

# ***Research on the Construction of the Operation Model of Elderly Institutions under the PPP Model and Its Risks***

## ***- A Case Study of Qingdao City***

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**Abstract:** At present, the elderly problem in China has become a more serious social problem, and the low service level of elderly institutions and the insufficient number of nursing homes further aggravate the elderly risk. the establishment of PPP model elderly institutions can not only effectively relieve the financial and operational pressure of the government and help solve the social elderly problem, but also attract social capital to form corresponding cooperation with the government to achieve maximum benefits. However, at present, the number of PPP-model elderly institutions in China is insufficient, and they have not formed large-scale operations, and the elderly institutions are still mainly private institutions. At the same time, PPP projects also have greater risks in the operation of this model due to its complexity. To explore the operation and construction and risk factors of PPP model senior care institutions, this paper takes Qingdao city as an example, analyzes the above issues related to the current policy, social environment, and the specific situation of Qingdao city in China, and thus puts forward relevant suggestions.

**Keywords:** PPP model, pension project construction, pension institution operation risk

## **1. Introduction**

In the 21st century, with the improvement of China's economic level and medical levels, population aging has become an important social issue in China. According to the data of the 7th National Population Census released by the National Bureau of Statistics, from 2010 to 2020, the population aged 60 and above in China has reached 264.02 million, and 190.64 million aged 65 and above, accounting for 18.7% and 13.5% of the total population respectively. Compared with 2010, the proportion of the population aged 60 or above has increased by 5.44 percentage points. With the continued rapid growth of the elderly population, the elderly has become an urgent and heavy issue [1]. Qingdao Municipal People's Government proposed to implement the deployment of efforts to promote the quality and expansion of service consumption in the happiness industry and encourage the use of government and social capital cooperation (PPP) mode to promote the supply-side structural reform of the elderly service industry, accelerate the cultivation and development of the elderly service industry, form a multi-level, multi-channel and diversified elderly service market, and promote the development of the cause of the elderly.

According to the different modes of introducing social capital into public nursing homes, the existing PPP model nursing homes in China mainly include developer financing, public-private, public-built-private, public-rented-private, private-assisted, and government-purchased nursing service models [2].

Developer financing means that the social capital injects capital into the company that builds and organizes the social senior care project as a shareholder, assuming responsibility for the amount of investment, and the social capital provides funds for the construction or expansion of the senior care facility in exchange for the right to build the senior care facility at that location. At present, there is no very mature model of financing investment in senior care institutions by developers in China.

Public-private institutions refer to the reformation of senior care institutions with the participation of social capital. The private institutions take over the management of the state-run elderly institutions and contribute to the reform of socialization and specialization of the institutions. A large number of social elderly care institutions owned by governments at all levels receive full or differential subsidy support from the government in terms of investment and development, staff funding, and service subsidies. For example, Nantong Rugao Boai Rehabilitation and Nursing Home is a public nursing home run by the government and operated by social forces, and is operated in the form of a public-private enterprise.

Public-private elderly care institutions are generally government-led, invested in the construction of elderly care facilities, and then handed over to private organizations to operate and manage and organize elderly care services. This approach encourages social capital to operate publicly owned elderly service facilities through entrusted management and other means to optimize the development environment of elderly service. For example, in Wuxi Binhu District Social Welfare Center and New District Shuofang Summer Palace, a total of 13 public elderly institutions have been implemented in the public-private sector [3].

The government leases the properties of senior care institutions, and through public bidding to social organizations, it establishes senior care institutions. For example, the government of Gulou District in Nanjing leased several properties and handed them over to social organizations free of charge through public bidding, cultivating six institutions such as Gulou District Heart to Heart Senior Service Center and Jin Kang Senior Care Center.

Privately-owned senior care institutions refer to those senior care institutions established by social investors who are responsible for raising construction funds and operating liquidity for senior care institutions, and by the government's allocation of land, providing part of the project construction funds and operating subsidies such as loan subsidies, and by social capital construction and operation management, with the government owning the complete property rights of the project. For example, Suqian City Social Welfare Center in Jiangsu Province and Wujiazui Senior Citizen Residence in Gaochun District of Nanjing City.

The government's purchase of senior care services is an important institutional arrangement for the government to use financial funds to purchase civil affairs public services from professionally qualified social organizations, enterprises, institutions, and other social forces in a market-oriented and contractual manner. The purchase of services can be done in the form of commissioning, franchising, strategic cooperation, government subsidies, and service outsourcing. For example, Xining City of Qinghai Province launched the pilot government purchase of senior care services in October 2014, and senior care institutions such as Qinghai Hai Du Public Service Center, Glorious Home Senior Care Call Service Center, and Yihe Senior Park have joined the pilot government purchase of senior care services.

In this context, this paper focuses on the construction of the PPP model in the operation of senior citizens' projects and the associated risks, taking Qingdao city as an example, to provide a reference for promoting the construction of senior citizens' projects in China.

## **2. The Current Situation of Elderly Care Institutions: A Survey Reduction Based on Qingdao City**

By the end of 2020, there were a total of 264 aged-care institutions in Qingdao with a total of 68,000 beds, of which 230 were private aged-care institutions, accounting for 88.5% of the total number of institutions; 58 aged-care institutions with less than 50 beds, accounting for 22% of the total number of institutions; and only 6 aged-care institutions with more than 1,000 beds, accounting for 2.4% of the total number of institutions. At present, the problems in the construction of elderly care projects in Qingdao are manifested in the following aspects [4].

### **2.1. Service Positioning Is below Social Expectations**

Home and community care services are far from meeting the real demand due to the imperfect facilities and low level of professional services. In recent years, Qingdao has built more than 1,300 community daycare centers, but most of them are operated part-time by the staff of community committees, and the actual utilization rate is not high, or even diverted to other uses.

### **2.2. The Trend of "Polarization" of Senior Care Institutions**

About 80% of the nursing homes in Qingdao are private enterprises and about 20% are public institutions. There is a difference in the government's support for public and private nursing homes. Because of the complete facilities, standardized management, good service, and low fees, public nursing homes are often difficult to find a bed, and generally have to make reservations and queue for admission, some of which can take as long as 1-2 years; while the average occupancy rate of private nursing homes is only about 50%, and most of them are in a loss-making state.

And in the research, we learned that the number of elderly institutions operating under the PPP model in Qingdao is small and no large-scale operation has been formed.

### **2.3. Inadequate Construction of Elderly Infrastructure**

The research found that the basic facilities of some elderly service places are not sound. Some nursing homes in good condition have activity rooms such as table tennis rooms, fitness equipment rooms, chess rooms, etc. Some nursing homes, such as Qingdao Fucai Nanshan Nursing Home, even have a garden recreation area. Some of the nursing homes are in poor condition, not only do they have no elevator, but also no inclined stairs for pushing wheelchairs, and the stairs are very steep, which is very inconvenient for the elderly to travel. Some nursing homes do not have courtyards at all, so the activities of the elderly are limited to the unit building, and the entertainment is single, so it is difficult to enrich the spiritual life of the elderly.

### **2.4. There Is a "Supply Imbalance" of Elderly Service Personnel**

Due to traditional thinking and salary and compensation, the number of elderly service workers is low and recruitment is difficult. One service worker has to take care of several elderly people at the same time, and the service pressure is high, thus leading to average service quality. Meanwhile, according to the research data, the education level of service workers in institutions is generally low, most of them have a junior high school or high school education, and only a few of them have professional nursing knowledge and college education or above. The lack of professional knowledge and skills only leads to poor quality of services and makes it difficult to meet the needs of the elderly [5].

### **3. PPP Pension Project: Qingdao's Future Pension Plan**

The Qingdao Municipal Government has proposed to implement the spirit of documents such as the "Notice of the State Council on the Issuance of the 13th Five-Year Plan for the Development of National Aging and the Construction of Aging System" and encourage the promotion of the government-enterprise cooperation model to promote the development of the senior care industry. However, during the research, we found that most of the senior care institutions in Qingdao are private institutions, the number of senior care institutions under the PPP model is relatively small, and no large-scale operation has been formed. Based on this, we draw on specific cases from other regions and combine the specific situation of Qingdao city to form a PPP model pension construction plan and analyze the possible operational risks involved [6].

#### **3.1. Overall Project Program**

To effectively solve the problems of senior citizens' livelihood and relieve the financial pressure, we actively explore the PPP cooperation model, take the senior citizen industry in Qingdao as the starting point, take the growing demand for senior citizen services in Qingdao as the starting and ending point, activate the social force, give full play to the decisive role of the market in resource allocation, and make the senior citizen service comprehensive project form a replicable industrial model.

The project is based on PPP mode and social capital cooperation, government-led and market-driven, with social capital setting up the project company, giving full play to the power of specialized social organizations, continuously improving the level and efficiency of social elderly services, promoting the formation of an orderly competition mechanism, and achieving win-win cooperation. The project takes the integration of medical care and nursing care as the main concept and provides services for the government, the elderly, operators, and investors through the Internet+, smart medical care, smart senior care, and other technical means. The project gives priority to supporting basic elderly protection and realizing the combination of universal service and personalization. It will improve the operation supervision mechanism, strengthen performance evaluation and project supervision, promote the standardization of the elderly service industry, strictly implement the financial PPP work system specification system, promote the standardized development of the elderly service industry, and finally achieve an effective solution to the diversification of the elderly's elderly needs, take into account the requirements of all the elderly to improve and enhance the conditions of elderly services and promote the development of the elderly service industry in Qingdao.

#### **3.2. Construction of Elderly Institutions**

With the Qingdao municipal government as the guide, it will cooperate with relevant enterprises to build into a large comprehensive senior care institution integrating care, medical and rehabilitation services. As the current demand for elderly care in Qingdao is large, the authorities and enterprises can be encouraged to transform their resorts, training centers, guest houses, and nursing homes into elderly care institutions through PPP mode and attract social capital to operate and manage them.

#### **3.3. Construction of Daycare Centers**

Daycare centers have now been evenly distributed throughout Qingdao, mainly providing quality elderly care services as well as medical care for the self-care elderly, semi-self-care elderly, and completely non-self-care elderly in each district. However, as most are provided by non-business units or the government, the level of elderly care services provided is more limited. Therefore, it is possible to support the packaging of community elderly services in the regions under its jurisdiction and hand them over to social capital parties for investment, construction, or operation through the

PPP model, to achieve uniform standards and operation of community elderly service projects in the region.

### 3.4. Construction of Medical and Health Care Integration

It is recommended that senior care institutions cooperate with medical and health institutions and health service providers. Relying on the existing medical resources, we can realize the seamless connection between medical and health institutions and senior care institutions, and support the creation of a life-cycle senior care service chain based on health management, with senior care services as the core and medical services as the support, to provide integrated medical and nursing care services for the elderly. At the same time, to break the sectoral constraints of "medical care integration", in the form of joint meetings, negotiate to solve the current constraints, formulate policies and regulations that help the benign development of "medical care integration" elderly care model, simplify the "medical institutions to run elderly care, elderly care institutions to run medical care". The government should also make the policy and regulations that can help the development of the "medical and nursing care" model, and simplify the approval process of "medical institutions running nursing care and nursing care institutions running medical care" [7].

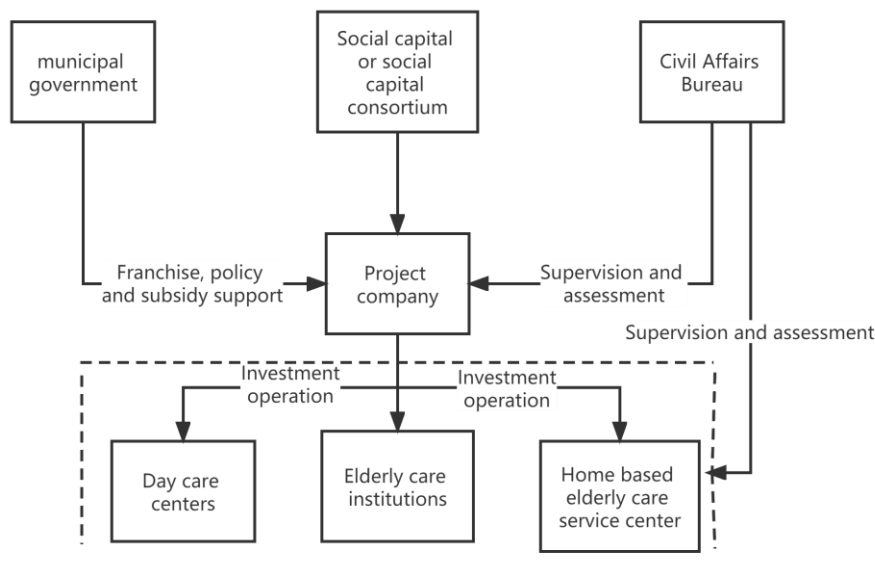


Figure 1: Qingdao's PPP pension plan (photo credit: original).

### 3.5. Project Analysis of the PPP Model

The project adopts the government and social capital cooperation model(which can be seen in figure 1), using the PPP model to operate the elderly institutions and home-based elderly service centers, the government does not participate in the formation of the project company, through the government purchase of social services mode selected social capital or social capital consortium to set up the project company, responsible for the investment, construction, and operation and maintenance of the project, the municipal government granted a franchise to the project company, during the concession period to obtain the government The municipal government grants the concession to the project company and receives construction subsidies from the government during the concession period.

During this period, the construction and operation of the project company will be supervised and performance assessed by the civil affairs department. The operating cost of the project will be paid by the social capital relying on user fees, and by market-oriented principles, the project will obtain returns by providing meal assistance, cleaning assistance, emergency assistance, bathing assistance, and other services to the elderly in the community, thus covering the operating cost and making a profit, and the government will not bear the operation and maintenance subsidies.

#### **4. Project PPP Mode Operation Risk Analysis**

Although the PPP model can provide effective support for solving China's senior care problems, including Qingdao, it faces many risks because it involves more people and therefore faces a more complex environment.

##### **4.1. Economic Risks**

The economic environment of the country directly determines the current as well as future market size of senior care institutions and also has a relevant impact on the financial performance of senior care institutions introducing the PPP mode of operation. Receiving the impact related to the epidemic, Qingdao's economic development was affected to varying degrees, but still steadily improved. 2021 annual gross domestic product in Qingdao was RMB 1,413.646 billion, up 8.3% over the previous year, with two-year average growth of 6.0%, higher than the national and provincial levels by 0.9 and 0.1 percentage points. Among them, the added value of primary industry was 47.006 billion yuan, up 6.7% over the previous year and 4.6% on average in two years; the added value of secondary industry was 507.033 billion yuan, up 6.9% over the previous year and 4.9% on average in two years; the added value of tertiary industry was 859.607 billion yuan, up 9.2% over the previous year and 6.6% on average in two years. Among them, the service industry is booming and the key service industry is active. 2021 January-November, the city's service industry enterprises above the scale achieved a business income of 304.10 billion yuan, up 42.1% year-on-year, with an average growth of 24.2% in two years. Industry growth surface remained stable, with 29 of the 32 major industries achieving year-on-year growth and 14 industries growing at 20.0% or more. The booming development of the service industry indicates that the elderly service industry in Qingdao has a broad market prospect and development space in the future, and the improvement of Qingdao's GDP also indicates that the construction of elderly institutions will receive more government-related budgets in the future, and the promotion of PPP mode elderly institutions has financial support, and the market operation risk of PPP mode elderly institutions is low.

##### **4.2. Cultural Environment**

To this day, there are still many elderly people or their children who have a negative attitude towards elderly care institutions. This is related to the traditional model of providing for the main families in China, the concept of "raising children for old age", the "family-oriented" mentality of the elderly, and the discomfort of the elderly with the purchase of elderly care services.

With industrialization, urbanization, and the emergence of the wage labor system, the production function of the traditional main family has been transferred to modern enterprises, and the family is no longer an independent production unit, so it is difficult for the elderly to continue to obtain the status of production leader in the family. At the same time, some of the original functions of family education have been replaced by large-scale and popularized schools and tutorial classes, and the emergence of other social service institutions (such as childcare institutions) has weakened the function of the elderly in the family to educate their offspring. As the status and role of the elderly in the family decreases, the traditional family structure is also gradually adjusted, gradually chang-

ing from the main family to the core family, the family structure is miniaturized, and the elderly care function is gradually disintegrated. Based on the current situation of "old age before wealth" in China, it is difficult to solve the contradiction between the supply and demand of social elderly services by relying solely on government power. Therefore, the public-private partnership of the "PPP model + senior care" is gradually becoming possible.

#### **4.3. Financing Methods for Elderly Institutions**

At the very beginning of establishment, senior care institutions need a lot of capital to purchase land, fixed assets, and infrastructure and employ a large number of service personnel, which requires a large amount of capital. However, the long investment return cycle and slow capital turnover of the senior care industry make the accumulation of internal capital of senior care institutions weak and the lack of internal capital, so they rely more on external capital investment. The external funds of senior care institutions mainly come from government financial subsidies and bank loans. Although according to the news on the Qingdao government website, the GDP of Qingdao city has increased significantly, which also implies to some extent that the construction of senior care institutions will receive more government budgets, due to certain policy lag, the fund allocation is not completely implemented. In terms of bank financing, due to their limitations and the immaturity of the industry, China's pension institutions do not use direct financing methods such as bond financing, stock financing, trust funds, venture capital, and private equity, making the PPP model of operating pension institutions with corresponding risks [8].

#### **4.4. Human Resource Management in Elderly Institutions**

According to the "Basic Standards for Social Welfare Institutions for the Elderly" issued by the Ministry of Civil Affairs, social welfare institutions for the elderly in urban areas and rural areas where conditions exist should have one full-time social worker and full-time rehabilitation staff with a college degree or higher and a social work degree. However, at present, only a few public elderly institutions can meet the corresponding standards, and most private elderly institutions lack professional doctors and nurses. The main reason is that the number of public institutions is insufficient and the financial function pays the salaries of the staff in the establishment. Private elderly institutions cannot provide the corresponding establishment, and the low salary level and low social status make it difficult to bring in professionals, resulting in the lack of a corresponding human resource base in elderly institutions. Professionals are scarce and unreasonably configured, making it difficult to provide specialized services. This makes the PPP mode-operated elderly institutions have corresponding risks [9,10].

### **5. Conclusion**

Combining PPP mode with the senior care industry is a key initiative to promote the development of the senior care industry in China, which is conducive to improving the quality of senior care services and alleviating the current senior care problems in China. This paper makes an analysis of the construction and operation risks of the elderly institutions in Qingdao and finds that the number of PPP model elderly institutions in Qingdao is insufficient at present, and they still have not formed a large-scale operation. Therefore, by drawing on the cases in other regions and Qingdao's policy orientation, we propose a specific plan for establishing the corresponding PPP model elderly. It is also found that there is still room for the development of PPP mode operation in the overall social and cultural environment, while the economic environment and human environment may still bring the corresponding operational risks. Meanwhile, according to the corresponding risks, this paper puts forward the following suggestions.

In terms of laws and regulations, accelerate the formulation of specific laws on the construction of PPP model senior care institutions, and make specific clarifications on the implementation process, risk control, and power and responsibility relationships for PPP model operations. During the period, the legislative management system of the British PPP model can be borrowed, and all projects participating in the selection must be screened and validated according to relevant laws and regulations to decide whether to be selected or eliminated. Clear indicators are guiding each stage of the evaluation, and there are also targeted evaluation methods for different industries, and the system is made more reasonable and applicable by absorbing the lessons learned in the past and continuously amending and improving them during the evaluation process, which provides correction guidelines for subsequent projects.

In terms of the public participation mechanism, it is important to clarify the public's right to know, participate, express, supervise, and ensure the legal status of public participation, while refining the specific norms and procedural content of public participation. The advantages of charitable organizations, social capital, and volunteers are fully utilized, and the strong resources of community networks are used to alleviate government pressure.

In terms of standardization of PPP-model elderly institutions, the government will take the lead to comprehensively implement the decision and deployment of the Party Central Committee and the State Council on the development of the aging industry and the elderly service industry, improve the operation supervision mechanism, strengthen performance evaluation and project supervision, promote the standardization of the elderly service industry, strictly implement the financial PPP work system specification system, and promote the standardized development of the elderly service industry.

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