

Actively Promote Construction of the National Information Service System for Decision Making on Ageing

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ABSTRACT

Since China is “growing aged before growing rich”, it will face double pressures in enhancing its ageing security and service level and in achieving sustainable development. So it's important to establish a systematic, efficient and comprehensive information platform on ageing, construction of which should be built based at community level, so as to promote sustainable development of ageing work and silver industry. This paper has, both from the empirical and research perspectives, reviewed China's current development of grassroots information-collecting platform on ageing and given its observations on the proposed national information service system for decision making on ageing.

Categories and Subject Descriptors

H.4.2 [Information System Applications]: Types of Systems – Decision Support.

General Terms

Management

Keywords

Ageing Society; Information Service; Decision Making

1. PREFACE

1.1 Trends of Chinese Population Ageing

China is a developing country with the biggest population in the world, and also is the country aged at the fastest speed. By the end of 2012, its population aged 60 and above in China reached 194 million, accounting for 14.3% of the entire population. Thanks to the increasing average life expectancy, continuously declining fertility level, rapid urbanization and three birth explosions, the ageing process will continue accelerating in the coming years. According to *national Strategy Studies Responding to population Ageing*, it is projected that the population aged 60 and above will increase to 200 million by 2013, reach 400 million by 2030 and keep growing until it reaches the peak of 500 million by 2050, with its growing speed 1.5 times the world average level. During the second half of the 21st century, China's elderly population will account for over one-third of its total population all the time.

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ICEGOV2013, October 22-25, 2013, Seoul, Korea
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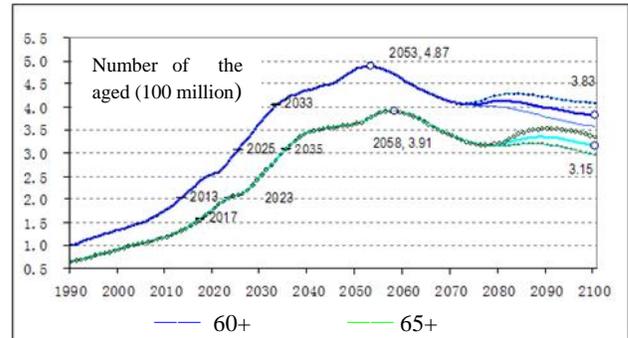


Figure 1. Trends of Chinese population aged 60 and 65

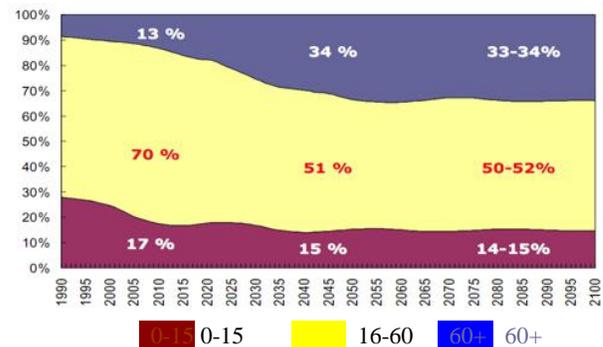


Figure 2. Trends of China's population age structure

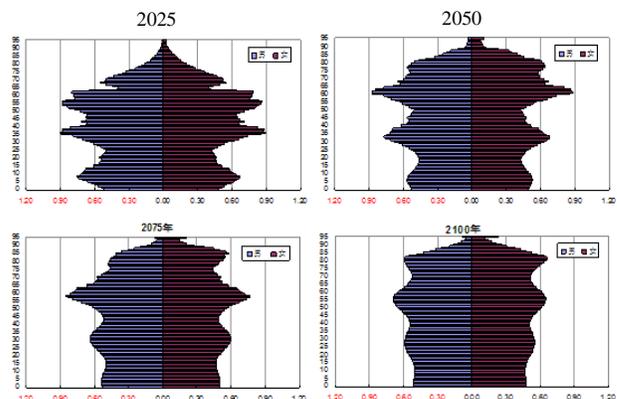


Figure 3. Pyramid of China's population age structure

1.2 Decision Making System Mechanism of Chinese Ageing Work

Facing the critical population ageing and enormous aged population, the Chinese government soberly realizes the importance of coping with the challenges of population ageing in China, and attaches great importance to the ageing work development, in line with the priorities and objectives highlighted in the Madrid International Plan of Action on Ageing (MIPAA). China has built the "mobilization--participation" model of decision making system on ageing, which can be interpreted as following: on one hand, the government set up National Working Commission on Ageing, responsible to integrate, coordinate and monitor the implementation of regulations, policies, decisions on ageing by each ministry and each local authority; on the other hand, Chinese families have the tradition and obligation of supporting the elderly, the social service system for the old age has been constantly improved, which is based on family care, supported by community services and supplemented by institutions for seniors, and traditional virtue of respecting elderly, caring elderly and helping elderly is spreading broadly. The above "mobilization--participation" model on decision making contributed to an increasing level of integration of government policy formulation and the public participation.

1.3 Demands of e-Government Development in Ageing Society

Since China has rapidly entered the aged society when its economic has not totally developed, it will face double pressures in enhancing its ageing security and service level and in achieving sustainable development. "Aged before rich" will remain as the major characteristic of China's ageing issue in quite a long time. Its overall ageing process and increasing of old old population and , empty-nest population have been accompanied with industrialization, urbanization, modernization, overlapped with urban-rural disparity, regional disparity, income gap, and interacted with economic and social transition as well as culture innovation. More and more seniors with modern consciousness have cultivated diverse demands on material, cultural and spiritual needs. The ageing issue will also impact extensively and profoundly on the economic development, social administration, public service, social stability and ideology, culture and many other fields. All these needs and impacts will bring forward new requirements to the ageing work systemic frame and decision making mechanism.

To sum up, responding to the increased needs of the old people and the economic and social development trend, it is significant to enhance the decision making mechanism and to establish and improve the community-based, efficient and comprehensive information system.

2. DEVELOPING COMMUNITY INFORMATION PLATFORM ON AGEING

2.1 Basic Thinking

In order to understand old person's needs which are numerous and scattered and to know about the service resources provided for them which are separated and scattered, information should be linked between the demands and supply in the promptest and fastest way, and an efficient way to do this is to establish an information platform on ageing service, construction of which should be built based at community level. China's practice has

shown that such a platform is the basis of the national information service system for decision making on ageing.

The platform should at least consist of 4 fundamental functions: 1. *Information collection function*. It collects information related to old people including their family general information, family member's information, personal clinical history, demands preference, living condition, etc.; It also collects information of service resources provided including all kinds of service agencies, social organizations, volunteers, and so on; 2. *Diversified service function*. It includes receiving and responding to old person's demand and assistance-requiring information, summarizing the quantities and categories of information collected, and assisting old people in selecting service and connecting them to the service resources; 3. *Emergency relief function*. It includes providing emergency services responding to the old people's common and frequent diseases, injuries, crisis management, etc.; 4. *Supervise and administrative function*. It includes tracking, evaluating, inspecting and supervising the administration of service information, service flow, procedure, staff, price, service fee, subsidies and the service performance, and connecting with government administration, volunteer training, etc.

2.2 Review of the Model: Example of "Virtual Nursing Home"

The community information platform on ageing, which is called "virtual nursing home", is one of the information platforms on ageing China is constructing. Its basic operational model is as follows: operated on the basis of telecommunication network and its services, adopting a combined model of government guidance, fiscal funding, business operation, professional service and the volunteer service, and providing daily care, daily company, medical treatment, food and beverage service, psychological comfort, legal consulting, cultural entertainment, etc., so as to achieve prompt responses, service provision and process supervision according to various kinds of demands of the aged. This model reflects the interactive relationship between government and society, and helps the government solve the issue of deficient overall input and structural imbalance in the construction of nursing homes.

Take the example in Chengguan District of Lanzhou City, capital of Gansu Province, the "virtual nursing home" comprises four centers, including: reception of the aged, franchise management, calling center, and consultation & complaint. The whole process is tracked from the very beginning when the consumer confirms the accepting of its service, then visits will be paid to service receivers, consultation will be provided to them, services be assessed, and governmental financial aids be transferred according to the consumer's satisfaction level. This kind of informational management and operational model can equip the "virtual nursing home" with personalized management which is lacking in the real nursing homes, and it can materialize the professional services which are provided in real nursing homes. By the end of 2011, the "virtual nursing home" has taken in 92 service providing enterprises, 46 dining rooms for the aged, 40 community health service centers and community health service stations, 4300 service staff, and the number of old persons who have received services has reached 22,700.

It can be concluded from the development of the "virtual nursing home" as the following: 1. Establishment and development of community information platform on ageing work could meet the old person's pressing demands, conforming to the actual requirements of current economic and social development in

China; 2. It has features of low investment cost, low operational cost, with big social benefits, and it tremendously decreased the social and financial burden and realized the intensive utilization of social resources in a cost-effective way; 3. It linked the old person's needs with the service providing enterprises, and promoted the well-being of the old people.

2.3 Pilot Practice

From 2011, China has been taking various measures to promote the construction of the community information platform on ageing. Among them one pilot program is to select 21 cities / districts in 12 middle and west provinces to conduct pilot programme in order to build the community service information platform on ageing funded by the central government. Though in various pilot sites, "virtual nursing home" model has innovated forms, the practices can be concluded into 5 types: 1. Public-built and public-operating model, as represented by Chengguan District of Lanzhou City in Gansu Province; 2. Government-supervising and society-operating model, as represented by Baoding City in Hebei Province; 3. Government-supporting, public-built and private operating model, as represented by Hefei City in Anhui Province; 4. Government-supervising, private-responsible and public supporting model, as represented by Shiyuan City in Hubei Province; 5. Government and enterprise jointly built and operating model, as represented by Daoli District of Haerbin City in Heilongjiang Province.

Comprehensive analysis shows that there are many advantages of promoting construction of community information platform on ageing: information construction helps propel the transformation of government functioning, encourage more social resources to be distributed into the field and market-oriented operation mechanism to be introduced, while the government can focus more on macro planning, policy guidance, financial contribution, purchasing and subsidizing service and strengthening inspection, monitoring and regulating. However, there are some disadvantages as well: the guidance on the participation of social resources and service providers is not strong enough, the social service resources have not been integrated effectively, the content and the quality of the services available need to be expanded and promoted further, etc.

3. CONSTRUCTION OF NATIONAL INFORMATION SERVICE SYSTEM FOR DECISION MAKING ON AGEING

3.1 Prospect of Social Administration in Ageing Society

When we think about the aging issue from young generation's point of view, the old people tend to be regarded as a group which need to be supported by, cared by and depending on others, and they are easy to be isolated and marginalized by the mainstream society. But if we look from a different angle, it will be found that the old people should be treated as main part of the social production and life, the old person is dynamic force in ageing society.

In China, aged population is generally described as great population, fast growing speed, high peak, unbalanced structure, with the highlighted characteristics of old-old, empty-nest, better education, big gender differences, as well as family downsizing and low birth rate. With all these elements together, old people's issues progress toward ageing issue, and population ageing becomes a major contradiction between the long-term balanced

development of the Chinese population and the sustainable economic and social development.

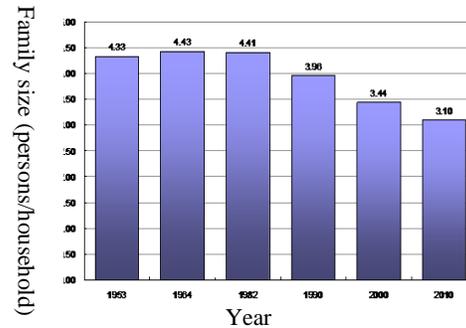


Figure 4. Changes of Chinese average family size

This contradiction happens when ageing has become a stable component of China's society, so it needs to be reflected and resolved under the same background. In order to adapt to the new requirements of the ageing society on social administration, a platform, or a bridge is needed to build to link the management and service, to get the precise basic data and evidence for the population ageing development and judgment, so as to protect the old person's rights and interests through old people oriented approaches, to enhance the economic and social vitality, to promote the country's capability of coping with ageing issue. To achieve these goals, China is planning and designing the construction of national information service system for decision making on ageing.

3.2 The designing of System Model

The national information service system for decision making on ageing is an open and comprehensive information platform, consisting of four functions: administrative management, industrial management, service agency internal management and public service. It will integrate series of platforms combining social security, medical treatment and public health, aged service, culture and sports, etc., and the information can be interconnected and data shared between all the platforms.

The main objective of the system is to integrate decision and service. In other word, the system is firstly used to integrate the resources and information scattered on different channels and platforms, uniformed data standard and specify the statistical caliber; secondly, the system is used to expand the ageing industrial chain, by mobilizing the system to innovate new programs for older people, cultivate the service team and enhance service effectiveness; thirdly, the system is used to extend the service from urban to rural, to achieve a balanced development as a whole, to promote the vital capacity and living standard of older people in the information society; fourthly, the system is used to increase the capacity, effectiveness and level of decision-making on ageing, to push forward age-friendly regulations, policies and measures, to form a national wide capacity to respond to the ageing issue.

The national information service system for decision making on ageing is an imperative project related to the livelihood of old people, and it's still under the piloting and improving process. Technical foundation has already existed, but many difficulties and problems are existing ahead, including: 1. *At the technical level*, how to form at national level a uniform information system, and code standards still need to be improved and designed; 2. *from the angel of system construction*, how to adapt to the double requirements of old people's demands and technical progress; 3.

from the view of data utilization, how to make the sub-system and the inter-system compatible and inter-sharing; 4. from the relationship of technology and policy, how to look at the relationship of "instrument" and "moral", how to deal with the ethical issues, and so on. Many more discussion and exploration regarding the system remain needed.

3.3 Case Study -- "Community Medical Treatment and Health Service System"

According to current system and mechanism of ageing work, the national information service system for decision making on ageing will be designed as a comprehensive information system compatible to series of business platforms.

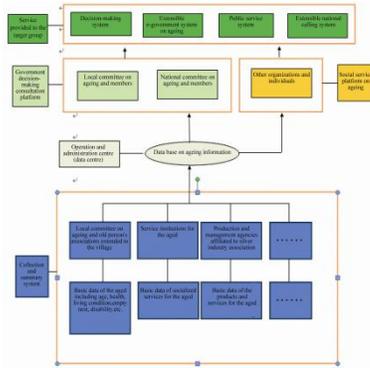


Figure 5. Analysis chart of platform user

For example, from 2003, China initiated the construction of the public health information system, part of which is an information center of community medical treatment and health service system -- "virtual hospital". It consists of 4 parts: residential networks, information center of community medical treatment and health system, home network and physiological multiparameter monitoring. The system is targeted at community residents directly to provide the basic information service, such as the electronic medical record, health files, track of disease, rehabilitation aid, doctor service, disease statistics and health monitor, etc.

The national information platform service system for decision making on ageing will be connected to the community medical treatment and health service system via the public health information system. On one hand, we can know about old people's health status and demands for medical treatment and health service through information sharing and provide appropriate old-age security services against various demands of the old people concerning health. On the other hand, comprehensive analysis can be made about the basic health data of the old people, including life style, health level, disease prevention and treatment, care needs and terminal care, etc. so as to provide evidence for the formulation and improvement of medical and health policies and overall policies on ageing.

At present, in Anhui province a "community & home service center on ageing" was set up, and service information platform on ageing was built in it as well. With the technical supports of modern communication, intelligent calling system, internet, GPS positioning, it connected the "virtual nursing home" with the "virtual hospital", equipped with the functions of information anti-burglary, age automatic renewal, hobby and disease

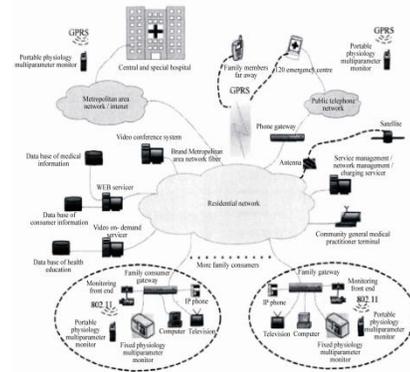


Figure 6. Overall framework of the community medical treatment and health service system

searching, electronic medical record, automatic medication reminding, return visiting, and etc. Its information data base was classified and analyzed based on the old person's needs, personal preference and health status, and was provide as scientific evidence for carrying out ageing work and expanding service for the aged.

4. CONCLUSION

In conclusion, this paper can be summarized as following: 1.the informational level on ageing decides the decision-making level on ageing work and the effectiveness of policy implementation on ageing; 2. The practical experience at grassroots has shown that the developing country should give the rein to the later-developing advantages, and use the best modern technology to decrease the supporting cost for the aged. 3. Developing the social service system on ageing of socialization, marketization, industrialization and reinforcing the fairness, pertinence and accessibility of the basic service for the aged, are the inevitable choices in order to protect the fundamental rights of the elderly.

5. ACKNOWLEDGMENTS

Many thanks to Professor Toshio OBI from Waseda University, Japan for providing me guidance on the paper professionally and patiently. My thanks go to the administrative department and information center on ageing of China National Committee on Ageing (CNCA) for generously providing me documents and materials related to them.

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