Health Financing Reform in China: Multi-layered Medical Security System and Payment innovation

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Our vision is that all people, no matter where they live, have a right to access high quality, affordable healthcare and to lead healthy and productive lives.
The driving factor of developing multi-layered medical security system is the aging population with their medical bills, which making the BMI (basic medical insurance) is struggling to cover.

Figure 1: Number, proportion and growth rate of China’s population of people aged 65 and older (2014 –2019)

Figure 2: Income, Expenditure and Growth Rate of China’s Social Medical Insurance (2013-2018)

Source: China National Bureau of Statistics, ASK Health Analysis
The recent medical reform guidance and industry policies try to further clarify the positioning of CHI in the “Multi-layered Medical Security System", and provide support on development and regulation.

### Basic Medical Insurance (BMI) Development Stage
- **1998**: Establishment of the BMI system for urban employees
- **2003**: Establishment of a new rural cooperative medical system
- **2007**: Establishment of BMI for urban residents
- **2009**: Proposed the establishment and improvement of a multi-level medical security system covering urban and rural residents
- **2015**: National implementation of the major illness insurance system for urban and rural residents
- **2016**: National Medical Security Bureau officially established

### Professional Exploration and Experiment (2004~2016)
- **2014**: Opinions of the General Office of the State Council on Accelerating the Development of CHI
- **2016**: Healthy China 2030

### Start and Initial Development (1983~2003)
- **1995**: Insurance law
- **1998**: Decision on Establishing a BMI System for Urban Employee
  - The first national policy to propose the supplementary positioning of CHI

### New Era and New Starting Point (2017~now)
- **2019**: The Basic Medical Hygiene and Health Promotion Law of the People’s Republic of China
  - China Banking and Insurance Regulatory Commission proposed that the revisions that conform to the requirements of the times accelerate the pace of CHI to help build a "healthy China".
- **2020**: 13 ministries and commissions jointly proposed: fundamentally promote the integration of CHI and BMI system, and truly promote it to become an important part of the medical security system with Chinese characteristics

### Critical Disease Insurance
- Supplementary Medical Insurance, Commercial health insurance, Medical mutual assistance and Charitable donations

### Multi-layered Medical Security System
- **Core Layer**: Basic medical insurance system
- **Bottom Layer**: Urban and Rural Medical Assistance System
- **Supplementary Layer**: Critical disease insurance

### Source
- Government Websites, ASK Health Analysis
Among the above policies, the *Opinions of the 13 ministries & commissions on Promoting the Development of Commercial Insurance in the Field of Social Services* is worthy of discussion.

I. Expanding the supply of commercial health insurance:

...Commercial insurance institutions shall be encouraged to adapt to consumers’ demands and provide comprehensive health insurance products and services covering multiple fields such as medical treatment, disease, rehabilitation, care, and maternity. …

New medical technologies, new drugs, and new devices shall be gradually included in the coverage of health insurance, and commercial insurance institutions shall be guided in developing products related to cancer screening, diagnosis, and treatment, supporting medical innovation, and serving China’s Implementation Plan for Cancer Prevention and Treatment.

…Great efforts shall be made to enable the commercial health insurance market to exceed more than 2 trillion yuan in its size and become an integral part of the medical security system with Chinese characteristics.

II. Improving the quality and efficiency of commercial insurance institutions’ participation in the provision of medical insurance services:

The operation and supervision mechanism for critical illness insurance for urban and rural residents undertaken by commercial insurance institutions shall be improved, …enable them to actively participate in the control of medical expenses and promote the reduction of “those slipping into poverty because of illness and those falling back into poverty because of illness.”

Commercial insurance institutions shall be encouraged to engage in basic medical insurance and medical assistance, among others, and provide quality services. Exploration shall be made for promoting information sharing between the commercial health insurance information platform and the national medical security information platform as required and strengthening the use of medical and healthcare big data sources, to promote the reform of medical payment methods and better serve the development of medical insurance policies and the management of medical expenses…

VI. Exploring to meet the insurance needs of the elderly aged 60 years or older:

Commercial insurance institutions shall be guided and supported in developing the elderly’s illness insurance, medical insurance, accident insurance and other exclusive products targeted at the insurance needs of the elderly aged 60 years or older.

By adhering to the principle of sustainable business development, subdividing responsibilities for guarantees and setting prices in scientific ways, they shall provide more affordable insurance products with flexible responsibilities and efficient services to the elderly aged 60 years or older, and improve the level of guarantee.

Commercial insurance institutions shall be supervised in providing the elderly aged 60 years or older with whole-process services for their purchase of commercial insurance. The approval and filing of exclusive personal insurance products oriented to the elderly aged 60 years or older shall be accelerated.
The premium income of CHI has grown rapidly, but from the perspective of its volume and product category, compared with the coverage of basic medical insurance (BMI) and residents’ healthcare needs, there is still greater space for development.

Figure 1: Changes in the original premium income structure of the insurance industry from 2014 to 2019

In 2019, the original premium income of China’s insurance industry totaled 4,264.5 billion yuan. Among them, health insurance accounted for 17%. Compared with the end of 2018, the proportion of health insurance premium income has increased by 2.3 percentage points, and its contribution to the insurance industry has become increasingly prominent.

Figure 2: The scale of original premium income of health insurance from 2014 to 2019 (unit: RMB 100 million)

- Insurance compensation expenditure in 2019 was 235.1 billion, accounting for 33% of insurance premiums (the US commercial insurance compensation rate was as high as 80%)
- The actual health compensation expenditure in 2017 accounted for only ~ 7% of personal health expenditure
A Multi-layered Medical Security System with BMI system at its core underpins China’s fast economic development by providing a stable workforce for companies, reducing concerns of future uncertainty, and thereby stimulating household consumption.

Commercial health insurance plays a supplementary role in the multi-layered medical security system.

**Supplementary Layer**
- **Supplementary medical insurance**
  - Commercial health insurance, Medical mutual assistance, and Charitable donations

**Core Layer**
- **Critical disease insurance within the basic medical insurance**
  - Government-led, commercial insurance undertake
  - The major products are critical disease and short-term medical insurance and currently mainly for the healthy population.

- **Basic medical insurance**
  - Targeting all populations with limited coverage
  - Universal participation, with the average protection level at 60%.

**Bottom Layer**
- **Urban and Rural Medical Assistance System**
  - Targeting people living in poverty
  - Protect the basic medical rights of residents in financial difficulties

**Multi-layered medical security system in China**

Source: Milliman, ASK Health Analysis
From an industry perspective, with the rapid development of the market, where diversified participants such as traditional Internet companies, digital healthcare and professional TPAs have joined the CHI market, the development of the industry can be promoted through business model innovation and advanced technologies.

Key participants:

**CHI companies:**
Life insurance companies are mainly engaged in operating long-term CHI such as critical disease insurance, with the premium income accounted for nearly 90% of the total amount of CHI. Chinese-funded CHI companies dominate the market, and foreign-funded companies have less than 10% market share.

**TPA companies:**
A growing number of innovative TPA companies have emerged since 2015, including data and technology-based TPAs, healthcare services-based TPAs, and PBMs (Pharmacy Benefit Management and Innovative Payments), etc.

**Internet sales platform:**
The internet sales channels can be divided into insurers’ official self-built platforms and the platforms of third-party internet companies. Compared to insurers’ self-built platforms, third-party Internet platforms represented by social, financial, public welfare and mutual aid, e-commerce and media platforms become the main source of Internet insurance premiums, with a total of RMB 161.98 billion of premium income achieved through third-party platforms in 2019, up 63.3% year-on-year from 2018, accounting for 87.2% of the total scale of Internet life insurance premiums.

Source: ASK Health Analysis
China has introduced multiple policies on the reform of medical insurance payment system, shifting from paying-for-service to a diversified compound payment system based on disease.

- **2017.05**
  - "Opinions of the Central Committee of the Communist Party of China and the State Council on Deepening the Reform of the Medical Security System" was released, mentioning that in the future, China's medical reform will be "based on disease-based payment".

- **2019.02**
  - The National Healthcare Security Administration mentioned in its response to the suggestion of the National People’s Congress that it will "focus on the promotion of payment by disease type, and study and formulate a method of score-specific payment under disease groups based on big data".

- **2019.06**
  - The "Opinions of the Central Committee of the Communist Party of China and the State Council on Deepening the Reform of the Medical Security System" defines the main goal of the reform of the medical insurance payment method that to further strengthen the budget management of the medical insurance fund from 2017, and fully implement a diversified compound payment method based on disease-based payment.

- **2020.03**
  - Coordinate and promote medical insurance-related reforms. Promote major reforms such as reimbursement list management reform, medical insurance payment system reform (including volume-based purchase), personal account reform, etc.,

- **2020.07**
  - The expert forum on disease-based payment with scores based on big data, guided by the National Healthcare Security Administration and sponsored by the National Medical Insurance Research Institute, was held in Beijing.

- **2020.09**
  - The National Healthcare Security Administration mentioned its response to the suggestion of the National People’s Congress that it will "focus on the promotion of payment by disease type, and study and formulate a method of score-specific payment under disease groups based on big data".
Since 2018, with the release of articles deepening medical information standardization reform, DRG and DIP payment are implemented in chosen pilot cities across the country.

- **2018.12** Notice on the application of the national pilot program of payment based on diagnosis-related groups
- **2019.06** Notice on the issuance of the list of cities in the country piloting payment based on diagnosis-related groups
- **2019.10** Notice on the issuance of the technical specifications and grouping plan of the diagnosis-related group (DRG) payment country pilot
- **2020.10** Notice of the pilot work plan for the total budget of regional points and the payment by Big Data Diagnosis-Intervention Packet
- **2020.11** National medical insurance payment based on Big Data Diagnosis-Intervention Packet (DIP) technical specifications

Each province can recommend 1-2 cities (municipalities directly under the central government take the whole city as a unit) as candidate cities for national pilot projects. In accordance with the three-step work deployment of “top-level design, simulation test, implementation and operation”, through the deep participation of DRGs payment pilot cities, jointly determine the pilot plan, explore the promotion path, and formulate and improve the nationally unified DRGs payment policy, process and technical standards. Form pilot results that can be used for reference, replicated, and promoted. (30 cities by April 2021)

Announce the list of pilot cities and follow the three-step idea of "top-level design, simulation testing, and actual payment" to ensure the completion of tasks at each stage, to ensure that the simulation runs in 2020, and the actual payment is initiated in 2021.

Ensure that the 26 main diagnostic classifications (MDC) and 376 core DRG groups (ADRG) are consistent across the country. Formulate local subdivided DRG groups (DRGs) according to the unified grouping operation guide and the actual situation of each region. Each pilot city uniformly uses five information business coding standards, including medical insurance disease diagnosis and surgical operations, medical service items, medicines, medical consumables, and medical insurance settlement lists. The National Medical Security Administration established a technical steering group for the DRG-paying national pilot working group to provide technical support.

The notice clarifies the target to take 1-2 years to combine the total budget of the overall regional medical insurance with the big data diagnosis intervention packet (DIP) method to realize a multiple compound payment method in which the hospitalization is based on the value of the disease. (71 cities by April 2021)

Clarified the data basis and applicable conditions of DIP, clarified the principles and methods of DIP and point payment, determined the specific methods of point calculation and medical insurance fund settlement, and put forward specific requirements for medical insurance supervision, monitoring and evaluation.
In 2021, we published “Practical Research on DRG Payment” with other three association and cooperation

Published by:

- China Medical Information and Big Data Association
- China United Network Communications Group
- ASK Health
- VCBEAT
Pharmaceutical companies may take some countermeasures to respond to the DRG reform, and prepare for the upcoming medical insurance payment model adjustment.

- **Continuously prove and enhance the value of products**: Provide sufficient evidence-based value evidence to ensure the unity of product safety, effectiveness, and economy, and provide data support for responding to the DRG payment reform.

- **Accelerated entry into the clinical path to help optimize DRG standards**: Accelerate the inclusion of clinical pathways and assist in the optimization of DRG grouping standards, making DRG standards more in line with clinical needs while promoting the clinical use of innovative products and technologies.

- **Shift marketing strategy and accelerate strategic layout**: Start marketing strategy transformation and strategic layout as early as possible to improve marketing and promotion efficiency complying with policy trends.