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## **Home and Community-Based Long-Term Care for the Elderly in China**

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## **Home and Community-Based Long-Term Care for the Elderly in China**

**Abstract:** Long-Term Care (LTC) provides daily assistance to elderly people who are incapable of living independently due to chronic physical, functional and/or mental disabilities. However, LTC is still an emerging concept in China, and the supply of LTC is also limited due to various issues. A content analysis of news coverage on 12 major portals in China was conducted to identify these issues. It reveals 12 significant problems in the supply of home and community-based LTC. For LTC service providers, the lack of qualified LTC professionals, limited service types/low service quality and unrealised integrated care, lack of steady profit patterns are the three major problems. The deficiencies of the LTC system and the lack of incentive policies and legislation for private investors' participation are the two major problems faced by the government. The public is confronted with a shortage of home and community support resources and unable to adapt to a change due to their mindsets. These issues not only provide some opportunities to various stakeholders in this area but also offer insights into the sustainable development of China's LTC industry.

**Keywords:** Long-Term Care; China; issues and opportunities; secondary data; content analysis

### **1. Introduction**

A society is considered old when the percentage of the population aged 65 and over exceeds 7%<sup>1</sup>. By this standard, China had entered into an aging society since 2001 (see Figure 1)<sup>2</sup>. It was estimated that the share would increase by 247% between 2015 and 2050, while the proportion of people aged 80 and above would grow even faster, increasing by 522% during the same period (see Figure 2)<sup>3</sup>.

**[Insert Figure 1]**

**[Insert Figure 2]**

With the advent of the aging society, the number of disabled and demented elderly people is also growing rapidly<sup>4-7</sup>. Such a situation causes a massive demand for Long-Term Care (LTC). LTC is expected to provide daily assistance to elderly people who have chronic physical, functional and/or mental disabilities and thus incapable of functioning independently on a daily basis<sup>8</sup>. In OECD countries, the demand for LTC use is increasing rapidly<sup>9</sup>. The situation in China is similar<sup>6</sup>.

LTC is a public service independent of aged care services and health services in most countries where it has been implemented. Compared with aged care services, it is more formal and requires more professional knowledge and skills<sup>10</sup>. Meanwhile, it has the characteristics of long-term and continuity when compared with health services. In China, 'Exploring the LTC system for the elderly' was proposed for the first time in the "Construction Plan of Social Aged Service System (2011-2015). The '13th Five-Year Construction Plan of National Ageing-Related Work and Aged Service System' released in 2017 also proposed to explore the establishment of an LTC insurance system. However, LTC is still a new concept in China and has not become an independent public service yet. In the current Chinese context, LTC for the elderly is essentially a combination of aged care and health services<sup>11</sup>, which reflects the concept of integrated care. In other words, it is generally recognised as an intermediate care service that provides living care, preventive health care, medical care, rehabilitation training and other services to the elderly, including those who are disabled and/or suffer from dementia<sup>12</sup>. Currently, the supply of LTC is far from adequate<sup>6</sup>.

Being provided by the government globally since its inception, many problems still exist in the supply of LTC such as low efficiency, unsatisfied demands and excessive

government intervention. At the same time, government provision is having a tremendous pressure on public finance. This has resulted in the need to privatise care since the 1980s<sup>13</sup>. Therefore, to promote the development of the LTC industry in China as a combination of public and private efforts and to improve the quantity and quality of such service, a thorough understanding of the problems that exist in the current LTC supply is vital. Unfortunately, the existing body of knowledge about LTC for the disabled and demented elderly is insufficient. Stakeholders, mainly the private investors and government departments, should understand those problems more clearly. Only when private investors have an in-depth understanding of the unique characteristics and problems in the Chinese market for the provision of care, can they formulate the right strategies to invest. For the government departments, an understanding of relevant problems could help them to initiate proper policies to ensure the healthy development of the industry.

Undoubtedly, the sustainable development of LTC industry will be affected if the issues in the supply process are not fully understood<sup>14</sup>. The research question of this paper is what exactly hinders the supply of home and community-based LTC for the elderly in China. Answering this question can provide valuable knowledge for various stakeholders to take advantage of opportunities that arise from a study of the issues and promote cooperation between the public and private sectors, thereby offering essential insights into the sustainable development of China's LTC industry.

## **2. The Development of LTC**

### *2.1. Home and Community-Based LTC for Elderly People*

The elderly can receive LTC services in traditional nursing homes or communities, and the demand for the latter is growing<sup>9, 15</sup>. The preference for community-based care can be explained by the drawbacks of institutional care, including its high cost and uncertain

service quality<sup>15, 16</sup>, and the elderly's sense of lacking freedom, autonomy, flexibility and choice in an institutional setting<sup>8, 17</sup>. As a result, almost all OECD countries had adopted policies over the past few decades to promote the development of community-based LTC, encouraging direct supply expansion, establishing regulatory measures and providing financial incentives<sup>9</sup>. While home and community-based LTC services have resulted in an increase in expenditure the short term, institutional expenditure has begun to decline, saving overall costs over the longer term<sup>18</sup>. However, it should be noted that although the elderly are keen to live independently in their own homes and receive home or community-based care, those with severe disabilities still need continuing care in nursing homes<sup>19</sup>.

## *2.2. Integration of Health and Aged Care Services in LTC*

With the improvement of economic and technological level, the change of social structure and the evolution of disease patterns, the aged care and health needs of the elderly are also becoming more and more complex. Historically, the aged care services of the elderly had been separated from the health services. However, conversion between different service providers might lead to the interruption of continuous care for individuals, resulting in sub-optimization of the system's overall effectiveness<sup>20</sup>. Government departments have recognised that health care and aged care are interdependent and need to be provided together<sup>10</sup>.

Integrated care had been introduced in the LTC industry, providing both health and aged care services for the elderly<sup>21</sup>. Such care includes the provision of a comprehensive package of services according to the needs of the recipients and their physical conditions to achieve seamless and continuous care for the elderly<sup>22</sup>. Professionals, policy makers and researchers consider integrated care as a complex phenomenon but to be an effective solution<sup>23</sup>. This method is also becoming an

effective way to provide LTC services for home and community-based elderly. The Program of All-inclusive Care for the Elderly (PACE) in the United States is an example <sup>24-28</sup>.

### *2.3. The Provision of LTC Services*

Historically, LTC services had been provided by the government. However, excessive government intervention resulted in insufficient supply and caused significant pressure on public finance. As a result, privatisation in LTC services supply emerged to complement public services since 1980s <sup>29, 30</sup>. Although the governments' responsibilities were not wholly abandoned, the intervention direction, means and methods have been changed. Meanwhile, the formulation of standards of care and supervision of LTC services have been strengthened <sup>13</sup>. Future care demands will require a better provision of LTC services by the governments and the private sectors.

### *2.4. The Development of Home and Community-Based LTC in China*

In China, LTC had gradually attracted the governments' attention due to the acceleration of the aging process and the increasing number of disabled and demented elderly <sup>31</sup>. Surveys of several Chinese cities have shown that most elderly people have a preference for home and community-based care <sup>12, 32, 33</sup> and the demand is high <sup>33-35</sup>. The reasons were mainly related to the relatively low cost and the sustaining of emotional ties <sup>33</sup>.

However, home and community-based LTC in China is still immature. Many studies have pointed out that China's LTC infrastructure is seriously lacking, especially in areas with high population density of the elderly <sup>34, 36</sup>. The satisfaction of most LTC receivers was low <sup>37-40</sup>. Most communities still focus on the fulfilment of elderly's basic living needs such as the living care and prevention of accidents, while rehabilitation training, medical care and other services are neglected. The shortage of professionals, low

service quality, limited funding channels also hinder its development<sup>12, 14, 34, 41, 42</sup>. Meanwhile, private investors' participation is lagging mainly due to the unsupportive policy environment, low-profit margin and limited capital capability and management skills<sup>41</sup>. Therefore, the government has to assume the most responsibility, which in turn puts enormous pressure on the fiscal system. As a result, the supply capacity of the current LTC industry needs to be investigated for further improvement<sup>43</sup>.

Given that the supply of proper LTC services is vital for the survival and quality of life of more than 40 million disabled and demented elderly in China and the sustainable development of the LTC industry, adequate and high-quality service supply must be ensured. To achieve that, a thorough understanding of the current issues that exist in the LTC industry is required. To date, no such study has been carried out to show the whole picture of these issues. Hence this paper addresses this research gap through a comprehensive content analysis of relevant news coverage on Chinese major portal websites.

### **3. Methods**

Content analysis is a research method that utilises systematic and objective means to make valid inferences from verbal, visual or written data to describe and quantify specific phenomena. It provides a mechanism by yielding interesting and theoretically useful generalisations with minimal information loss, which can greatly promote the accumulation of research and the establishment of theory<sup>44</sup>. This method can be used for several purposes, such as revealing individual, group, or institutional focus; reflecting cultural patterns and beliefs; and describing themes, trends, goals, or other characteristics in communication content<sup>45</sup>. Because of its emphasis on interpersonal communication, it is particularly suitable for research involving the practice and education of nurses and other helping professionals<sup>46, 47</sup>.



Media texts, such as newspaper articles, radio and television reports often provide data to be used for content analysis. They describe the current state very well and a significant number of reports can generate much information on a certain policy. This information not only highlights important issues that need to be considered<sup>48</sup>, but also influences the formation of public opinion and policies<sup>49,50</sup>. According to Riffe, Lacy, Watson and Fico<sup>44</sup>, even simple descriptive studies may be valuable for content analysis because they could serve as the the first stage of a research project. Many scholars have used text media as the object of content analysis to study the problem of aging<sup>51,52</sup>. In view of the many stakeholders (for example, the elderly, their families, the government departments, the private investors, etc.) and the importance of LTC, the mainstream media's coverage of LTC is critical and will provide information on the sustainable development of LTC.

Therefore, this paper has adopted a content analysis of media reports to study the problems in the supply of home and community-based LTC services in China. In addition, as the development of the LTC industry in China is still in its infancy, there is a lack of prior exploration on this issue up to date. Content analysis can provide more objective and reliable results (based on real and "mute" evidence) while at the same time consume less time and resources<sup>53</sup>.

In this study, news coverage on China's major portals was chosen as the source of media texts. According to the Code of Ethics of the Society of Professional Journalists, news coverage should be accurate, fair and comprehensive<sup>54</sup>. Since commercial internet services were introduced at the end of 1995, the internet has become an effective information medium for the Chinese public. As of June 2018, the number of Chinese netizens (or internet citizens) was 802 million, and the number of internet news users was 663 million<sup>55</sup>. China Internet Network Information Centre data showed that the

proportion of whole netizens who surf the internet every day was up to 61.9% between July and December 2016 <sup>55</sup>. Social news such as health care and education, which is closely related to people's livelihood, had become the focus of internet users' attention. The internet has developed into a powerful platform for disseminating government information, retrieving and expressing public opinions. In the meantime, about two decades ago, the Internet became the main point of content analysis <sup>44</sup>. Identifying issues in LTC supply is critical to LTC's success, as public perceptions can challenge or even undermine the advancement of LTC. As LTC-related news coverage is based on real case studies or interviews with home and community-based LTC stakeholders, those news reports contained valuable, knowledgeable and credible information, which can help to reveal the problems arising in the development of LTC industry in China.

### *3.1. Theoretical Base*

Policy science is the theoretical base of this research. It emphasises the relevance of knowledge and decision-making. The realism of the decision-making depends in part on the access to available knowledge reserves. Decision-makers may ignore important knowledge bodies unless steps are taken to change their cognitive map <sup>56</sup>. Therefore, this article will provide decision-makers, including government departments and private investors with relevant information about problems in the supply of home and community-based LTC to the elderly to help them make the right decisions. The aim of this article is not to establish a theory, but to determine some 'key concepts' involved in LTC supply, which will help establish the theory in the future <sup>44</sup>.

### *3.2. Sample Selection*

To select samples, the total population of all data sources must be determined first. Then, the researchers should choose a plan to generate samples representing interesting phenomena <sup>57</sup>. The sources of news coverage adopted in this study were China's portal

websites, which were identified by the list of ‘Top Sites in China’ released by the Alexa web ranking service providers<sup>58</sup>. Alexa listed the top websites of each country and region, along with its reliability, usefulness and acceptability<sup>59</sup>. In this study, 12 of Alexa's top 50 Chinese websites in 2018 were identified and adopted (see Table 1). This is because the remaining 38 sites are dedicated to specific services, such as internet search, social media, video, forums and shopping. Therefore, they had very limited relevant news reports, relevant to this study.

### **[Insert Table 1]**

Next, the news coverage related to home and community-based LTC in the 12 portals were retrieved by Google. The reason for using Google is that it is the most influential and powerful search engine in the world. A careful examination of news reports reveals that LTC has just begun to develop in China and is often confused with the concepts of care services and health services. Therefore, different Chinese phrases were used to express LTC in news reports, although these phrases might not always have the exact meaning with LTC. These phrases include ‘Long-Term Care (长期照护)’, ‘Long Term Nursing (长期护理)’, ‘Combination of Health and Care Services (医养结合)’ and ‘Integrated Care (整合照料)’. In July 2018, these four phrases were used to search in each selected portal website. Because the object of this study was home and community-based LTC, the term ‘home (居家)’ or ‘community (社区)’ was added to the search. For example, to search the ‘qq.com’ site, enter [("长期照护" OR "长期护理" OR "医养结合" OR "整合照料") AND ("社区" OR "居家") site: qq.com] in the Google search bar. The search results were restricted to ‘Google News’. A total of 3294 results were obtained. The headlines and contents of the 3294 news reports had been carefully screened, and the news that reported in detail the problems in the home and

community-based LTC supply in China had been selected (defined as having at least one passage devoted to problem analysis). This criterion allowed the news coverage to be devoted to substantive content on the problems in the supply of LTC rather than brief mentions (e.g., ‘LTC insurance solves the problem of funds, and guides the development of community-based nursing service’). Finally, a total of 70 news reports were selected for further analysis.

The most appropriate analysis unit was full-length interviews or observational protocols<sup>60</sup>. In this study, the unit of analysis selected is ‘individual news coverage’ which was large enough to be considered as a whole, because a complete news coverage helps to refine the problem correctly.

### *3.3. Coding and grouping*

Coding and grouping can be based on predefined systems, frameworks or analysis of collected data. Due to the lack of relevant systems and frameworks, this study relied on the analysis of the collected news coverage data. Through literature review and preliminary analysis of data, we summarised and described the problems of home and community-based LTC in China, and further classified the identified problems into different categories. Each category has specific attributes and therefore differentiates from other categories. It is important to use a particular framework or perspective to analyse the data.

### *3.4. Reliability Assessment*

In this study, two co-authors independently coded the 70 news coverages and classified the problems according to category schemes. Each person’s coding and category process was iterative. By switching back and forth between the text and output of content analysis, each author made gradual refinement and validation of the category scheme. But human errors are always possible in this process and may be related to

fatigue, personal prejudice and perception. Therefore, besides self-validation, the independent coding and grouping results of the two authors were compared. The inconsistencies were discussed by all the researchers and eventually reached consensus. The whole research process is shown in Figure 3.

**[Insert Figure 3]**

## **4. Results and Discussion**

### *4.1. Results*

Table 2 shows the 12 problems identified and their frequencies based on the content analysis. The top problem with the highest frequency is ‘lack of qualified LTC professionals’ (47.14%). This is followed by ‘deficiencies of LTC system’, ‘limited service types, low service quality and unrealised integrated care’ and ‘lack of incentive policies and legislation for private investors’ participation’, with all their frequencies being over 20%. The problems of ‘lack of credibility of the providers’ and ‘lack of information transmission and guidance to the public’ have frequencies less than 5%.

**[Insert Table 2]**

These 12 identified problems were further classified into three different categories according to their connection to different stakeholders, comprising home and community-based LTC service provider, the government, and the public. Six (42.86%) of the problems are associated with home and community-based LTC service provider, with another four and two being closely related to the government and the public, respectively (see Table 2).

### *4.2. Discussion*

#### **4.2.1. Main Problems Relating to Home and Community-Based LTC Service Provider**

(1) Lack of qualified LTC professionals

The most highlighted problem relating to home and community-based LTC service provider is the lack of qualified LTC professionals. Almost all countries are struggling with recruitment and retention of professionals in this sector <sup>9</sup>. According to the experience from the PACE program in the USA, it was necessary to train full-time staff through education programs if the PACE program wanted to continue <sup>27</sup>. Home-care staff in European countries such as Greece, Italy and Austria were also not adequate <sup>61</sup>. In China, there is a vast gap between supply and demand for both health and nursing staffs. Home and community-based LTC services are time-consuming and with high demand, which require tremendous workforce. Statistics showed that the number of nurses in China was less than 1 million, and less than 10% of them were professionally trained and certified at the end of 2015. It is inconceivable that the LTC needs of China's 40 million disabled elderly would be fulfilled by those nurses. On the one hand, the existing nursing staffs are not well-educated (only 6.8% of them have college or higher education, and 2/3 of them have junior high school or below education), old (nearly 80% of the staff are over 40 years old), and most of them come from rural areas with low service quality. Moreover, being influenced by traditional ideas, the social status of nursing staff is low, which leads to low average salary, making it difficult to attract talented people to the profession. In addition, China's talent education and training also lags behind the market demand. Only about ten institutions have nursing major, with the total number of students as only a few thousand. This implies that many talented people cannot afford further study, nor can they get better technology support. Such a situation will inevitably restrict its future development. Hence many potential professionals are forced to switch to other industries with better pay and more opportunities.

(2) Limited service types, low service quality and unrealised integrated care

LTC is neither general aged care nor pure acute medical care, but an organic combination of those two <sup>62</sup>. In theory, LTC services include a complete continuum of care such as acute medical services (e.g., in-patient and outpatient care, primary and special care, home health care, etc.), long-term care services (e.g., adult daily care, respite, home care services, etc.), and social services (e.g., counselling, housing services, etc.). It is challenging to organise continuous care at the interface between health and aged care because those two services are generally separately managed. The second major problem of LTC service providers in China is the limited service types, low service quality and unrealised integrated care. The primary manifestation is the low level of service provided by home and community-based services providers, which can only offer activities places, catering, simple recreational activities (such as playing cards) and basic life care for the elderly. Services such as preventive health care, medical care, and rehabilitation training are of severe shortage. One of the reasons for this problem is that services are provided separately by different suppliers such as housekeeping companies, professional nursing companies, etc.

In addition, due to the lack of professionalism, it is difficult for single company to provide integrated care according to the complex needs of the elderly. The fragmentation of care organisations and lack of coordination bring risks, especially when different home care providers serve the same user <sup>63,64</sup>. This is because first, users may have difficulty in choosing the right provider because they may not have enough information to make the right choice, unless an information support system for home care is developed <sup>9</sup>. Secondly, when individuals do not receive timely care, they may need more advanced care, such as going to hospital on an emergency, which undoubtedly increases the cost of the system and the elderly themselves <sup>65</sup>.

(3) Lack of steady profit patterns

The third major problem for service providers is the lack of steady profit patterns. The risk is too high for for-profits companies, according to a survey of profitable PACE programs in the United States <sup>66</sup>. China is facing the same predicament. From the perspective of service provision, the investment is substantial since such services are just starting in China and everything needs adequate investment until returns can be realised. Service providers are not only responsible for the establishment of service networks, personnel training, service standards establishing and other matters, but also facing the rise of human costs and site rent. In addition, the existing service projects are relatively small, mostly limited to one or two communities with the number of elderly people receiving services is limited, which lacks scale economy. This leads to high prices of those services that the elderly cannot afford. Meanwhile, the home and community-based service providers (including LTC services) will receive government subsidies when they cannot get enough payment from the elderly because of their low income. As a common phenomenon, many service providers take government subsidies as their primary income, thus losing the motivation to exploit other income sources. When the government delays the settlement, the service providers will face severe problems if they do not have enough reserves.

#### 4.2.2. Main Problems Relating to the Government

##### (1) Deficiencies of the LTC system

For the government, the biggest problem in the home and community-based LTC supply is the deficiencies of the LTC system. In addition to the shortage of professionals, the LTC system still has the following problems.

Firstly, there is a lack of stable and fixed financing mechanism. LTC insurance is the main source of funding, which is still in the pilot stage in China. The fund is mainly raised by optimising the health insurance account structure and transferring the balance



of the health insurance fund because the government does not want to increase the public's burden. But the allocation of resources between different funds is a big challenge. With the further growth of an aging population, the expenditure of social security fund will expand faster than the speed of economic development. Thus, insufficient funds will be a systemic risk faced by the whole social security system.

Secondly, the health and care service combination system is imperfect. The provision of combined health and aged care services for the elderly involves several administrative departments (e.g., the Health Planning Commission, the Ministry of Civil Affairs, etc.), and is prone to the issue of multi-management. In addition, the fragmentation of organisational management resources will lead to problems such as difficulty in forming policy synergy and lack of targeted public policies. Another problem is that the health security system is not yet sound. For example, a) the cost of home health services has not yet been included in the scope of health insurance. Many basic nursing items can be paid by health insurance if the elderly is hospitalised, but if the services are provided by professional institutions at home, then they cannot be paid. b) Hospital care is not guaranteed. The patient cannot stay in the hospital for more than ten days under the current health insurance policy. But ten days cannot solve many problems at all for the elderly in the terminal stage; hospice care cannot be guaranteed by the health insurance system. Besides, the combination of health and aged care services in rural areas is very backward. Some grass-roots medical institutions do not yet have the conditions of combining those services. Significant gaps in health management, chronic disease prevention, rehabilitation and health care services for the elderly in township hospitals, rural community clinics and village clinics still exist.

Thirdly, the various standards of the LTC system need to be drafted. The development of the LTC industry has been limited by the lack of unified national norms, for example,

disability grade, nursing grade, service standard and payment standard of LTC insurance. Industry regulation is also burdensome to carry out. In OECD countries, this problem is widespread. There is almost no measurement standard for the LTC, partly because of the difficulty of measuring outcomes. Initiatives to measure and improve LTC productivity are still in its infancy. Therefore, the quality of home care is seldom evaluated, compared and reported <sup>9</sup>.

Finally, LTC assessors lack professionalism. The main force of LTC assessment is the medical staff of community health service centre at present. Their enthusiasm to participate in the evaluation is not high because of the heavy daily tasks and insufficient driving force. Moreover, for community health service centre that provide long-term insurance services, the doctors are both assessors and service providers, facing the problems of authenticity and fairness. In addition, China lacks support policies for family members providing LTC services, such as family attendants' paid leave policy and compensation mechanism for enterprises. The presence of these problems has hindered the development of LTC system in China.

## (2) Lack of incentive policies and legislation for private investors' participation

The lack of incentive policies and legislation for private investors' participation is the second major problem for the government in the supply of home and community-based LTC. First, the private investors' access and exit mechanism is missing. The lack of qualifications, registration and approval regulations for private investors (including online nurses' platforms) and service staff lead to a wait-and-see situation. Such a situation also makes the participating investors' quality inconsistent, which will lead to an uncontrollability for the subsequent risks. Taking the door-to-door service of net-appointed nurses as an example, patients' nursing needs are at different levels, while the professional ability of "shared nurse" also varies greatly, with working experience

varies from one or two years to more than ten years. If nurses with little experience are allowed to provide service for the elderly with complex diseases, medical risks might emerge, and responsibilities are difficult to share. Second, support policies for private investors' participation are insufficient. The preferential policies for private investors are not clear which causes problems with implementation. Meanwhile, huge differences exist between urban and rural areas. Subsidies to urban LTC suppliers are big comparing with subsidies to sub-county suppliers. But in fact, rural suppliers need more support. Rural areas have not only low population density but also obvious distance barriers, greater challenges in bringing members to service locations and getting home caregivers to members' homes<sup>28</sup>. Lack of subsidies will inhibit the entry of private investors.

#### 4.2.3. Main Problems Relating to the Public

##### (1) Shortage of home and community supporting resources

Shortage of home and community supporting resources is the biggest problem the public is facing. Home and community LTC hardware is not perfect, which is mainly reflected in the poor facilities (such as the lack of aging renovation) and the misappropriation of facilities. It may be partly solved by new construction and renovation<sup>16</sup>. In the meanwhile, family caregivers are in short supply. China's one-child policy has made it impossible for the elderly to enjoy intergenerational care and support after its entering into an aging society. Under the trend of family scale miniaturisation, home care becomes difficult, especially for elderly parents who are ill in hospital with only one child. This is a big problem of home support for the elderly which is hard to overcome. But in fact, informal support from family members and friends is the most common form of LTC in the community environment. According to the research on PACE program in the United States, informal and family support is an essential

component to determine the success of the PACE model. For an elderly person who is too fragile to live alone, a PACE program must rely on informal support systems to provide supervision and care for the frail elderly during their absence from the Adult Day Health Centre.

(2) Being unable to adapt to a change due to mindsets

The second problem of the public is that it is unable to adapt to a change due to their mindsets. LTC service providers are the least respected. This mindset is not conducive to the recruitment and retention of professionals. Meanwhile, the public perception of home and community-based LTC is lagging. It is mainly reflected in three aspects: a) Lack of understanding of the concept of home and community-based LTC for the elderly. Unlike traditional family care, home and community-based LTC is a new mechanism in which families, society and the government share responsibilities. It includes not only the government's purchase of services but also the elderly's self-purchase. Currently, the former is the most publicised, which gives the public the impression that home and community-based LTC is the government's responsibility. As a result, people's expectation is transferred to the government, which not only increases the burden of the government but also affects the sustainable development of the LTC system. b) The exclusion of home and community-based LTC itself. Many family members have a sense of exclusion for the elderly who need LTC, especially for patients with Alzheimer or psychiatric disease. Accepting LTC service at home is considered as a dishonourable thing for the whole family, and the elders must be sent to institutions. c) The exclusion of community-based care centres. Many residents are reluctant and feel uncomfortable if community-based care centres are built downstairs although they need the services. Such care is supposed to link with illness and death, which is unlucky.

## **5. Conclusions and Limitations**

With the rapid population aging, the number of disabled and demented elderly is increasing in China while the demand for home and community-based LTC is increasing. As an independent public service, LTC is different from traditional aged care services and health services; its supply must be strengthened. In order to promote the cooperation between public and private sectors and the sustainable development of the industry, a comprehensive content analysis of relevant news coverage on Chinese major portal websites had been conducted in this paper to study the problems in the supply of home and community-based LTC services in China. Twelve of Alexa's top 50 Chinese websites in 2018 were adopted as China's portal websites, then the news coverage related to home and community-based LTC in the 12 portals were retrieved by Google. Finally, 70 out of 3294 news reports had been chosen for the analysis. Twelve problems were identified and further classed into three different categories according to their connection to different stakeholders. For home and community-based LTC service providers, lack of qualified LTC professionals, limited service types/low service quality and unrealised integrated care, lack of steady profit patterns are the three major problems. Deficiencies of the LTC system, lack of incentive policies and legislation for private investors' participation are the two major problems for the government. Meanwhile, the shortage of home and community support resources and being unable to adapt to a change due to mindsets are the problems of the public.

The findings presented in this paper will provide the means to understand the home and community-based LTC market in China for private investors and government departments, which will help to promote government departments and private investors cooperate in this area. By analysing the existing problems and their situation in China,

private investors can make proper strategic choices and improve their competitiveness in the market. Home and community-based LTC has a massive market in China, but the current industrial environment is not ideal. LTC system has deficiencies, government incentives and legislation are lacking; the mindsets of the public have not changed. If private investors want to enter this market, they must make a comprehensive evaluation of their abilities in professional recruitment and training, the provision of integrated care and the expansion of profit patterns. While government departments can be more targeted in formulating industrial policies and guiding the public, to promote the development of home and community-based LTC industry. In addition, the findings from this study can provide valuable inspiration for further research by using other methods such as interview and questionnaire survey because there has been no similar research before.

The limitation of this paper is that news reports searches were conducted only for portal websites which were retrieved by Google. Although news websites and business portals still occupy a place in the Internet news market (CNNIC data showed that 37.1% of users browsed news through PC-side websites in the last six months, of which 51.3% had browsed business portals), it is undeniable that mobile terminals have become the main competitive market<sup>67</sup>. CNNIC user data showed that in the past six months, 90.7% of the Internet users browsed news through mobile phones, 62.9% browsed news only by mobile phones, and 85% browsed news most frequently by mobile phones. Mobile social platforms and mobile browsers have become the main entry source of Internet news users. Meanwhile, 74.6% and 35.6% of the users had used WeChat and Weibo (popular social media platforms in China) to get news, 54.3% used mobile browsers, and 35.2% used news clients in the last six months<sup>55</sup>. Therefore, follow-up research

can pay more attention to mobile news, such as WeChat, a news client and other news sources.

Another limitation is that this paper only made a descriptive study of news coverage -- the problems in the supply of home and community-based LTC for the elderly in China. Although descriptive study is valuable <sup>44</sup> and useful for practical problems and in identifying key categories <sup>46</sup>, future researchers can try to explore the causality of these issues. That is, the “why” question.

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## Tables

Table 1. The 12 major Chinese portal sites for content analysis

Code	Website	Rank in Alexa List (2018)
1	qq.com	2
2	sohu.com	5
3	sina.com.cn	7
4	gmw.cn	20
5	xinhuanet.com	25
6	eastday.com	33
7	163.com	35
8	china.com.cn	36
9	chinadaily.com.cn	37
10	caijing.com.cn	40
11	huanqiu.com	41
12	youth.cn	48

Table 2. Problems in the supply of home and community-based LTC for the elderly in China

Category	Code	Problems	Frequency (%)
	1	Lack of qualified LTC professionals	47.14

Home and community-based LTC service provider	2	Limited service types, low service quality and unrealised integrated care	25.71
	3	Lack of steady profit patterns	17.14
	4	Difficulty in obtaining the site and unreasonable site selection	7.14
	5	Lack of subdivision of the elderly's needs	7.14
	6	Lack of credibility of the providers	2.86
The government	7	Deficiencies of the LTC system	41.43
	8	Lack of incentive policies and legislation for private investors' participation	25.71
	9	Difficulty in implementing the policies	7.14
	10	Lack of information transmission and guidance to the public	2.86
The public	11	Shortage of home and community support resources	17.14
	12	being unable to adapt to a change due to mindsets	15.71

## Figures

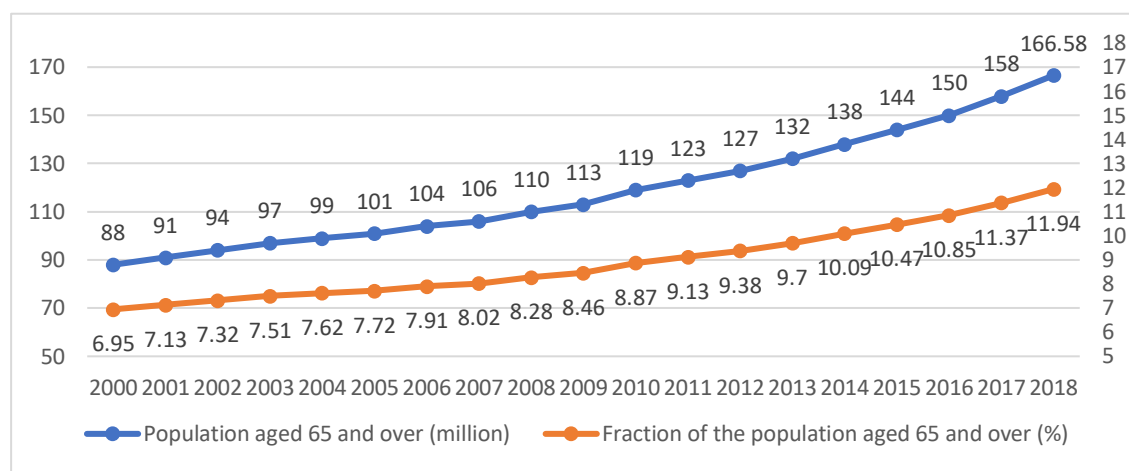


Figure 1 Change trend of the population aged 65 and over in China  
(Data source: 2000-2018 Chinese Statistical Bulletin of National Economic and Social Development)

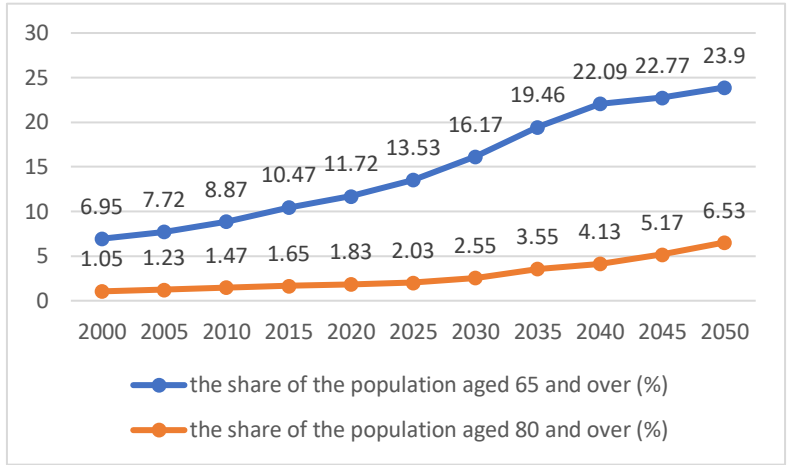


Figure 2 The share of the population aged 65/80 and older in China  
 (Data source: OECD report “Historical population data and projections (1950-2050)”)

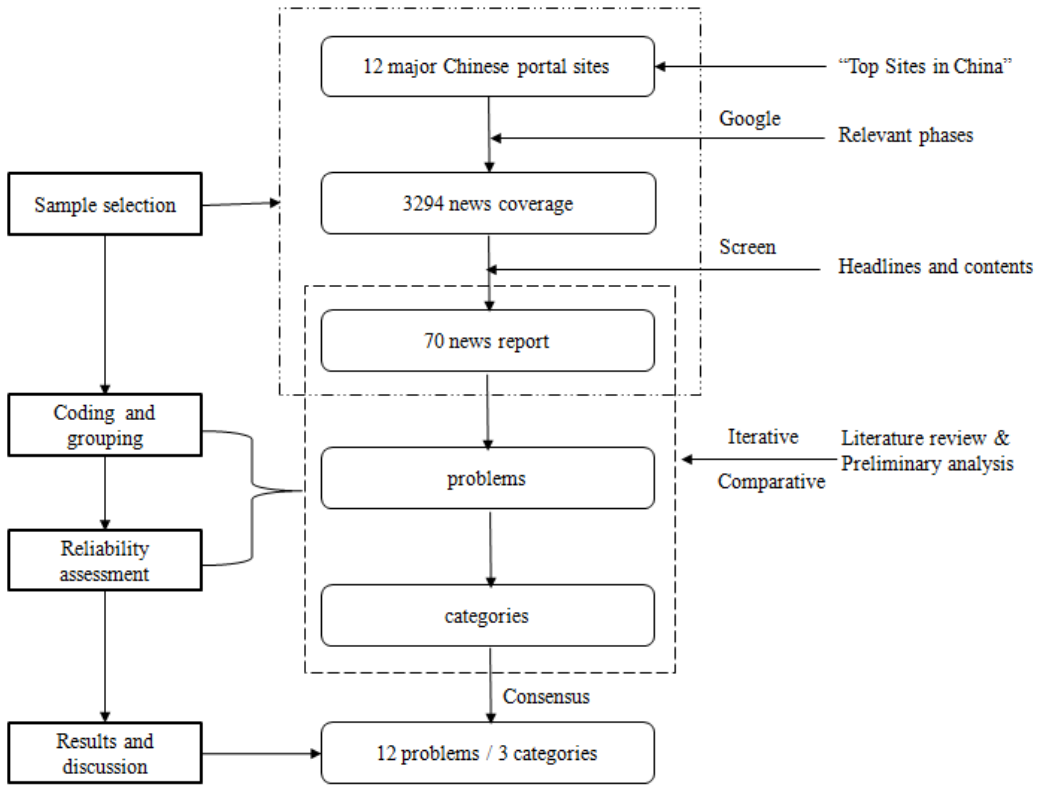


Figure 3 Research process