, it will inevitably bring about great changes. The application of smart contracts can intelligently execute insurance contracts, which can improve exchangeability. Automated operations no longer rely on insurance middlemen and intermediaries to form a distribution formula. For example, some micro-insurance, micro-mutual assistance, and peer-to-peer interactive insurance platforms have realized decentralized management and organization. Patients and health-related institutions such as hospitals, rehabilitation institutions, elderly care institutions, pharmaceutical companies, etc., establish a "smart contract", then package it with blockchain technology to form a record. Multiple records are linked to a "chain". For example, Sunshine Insurance company's red envelope form of Sunshine Bay points, Zhongan Technology's "Anlian Cloud", these are Chinese insurance companies' attempts to apply blockchain technology.

However, the blockchain technology still faces many problems to be solved because its application field is still far from the technical theory to the real commercial operation. In application, only the most basic technical requirements (such as the feasibility of high-frequency trading) are very difficult, and the combination of this technology with the Internet, big data and other related technologies shows its application value. More importantly, there are also social and legal problems in the high level of supervision of an international network.

3.3 Internet technology

Use new media technology to create a new product form: Insurance combines smart devices related to Internet technology, which can provide data to help insurance companies predict and set risk rates; use new media to improve industry service quality and enhance competitiveness. Insurance companies can track consumer behavior and respond in time, which not only can study consumer behavior, but also convert consumer behavior and potential needs into sales.

Improve the online business of the mobile client. Mobile phones have become an important information exchange tool that is becoming more and more popular. Customers can use their mobile phones to download the insurance company's APP or log in to related websites, mini programs, or search on third-party platforms or institutions. All company's insurance products is listed on these and use intelligent customer service or robots to finish information interaction and health management, which brings great help for follow-up step and the establishment of the "health insurance + health management + health service" industrial chain.

4. Ecological integration of health insurance and health industry chain

By participating in the integration of the health industry chain, health insurance companies can create new operating models, make health management insurance products and related services more

professional, and form a closed industrial ecosystem of "health insurance + health management + health services", such as: "General health + general pension", "medical + insurance integration", to create a health industry chain of "physical examination, consultation, treatment, nursing, rehabilitation and insurance", "family health services" closed loop and "chronic disease management + health insurance", etc. This not only provides high-quality services and builds customer loyalty well, but also achieves unanimous business goals through the integration of resources after integration, reducing excessive medical treatment and adverse selection. At the same time, the information sharing platform solved the pain points of medical and health data acquisition and management, see Figure 6.

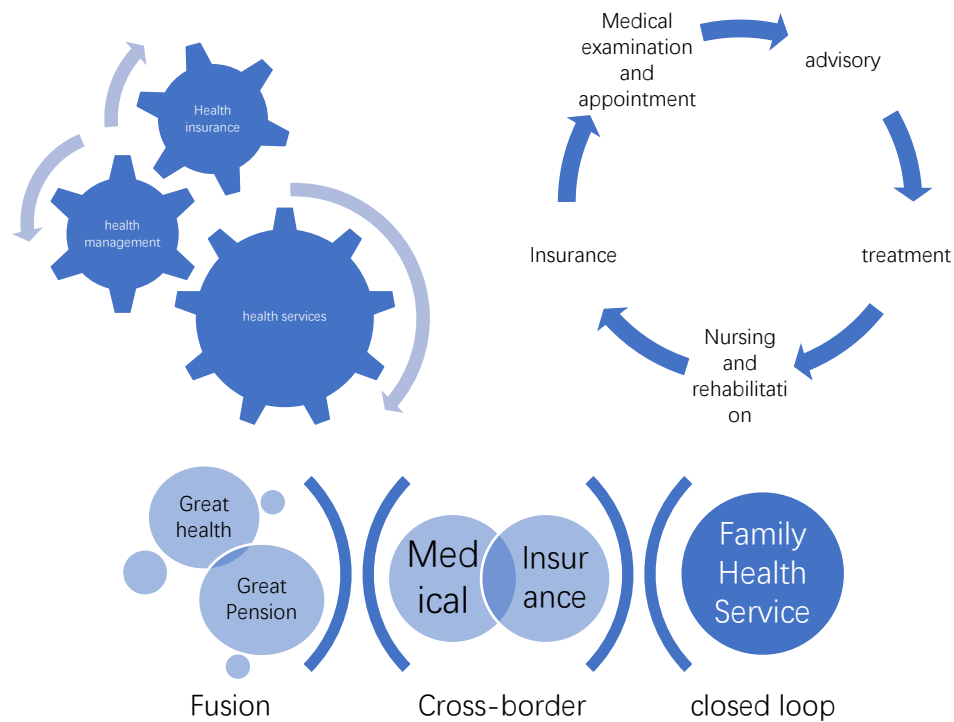


Figure 6 Ecological integration construction model of insurance and health industry chain

According to the data, the main ways that Chinese insurance companies participate in the health industry chain are as shown in Table 1:

Table 1 Main ways that Chinese insurance companies participate in health industry chain

1	Cooperate with medical institutions.	Due to the inconsistency of the interests of both parties and the lack of successful cases of in-depth cooperation, it is generally limited to the level of strategic cooperation.
2	Insurance companies build hospitals by themselves or share hospitals.	Taikang Group shares in five hospitals including Nanjing Xianlin Gulou Hospital and Taikang Tongji (Wuhan) Hospital; Sunshine Life Investment holds Sunshine Ronghe Hospital
3	Self-built retirement community.	For example, Taikang House established by Taikang Life Insurance, as the first pension community investment entity in China's insurance industry, and the largest chain pension institution in China, has now completed the layout of Beijing, Shanghai, Guangzhou, Sanya, Suzhou, Chengdu, Wuhan and Hangzhou)
4	Realize the synchronization and integration of online and offline resources	At present, insurance companies such as Ping An of China, Sino-British Life, Sunshine Life and Taikang Life have deployed online medical and mobile medical services, using information technology to improve medical service efficiency and reduce medical costs. For example, Ping An's online health consultation and health management app "Ping An Good Doctor", with doctor resources as the core, provides customers with real-time consultation and health management services

Participating in the integration of the health industry chain has become the focus of the future

development of many insurance companies. However, participating in the health industry chain faces problems such as large initial investment, long recovery period, lack of talents, and imperfect laws and regulations. Therefore, insurance companies must also move forward steadily. In the construction process, they must pay attention to strengthening information communication between industries, actively participating in government projects, and improving talent training mechanisms.

5. Summary

5.1 Discover more value in the multi-level medical security system

As one of the important components of Chinese multi-level medical insurance system at this stage, commercial health insurance is playing an increasingly important role (Figure 7). In terms of supplementary functions, our current population structure is experiencing an aging population, which has created a greater demand for health insurance to ease the pressure on basic medical insurance. In a market regulation mechanism, commercial insurance not only has the commercial attribute of being close to customer service and focusing on efficiency, but also has the social attribute of participating in the construction of a multi-level medical insurance system, which can reduce the administrative cost caused by the "separation of management and operation" of medical insurance. The competition brought about by the injection of these market vitality can improve the level of medical insurance and health management.

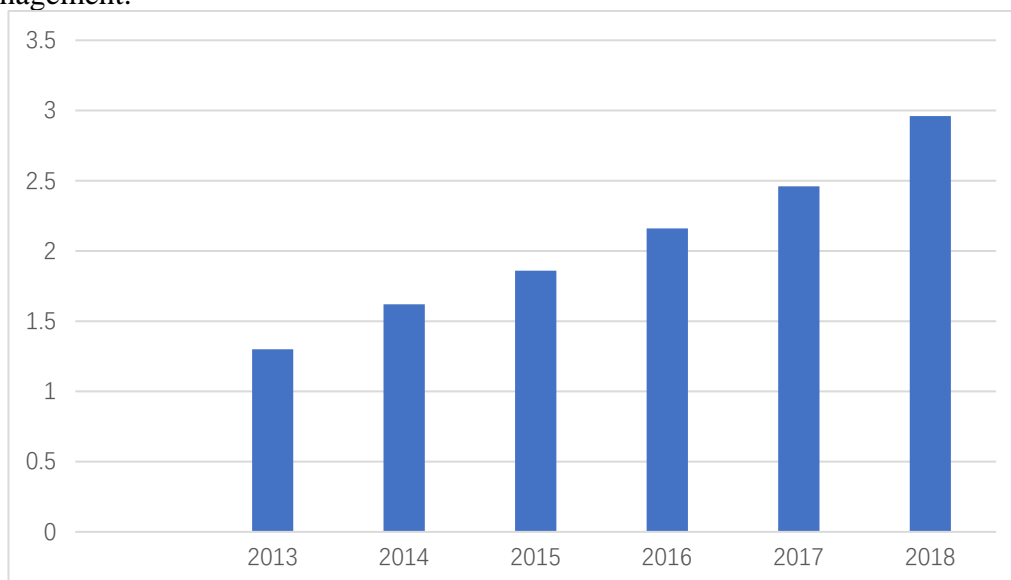


Figure 7 Commercial health insurance as a percentage of total health expenditure%

5.2 Promote the supply-side reform of commercial health insurance, which is more professional and more appropriate in innovation

Take health as the center to develop to realize "health insurance + health management". From the perspective of social benefits, health protection is the essence. It also provides protection and management services for people's health, which also meets the development requirements of "health for all." Only by recognizing the essence of commercial health insurance can we meet customer needs in product innovation, expand the marketing model, extend the service chains and increase the stickiness of loyal customers.

Grasp the dual drive of demand and technology. The insurance business in the future is to appropriate to the customer themselves, to grasp data to integrate and analysis, the smarter and more automated high-tech. Only more personalized, fragmented, more scenario-based and more self-service products and services are favored by customers.

5.3 Continue to participate in the integration of the health industry

Explore ways of integration and increase the depth of integration. Form a brand-new development

concept and give birth to new products, services and models, so that commercial medical insurance is not only the financial processing of expense reimbursement and premium payment, but also increases integration with the "health and finance" industry. Increase the integration of the industrial chain, shorten the communication cost between industries, and make the health industry cooperation such as insurance companies and medical institutions closer and more convenient.

Extend the value chain and form a closed loop of integrated services. Start from customer needs and return to health as the center, then discover more personalized, more appropriate, and richer products and services to create an integrated model of "health insurance + health management" and form service closed loop concluding disease prevention, detection, management, and treatment , Recovery, and return to life.

5.4 Looking forward to the improvement and implementation of relevant policies

Whether it is the improvement and accurate implementation of current policies, or the management of laws and regulations that need to be established in the future, it greatly affects the development direction of commercial health insurance. Some favorable policies will encourage people to accept commercial health insurance (such as tax incentives), and will also bring guidance and direction to its development; there are also solutions to some current or future problems, including: Clear the supplementary status of commercial health insurance, the boundaries and perfection of "separation of management and operation", how to supervise medical and health big data and blockchain technology, and the related issues of future health industry integration.

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