

**Planning Senior Living Homes for the Satisfaction of  
Active Elderly**

A Thesis Presented to the Faculty of Architecture and Planning

COLUMBIA UNIVERSITY

**In Partial Fulfillment of the Requirements  
for the Degree Master of Science in Urban Planning**

By Xiaomin Qian

May 2015

## **Abstract**

The study of the Chinese active seniors' living satisfaction in different types of senior homes is conducted in a structured and comparative way. The research is aimed at suggesting an appropriate strategic plan about senior home development based on in-depth representative case investigations in Shanghai, which show a sketched big picture for the current senior home provisions. I have collected qualitative and partially quantitative data on senior living home scale and structure, physical environment and social environment. The three hierarchies of the factors contribute to the informational and organized research. Observation, questionnaires and face-to-face surveys are applied for obtaining factor evaluations and overall life satisfaction data from residents in targeted senior homes. The research is composed of empirical case studies and comparison Analyses. Planning and governmental policy suggestions are given according to research findings for future senior home development.

## **Acknowledgement**

I would like to express my gratitude to all the people who have helped me in the process of forming and revising this thesis. To begin with, I would like to thank my advisor Xin Li for her guidance and comments in the whole academic year. Besides, I would like to thank my reader Michael Gilliard for his insightful suggestions and engagement.

In addition, my sincere gratitude also goes to honorable Mr. Xi Zhiyong, Mr. Li Xiaodong, Mr. Shi Bing and Ms. Lin Yuying, for enlightening my research ideas and sharing precious practical experiences with me. I would like to thank Alexandra Watson and Bin Chen for their continual advices in terms of writing details.

Last but not least, I would like to thank my parents and friends for their strong support, warm care and encouragement.

# Table of Contents

<b>Introduction .....</b>	<b>1</b>
<b>Background and Settings .....</b>	<b>4</b>
Chinese Senior Living Home System .....	4
Senior Living Homes in Shanghai .....	5
Senior Demographics in Shanghai.....	9
<b>Literature Review .....</b>	<b>13</b>
Age Integration or Segregation? .....	13
Built Environment.....	15
Senior Demands and Home Preferences .....	16
Home Quality and Satisfaction Evaluation .....	18
<b>Methodology and Data .....</b>	<b>19</b>
Methodology.....	19
Data Collection and Process.....	20
<b>Findings and Comparative Analyses .....</b>	<b>22</b>
Shanghai No. 1 Elderly Home Case .....	23
Shanghai Xijiao Union Retirement Center Case.....	26
StarCastle Middle Ring Community Case .....	29
Cherish-Yearn Membership Senior Community Case.....	32
Comparative Analysis.....	35
<b>Discussion and Implications .....</b>	<b>42</b>
Research Discussion.....	42
Planning Implications and Suggestions .....	44
<b>Conclusion .....</b>	<b>47</b>
<b>Reference.....</b>	<b>49</b>
<b>Appendix .....</b>	<b>53</b>
A. Senior Survey and Interview .....	53
B. Practitioner Interview Questions .....	54

## List of Figures

Figure 1 Shanghai City Center Area .....	5
Figure 2 Six Main Commercial Centers in Shanghai .....	6
Figure 3 Senior Institutional Bed Supply .....	7
Figure 4 Annual Bed Numbers in Shanghai Senior Living Homes .....	8
Figure 5 Family Sizes in Major Years .....	9
Figure 6 Senior Self-reported Health Status .....	11
Figure 7 Senior Major Income Source .....	12
Figure 8 Senior Marriage Statuses .....	12
Figure 9 Ideal Type of Social Structure .....	13
Figure 10 4-2-1 Family Structure Illustration .....	14
Figure 11 Maslow's Hierarchy of Needs .....	16
Figure 12 Satisfaction Model for Community Living Seniors .....	17
Figure 13 3-D Axis Research Focus Framework .....	22
Figure 14 Four Selected Senior Living Homes Cases .....	23
Figure 15 The #1 EH Building .....	24
Figure 16 #1 EH Survey Result .....	25
Figure 17 The Xijiao URC Buildings .....	27
Figure 18 Xijiao URC Survey Result .....	29
Figure 19 The StarCastle Building .....	30
Figure 20 StarCastle Survey Result .....	32
Figure 21 The Cherish-Yearn Community .....	33
Figure 22 Cherish-Yearn Survey Result .....	34
Figure 23 Overall Satisfaction Evaluation Comparisons .....	40

## List of Tables

Table 1 Senior Education Facilities .....	10
Table 2 Urban Household Per Capita Disposable Income - by Income Levels .....	11
Table 3 Senior Living Community Study Factors .....	19
Table 4 Case Basic Information Comparisons .....	36
Table 5 Senior Interviews and Surveys Result Summary .....	39

## **Introduction**

China is experiencing a dramatic population-aging period as the social economy, living environment and healthcare standards are being rapidly improved. People are longevity and there are urgent demands for the supply of qualified senior living options and services for the rapidly aging population. According to the Ministry of Civil Affairs of the People's Republic of China (2014), there are over 202 million people aged over 60, which is 14.9% of the total population. Comparing to other countries, China has the largest number of seniors, accounting for over 20% of the total elderly population worldwide. In addition, it can be estimated that about 184 million Chinese will be over 60 in the next 10 years (National Bureau of Statistics of China, 2010). The aging problem is a tremendous challenge not only for the Chinese government, but also for the entire society. Such a serious situation raises the question: who should take care of these senior citizens? How can they live an enjoyable old age?

Currently, the family structure is enormously changing along with the evolution of the society and the weakening of home-based caring for the elderly functions. Chinese family size is shrinking and becoming more simplified due to various factors including the "one child policy" established in the 1970s, high labor mobility for better living standards and people's view points toward marriage. Decreasing posterities result in a fierce and mandatory transformation in traditional concepts of senior caring. Increasingly, younger adults leave their elder parents behind pursuing better income, which brings about the "empty nest" phenomenon. "Empty nest" is often used to refer to a family with only the old couple or one aged person living alone in the household while young children leave home (Liu & Guo, 2007). This vulnerable group may have more financial support from their migrated children. However, physical and psychological care, which is the most important demand for the elderly, has been significantly diminished (Luo, 2009).

Due to the dilemma of urgent need but limited family support for senior care, there are gradually more society-run senior homes encouraged by government policies and market mechanisms. Chinese government has put efforts to improve its pension system as well as introducing senior caring policies and regulations in recent years. The market is also reacting actively to the government stimulations. An increasing number of companies in different industries enter the senior living market, including real estate developers, insurance firms and overseas investment trusts. Various development models are being explored trying to meet the senior living demands through providing more qualified housing and services.

However, the policy support for providing senior dwellings is still insufficient and the housing market specifically targeting seniors is immature. The imbalanced resource distribution between public and private senior homes results in polarized usage of society-based caring facilities in terms of occupancy. Too many people are queuing up for well-operated, good quality senior facilities, while poor quality ones have

encountered the fate of being closed down. Most senior living homes only provide a place for the elderly to sleep and a minimum number of basic living services, which is far from the aim of “taking good care” of seniors. Besides, a great gap among different income levels in various regions leads to huge inequity in social resource and welfare distribution. Obviously, such a gap leads to the result that the low-income elderly can hardly access satisfying living environment, which includes both physical and social aspects.

In brief, the existing problem is that the huge senior population badly needs appropriate living conditions for old-age years with comfort and/or esteem. However, the Chinese society, neither small families nor social parties, has come up with an effective system providing enough supply to relieve the current dilemma. In order to relieve the issue, we need to know: what are the factors that support senior life satisfaction? Possible influential factors may include but not limited to the economic attribution, social support level, living conditions, neighborhood environment and accessible services (Yan, Gao & Lyon, 2014).

Deriving from the real-world problem and its essence, my research questions are: what kinds of living environment are appropriate for various types of seniors? What policies may be effective for developing or improving such living environment? The living environment is consisted of both physical and social aspects in senior homes. The physical environment involves location, living conditions, senior services, entertainment and exercise facilities and so forth. The social environment includes family care, neighbor relationships, social network and so on. I studied the group of seniors who are active and live in senior institutions or communities in urban and suburban areas in Shanghai. The standard of being “active” is that the senior is healthy enough to live independently and have enough financial support to live comfortably. It can be estimated that these active seniors are the main component in total elderly population. They are living in a comparatively enjoyable status according to a survey conducted by Ning et al. (2002). The purpose of this thesis is to explore helpful development strategies and policy suggestions for senior living environment improvement and development so that more senior population may have satisfied old age life.

The purpose of this thesis is to help improve or develop the individual senior living homes to become more adaptable and accepted by general Chinese elderly. In this way, some of the senior living and care pressures can be relieved to some degrees gradually. I propose that planners should keep a big picture of demands and supply distributions in mind, focusing on reasonable new developments or adaptive re-uses of senior living homes in both City Center and suburban areas. The government should balance the standard for subsidizing the public and private senior homes in terms of land, tax and daily operations, as well as standardizing the senior living homes regulations with executable and transparent details. Private senior homes owners should consider the positioning and financial feasibility in the process of location selection, physical environment design and social interactive program introduction.

For the structure of this paper, it begins with the section of background to introduce the existing Chinese senior living home system, the current Shanghai senior living home

conditions and the senior citizen demographics in Shanghai. I have provided an overview of different types of living environment in this part. The second section is literature review on previous studies in senior living homes. The third section includes detailed research data and methodology, which is the case study and comparison. Then the study observations and survey results findings are shown in the fourth section. I have taken four typical reputable senior living homes in Shanghai as case studies based on the field trip investigations. Qualitative interviews and quantitative surveys have been designed and conducted to measure the residents' life quality and satisfaction in these senior living homes. I have applied descriptive and comparative analysis to find senior satisfaction on specific aspects of their living environment and the reasons for their evaluation. The fifth part is to discuss about planning and policy recommendations in supporting the healthy growth of senior living home. A final conclusion critically summarizes the study and future research directions.



## Background and Settings

### ***Chinese Senior Living Home System***

Depending on the objective of research, scholars categorize senior living homes by different terms, most commonly ownership and operation model or the composition of living units. In terms of operation models, senior living homes in China can be divided into three types: government owned and operated, government-built private-operated and private owned and operated senior homes. It's not hard to understand the first and third kinds of senior living homes. The government-built and private-operated ones refer to a public and private cooperation, in which local government supplies the land and builds the physical senior using structures. The private partner is responsible for the operation of the senior living homes. The separation of ownership and management rights is an innovative method to increase the current inefficiency in public senior homes (Lee, 2013).

Another classification of senior living homes depends on the living units, which involves senior living institutions and non-family senior living housing. The elder care institution or *Yanglaoyuan* (养老院) is an enclosed and administrated place for senior collective residence under the special Chinese society context (Zhan, Luo & Chen, 2012). The non-family housing combines institution and home-style life, focusing on professional senior care services in collective apartment environment. The institution's unit is in bed or person, while the non-home housing provides entire private living space. The former pattern is the traditional aggregated senior living form. The latter residential style doesn't appear until recent years in Chinese society, but it's largely adopted in developed countries like the U.S and Japan.

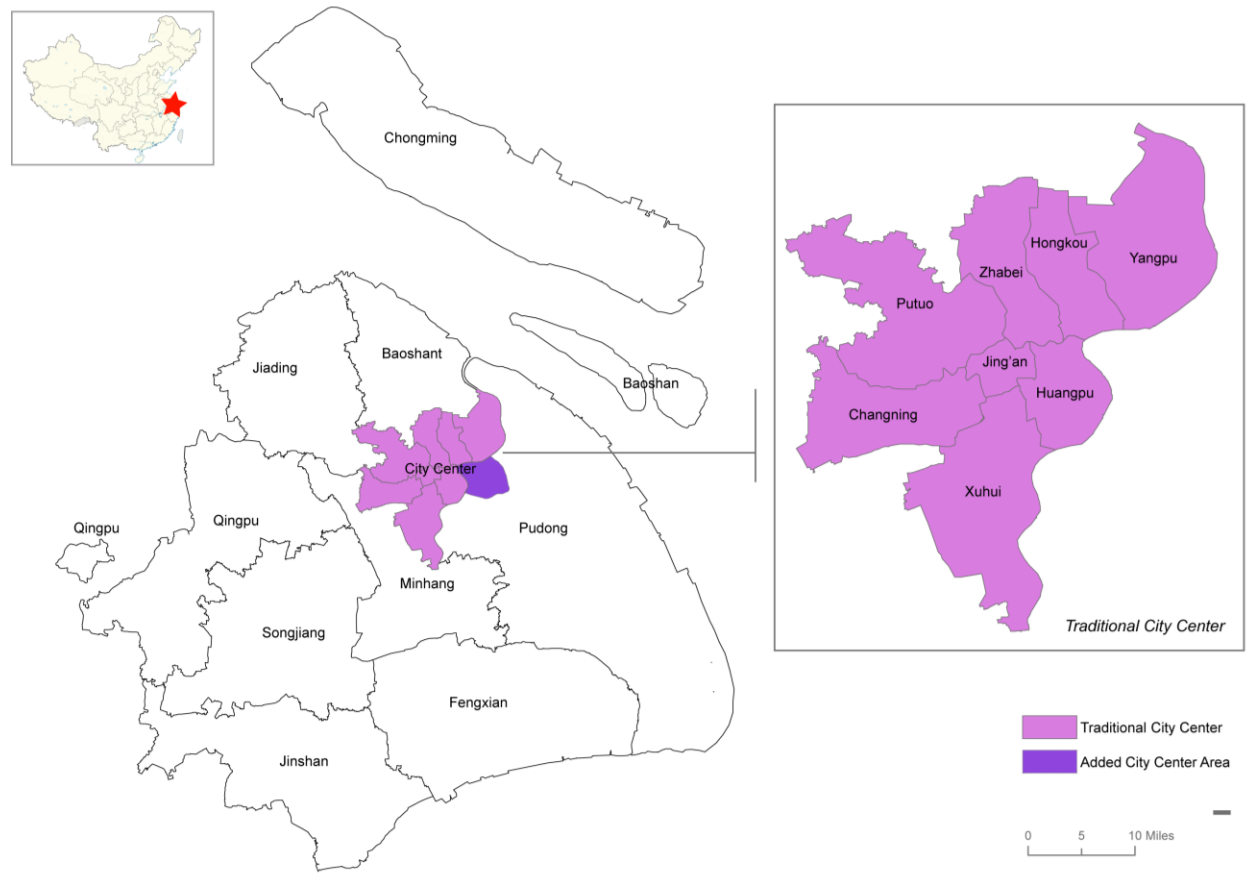
Before clarifying the different characteristics for senior care institutions and senior living housing, I have to explain the concept of "community" in Chinese society, which is different from common western perceptions. Because of historical influences, Chinese communities often refer to specific physical complex of real estate projects, which is a recognizable unit in Chinese cities called *Xiaoqu*. This residential unit is mainly popularized starting from the 1980s and 1990s housing reforms. During that period, national policies supported housing welfare allocation through State-owned industrial enterprises (*Danwei*), which encourage large housing estates catering the professional or managerial middle class workers and the rich (Li, Zhu & Li, 2012). In 1998, the housing reform terminated the housing welfare allocation. At the meantime, the government put much emphasis on real estate industry. These events together stimulated developers building gated housing structures (Li, 2005). The communities are enclosed and consequently make people regard *Xiaoqu* as common living clusters.

Different scaled senior homes have distinct relationships with *Xiaoqu*. For large-scale institutional care space, it is often enclosed and can easily bring an isolated feeling, but this is a way to use limited resources most efficiently in relieving large senior care demands. The small-scale institutions are mostly a building or houses embedded in residential communities. Such living facility may have low housing and service quality with cheap costs. When it comes to large-scale senior housing, the whole senior living community can all serve the elder residents enrolled in the *Xiaoqu*. Such pattern

guarantees the satisfaction of senior physical and social care demands. In most circumstances, the living quality is high at the cost of expensive monthly fees and upfront payments. Small-scale senior housing are also included in a larger *Xiaoqu*, which decrease the senior residents' social network, but increases the possibility of integrating into the community. In developed countries, this type of housing represents a low-density senior living environment (Chen & Hu, 2013).

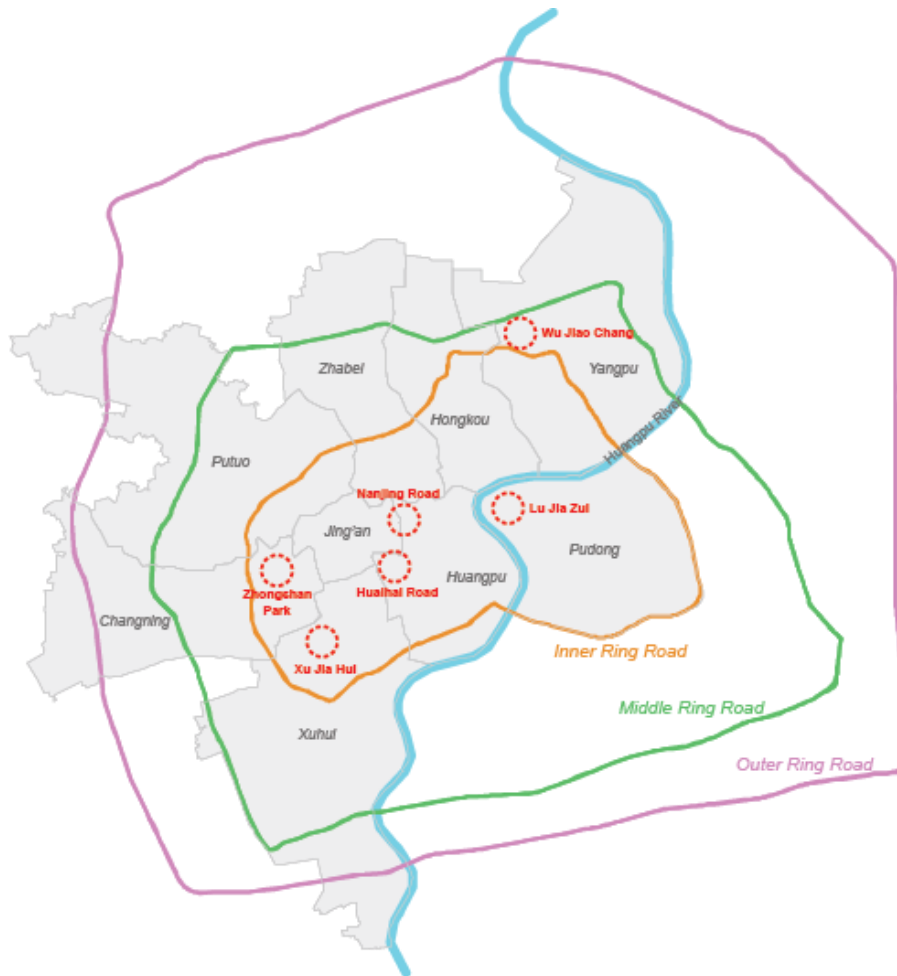
**Senior Living Homes in Shanghai**

Located in the east of China, Shanghai has 16 districts and one county. The traditional “City Center” includes 8 districts with small areas in the geographical center. In recent years, Shanghai city center added a part of areas inside the “Inner Ring” in Pudong District (See Figure 1). However, in fact, as more commercial centers have boomed in Shanghai, people’s perception of downtown area or Central Business District (CBD) is blurred. There are many commercial centers in Shanghai, in which six of them are the most popular and well known (See Figure 2).



**Figure 1** Shanghai City Center Area

Source: Created by Author



**Figure 2** Six Main Commercial Centers in Shanghai

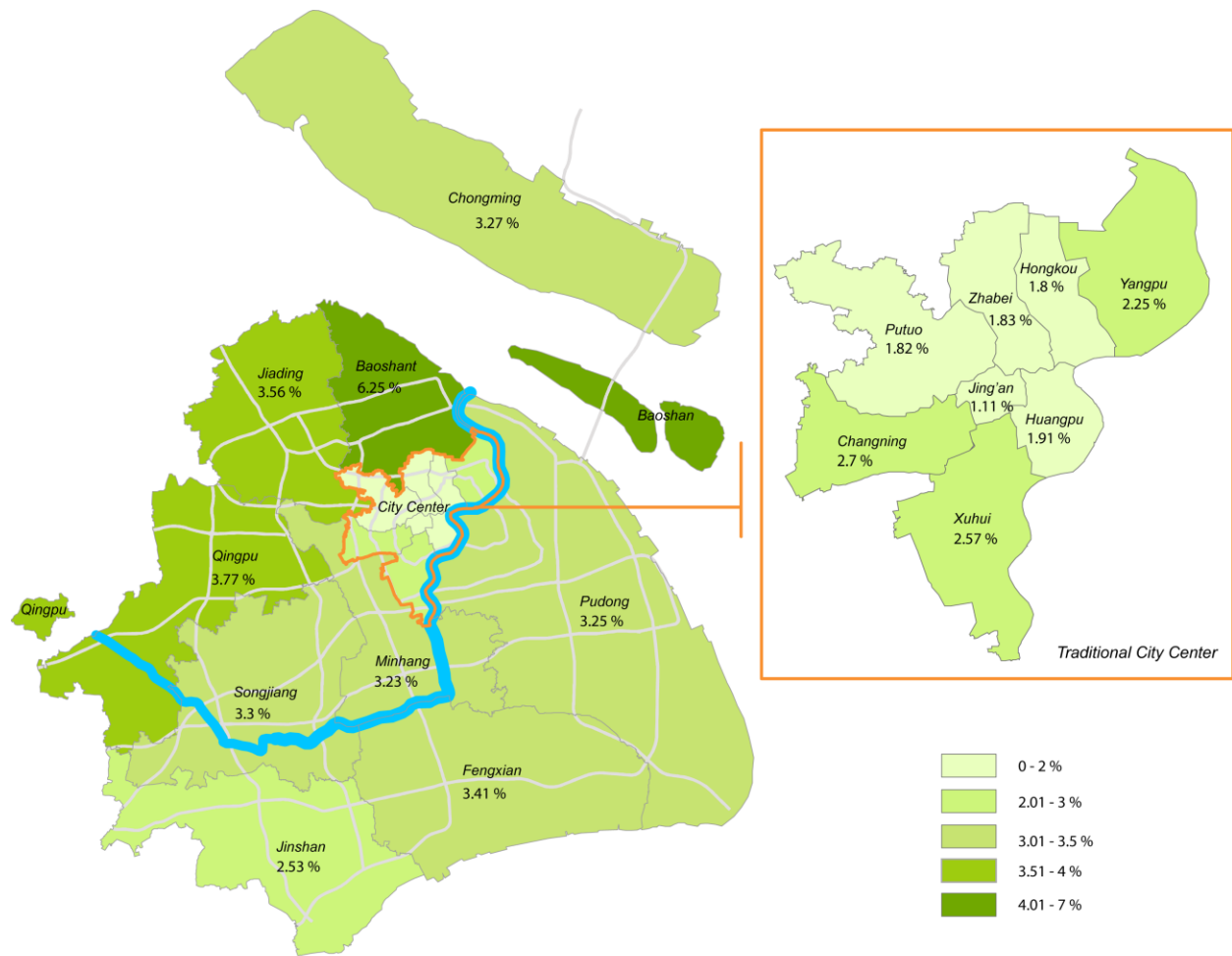
Source: Created by Author

As the conditions in these downtown areas are convenient and resources are rich, the senior care homes situated in these districts are extremely popular. While among those in suburbs, many have occupancy rates below 60%<sup>1</sup>. The unbalanced occupancy rates in downtown and suburban areas result in a large waste of the senior resource. In 2012, although there were 1 billion senior-living beds, only 64.6% beds were occupied. Such a high vacancy rate was mainly due to the huge dwelling quality and location difference. We can also find that the senior institutional bed supply in downtown areas is far below the 3% of senior population (See Figure 3). This proportion comes from the governmental goal in senior home provision proposed in the 11<sup>th</sup> Five Year Plan in China<sup>2</sup>, which is the master plan guiding the economic development during the years 2006 – 2010. Senior living homes in downtown areas are close to transportation and easy access to advanced health care system. While the land price and housing

<sup>1</sup> CCTV Financial News (08192012). How to live our old-age years?  
<http://jingji.cntv.cn/2012/08/19/VIDE1345382281606172.shtml> Accessed on Mar. 28, 2015

<sup>2</sup> Chinese Political Consultative Conference, Shanghai Committee  
<http://www.shsxx.gov.cn/node2/node4810/node5136/node5140/userobject1ai42951.html> Accessed on Apr. 10, 2015

development cost are extremely high in the city, especially downtown areas. A large number of senior institutions rent buildings that are not specially designed for seniors. The government subsidy for non-public senior living home construction and operation is low. Shanghai Municipal Government provides an average amount of 50 million yuan annually to support senior home construction, which mainly goes to public senior institutions. Almost over 90% of the capital comes from the private sectors and the district/county governments<sup>3</sup>. However, different districts/counties have extremely different financial conditions, and most suburban area governments have limited capital resource but have the most feasibility and demand to build more senior homes. Due to the unpromising market and operation difficulties, the number of non-government senior living homes has decreases in recent years. This is one of the bottlenecks in senior home development.

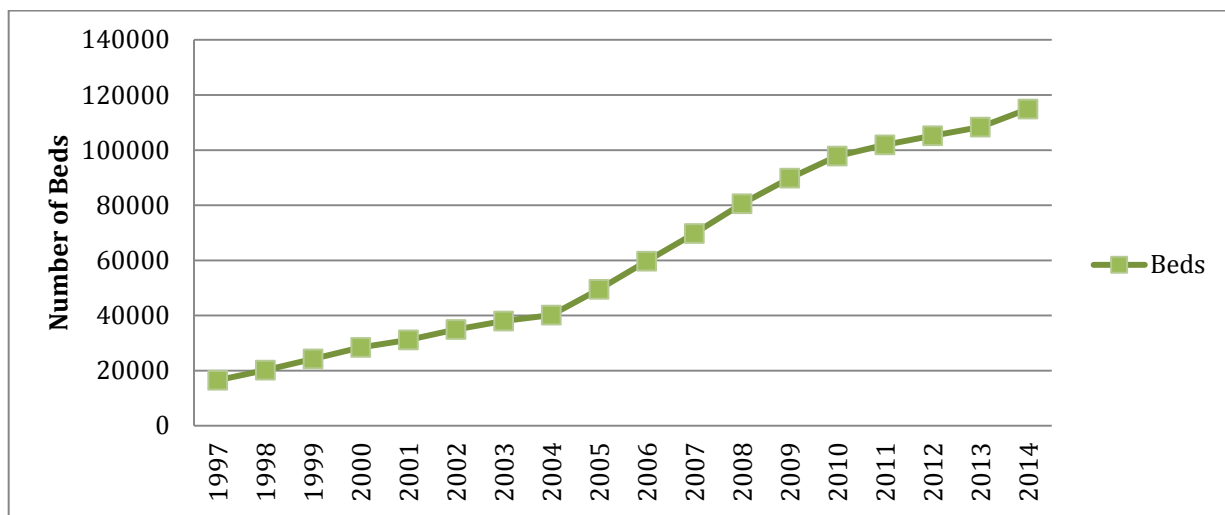


**Figure 3** Senior Institutional Bed Supply

Source: Created by Author

<sup>3</sup> Shanghai Social Science Urban and Population Development Institution. “Senior Care Demand Peak is Coming, but the Number of Non-governmental Senior Institutions is decreasing”. Jul. 25, 2014.

As one of the cities with high proportion of elderly in China, Shanghai is expected to encounter more challenges in the years to come. The current insufficient supply of senior institutional homes and immature senior living community operation reality expresses the huge demands and necessity to improve. The Shanghai Civil Affairs Bureau announced that as of the end of 2014, community-based senior services are provided to home-based senior care elderly. A total of 224 senior service centers, 381 senior day care centers and 576 meal service centers serve 294 thousand senior citizens<sup>4</sup>. There are a total of 660 institutional senior homes with 114.9 thousand beds in Shanghai. Among these elderly living institutions, 326 are public and 334 are invested and operated by non-government organizations. The total numbers of beds count as 583 thousand and 566 thousand respectively. There is a net growth of 6,536 senior beds in the year 2014. Shanghai government planned in 2010 that 250 thousand new beds should be created in this five years and the total number should achieve 1250 thousand, in which two thirds should be public built. However, according to annual bed numbers (See Figure 4), we can find that the speed of increasing beds after 2010 to 2013 is relatively slow. Currently, it seems hard for Shanghai government to achieve the goal it set 4 years ago. Only if 101 thousand more beds being built in 2015 can Shanghai get a total of 1250 thousand beds. This problem of lacking social private power in senior care industry is not only serious in Shanghai, but it's indeed a national wide issue (Yang, 2013).



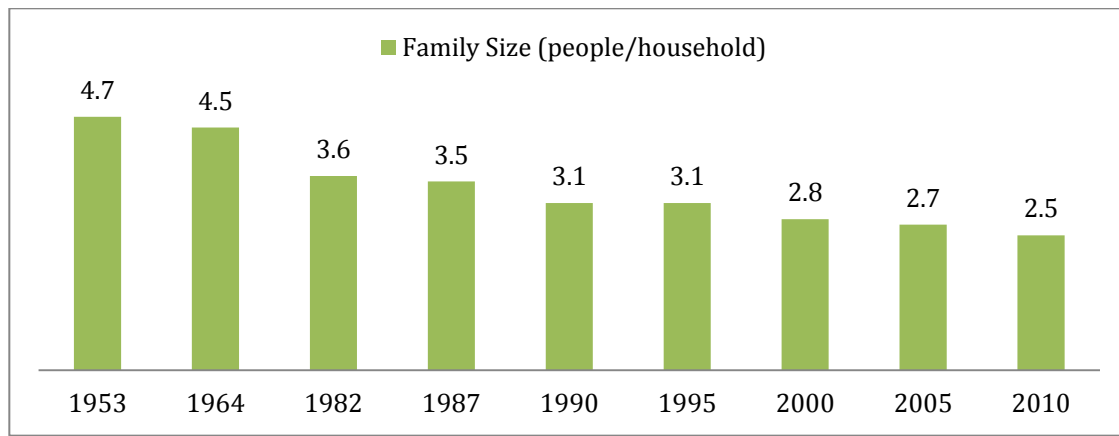
**Figure 4** Number of Beds in Shanghai Senior Living Homes, 1997-2014

Source: Shanghai Social Science Urban and Population Development Institution

The development of senior living homes in Shanghai has slowed down in previous years, but the number of elderly will continue to increase rapidly. According to statistic data, family size has shrunk (See Figure 5) from three generation (3-6 people) to two generation (2-4 people) and is gradually showing the trend of one-generation

<sup>4</sup> The Sixth Population Census Data Brochure-Shanghai.  
<http://www.stats-sh.gov.cn/sjfb/201203/239823.html> Accessed on Mar. 8, 2015

households (1-2 people). The shrink of family structure has weakened senior care in both physical and mental perspectives, and economic support may also reduce. An increasing number of seniors have fewer children because those who were born in 1955 probably have their children in the 1970s, and one-child policy was strictly implemented from that time. As family care functions lost, elder seniors, the disabled and childless seniors will have huge demands for senior living institutions when they need living assistance. The long-term estimation for the number of senior citizens is 6.5 million to the year 2050 (Zhou, 2014). Let's assume that 3% of the seniors will choose senior living homes, then about 200 thousand beds are needed (based on traditional institutional senior accommodation), which means current senior living facility resources should be doubled. In addition, the non-resident elderly are not counted in this estimation.



**Figure 5** Family Size in Major Years

Source: *The Sixth Population Census Data-Shanghai*

### **Senior Demographics in Shanghai**

Shanghai is the first city entered aging society in China. As is described in the previous part, there is a lack of senior living facilities. The urgent difficulty is further explained by the city's senior demographics base, which rings the alarm bell to the whole society. The proportion of aged population in Shanghai is the highest among Chinese cities. There are 14.32 million citizens in Shanghai. While according to Shanghai Statistical Yearbook 2014, 3.88 million citizens are aged over 60 years old, accounting for 27% of the total citizen population. The international standard for population aging is 10% of population being over 60. Shanghai has a severe aged population structure. There are 715.5 thousand seniors aged over 80 (elder elderly). Elderly aged from 60 to 64 make up 34% of the total seniors. 235.1 thousand of elderly live by themselves, among which 24 thousand are childless. More than 3 million people are in their fifties and will enter their old age. It is projected that the net increase of the elderly is 2 million in the near 10 years<sup>5</sup>. The demographic structure indicates that large numbers of seniors become elder elderly and live alone at home. Shanghai encounters huge challenges in the boom and imminent demand for senior care industry.

<sup>5</sup> Shanghai Social Science Urban and Population Development Institution. "Senior Care Demand Peak is Coming, but the Number of Non-governmental Senior Institutions is decreasing". Jul. 25, 2014.

Based on the sixth population census data (2010) in Shanghai, it can be estimated that about 13.5% seniors have accepted higher education, including junior college, undergraduate and postgraduate. The proportions of elderly accepted education in high school, junior high school and primary school are 16%, 27% and 29% respectively. Large proportion of senior in Shanghai has received education and remained high willingness to be further educated. Shanghai government has established senior education regulations and granted about 100-200 million funds in total annually to ensure the operation of senior colleges. As of the end of 2013, there are 284 colleges for elderly and 9937 senior training centers<sup>6</sup> (See Table 1). About 22% of the elderly have enrolled in senior colleges. Shanghai is advanced in level of senior education in China.

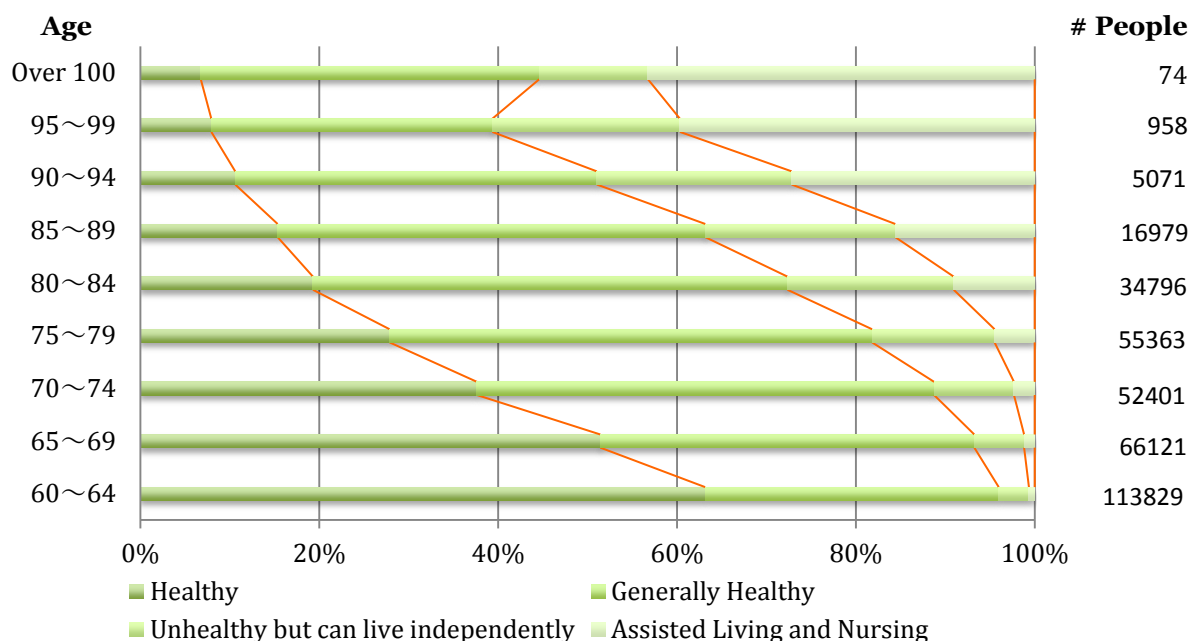
**Table 1** Senior Education Facilities

<b>Senior Education Facilities</b>	<b>College #</b>	<b>Senior Student # (1,000)</b>
Municipal Senior College	4	18.1
District, University Affiliated or Municipal Affiliated Senior College	68	59.2
Sub-district or town Senior College	212	188.1
Residential or Village Committee Senior Training Center	4,758	207.8
Distance Senior Education Learning Center	5,179	379.0

Source: Shanghai Research Center on Aging

A 10% population comprehensive survey was conducted along with the sixth population census in Shanghai. Health status was self-reported based on the health condition in the past month. Four levels were divided for the evaluation response, including “Healthy”, “Generally Healthy”, “Unhealthy but can live independently” and “Assisted Living and Nursing”. The respective percentages of the survey are around 43.5%, 43.5%, 9% and 4% (See Figure 6). Almost 90% of seniors regarded themselves as relatively healthy. Among each senior age group, larger proportions of respondents regard themselves as healthy at early stage of senior year (between 60 and 69 years old). Besides, seniors over 80 years old have negative perceptions on their health. These answers and trends are matched with common perceptions and real physical conditions that seniors have worse health conditions when getting older. The valuable information we can extract from this analysis is about the age lines that differentiate elderly’s perception on their health status. Those below 70 years old may prefer and indeed stick with living independently at home because the largest proportion of them evaluate themselves as being healthy in their age group. While based on age groups, a large proportion of seniors over 80 years old worry about their health status. Many of them will enter senior nursing homes if they don’t receive family care. The most possible group with large potential to consider senior living homes is those in their seventies.

<sup>6</sup> Shanghai Research Center on Aging. “2013 Shanghai Senior Population and Aging Control Statistics”.



**Figure 6** Senior Self-reported Health Status

Source: The Sixth Population Census Data-Shanghai

**Table 2** Urban Household Per Capita Disposable Income - by Income Levels

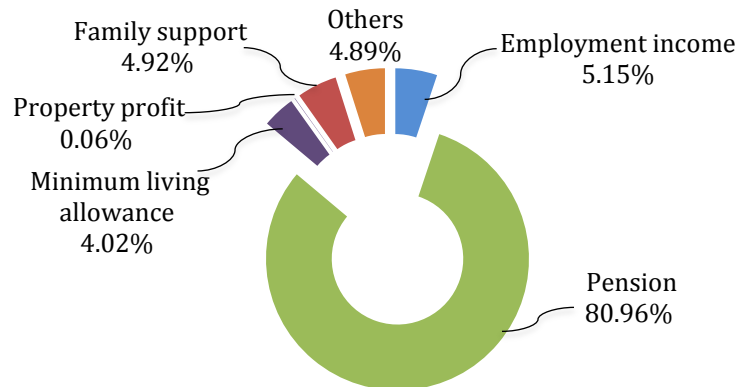
	Low	Medium-low	Medium	Medium-high	High
<b>Disposable Income (yuan)</b>	20,766	30,221	36,989	48,141	87,676
<b># Pensions and Retirement Pay</b>	6,261	11,548	13,494	12,811	9,802

Source: The Sixth Population Census Data-Shanghai

With a total of 345,600 seniors, the population sample survey shows that senior citizens' main source of income for living includes employment, pension, minimum living allowance, property income, family support and others. Respondents only choose the most important or highest income source. Pension makes up nearly 90% of seniors' income and property profit is almost 0 (See Figure 7). Elderly depending on employment income, minimum living allowance or family support compose around 4-5% of total respondents for each category. In 2013, household total average per capita disposable income is 43,851 and per capita pension amount is 10,598 yuan. Five categories are divided according to income levels through ranking a total of 1,000 samples and then equally group them into five 200-sample classes (See Table 2). We can find that the medium income households have the highest average per capita pensions and retirement income. The reason for this phenomenon is complex and needs more research. However, senior's income levels directly relate to the amount of expenses they are willing to pay for senior living homes, and the average willingness to



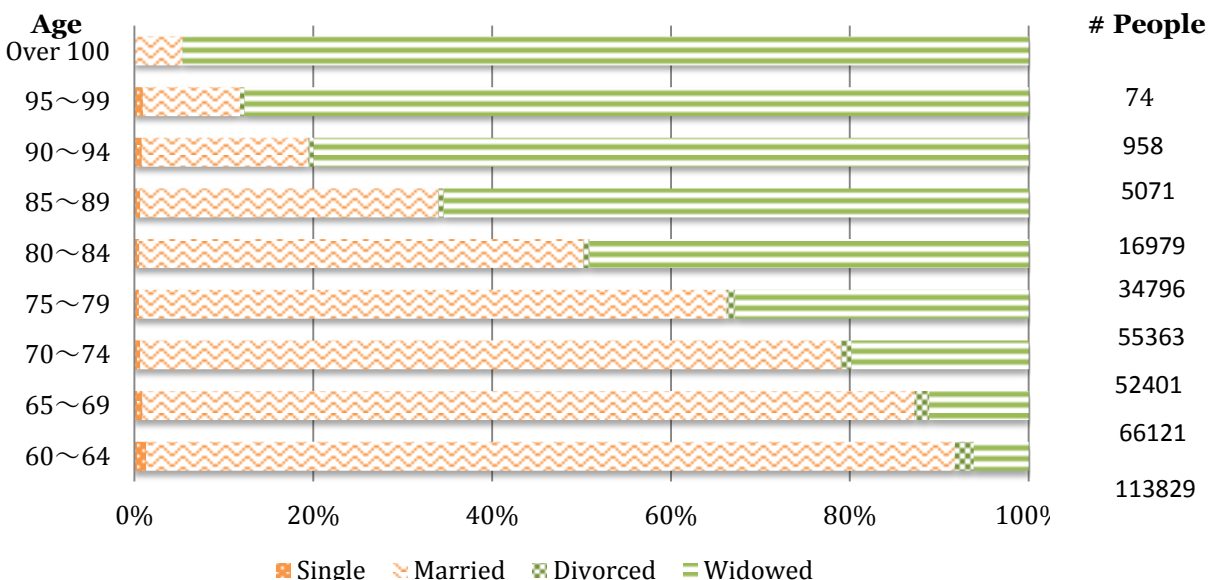
pay ranges from 1000 – 3000 in Shanghai<sup>7</sup>. The average monthly pension is over 2,000 yuan. This indicates that seniors have limited financial power and prefer or only choose the option to live on their own instead of get financial support from other family members. The government can take care of low-income group in senior warfare homes and the high-income seniors can cover their expenses themselves. Then the medium-income group has been left behind because the supply of non-government senior homes is far from actual demand and the quality is a problem.



**Figure 7** Senior Major Income Source

Source: The Sixth Population Census Data-Shanghai

For the marriage status, 76% seniors are married and 22% are widowed (See Figure 8). Single or divorced elderly only account for about 1% respectively. Current seniors are mostly either married or widowed. Based on the analysis in each age group, larger proportion of elderly loses their spouse as age increases. If observe carefully, we can find that the proportion of divorced elderly is higher in younger age groups.



**Figure 8** Senior Marriage Statuses

Source: The Sixth Population Census Data-Shanghai

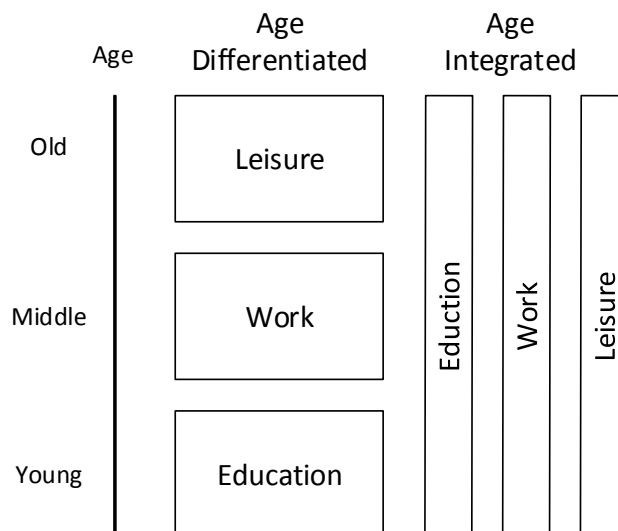
<sup>7</sup> Shanghai State-owned Capital Operation Research Institute. Discussion on Shanghai Urban Districts Senior Institution Current Conditions and Patterns. Mar. 4, 2014

## Literature Review

### *Age Integration or Segregation?*

When discussing the living patterns of the elderly, there are always debates on whether it is better for older adults to live independently or live with their adult children. In gerontology, this issue can be summarized to the choice of having age-segregated or age-integrated housing.

The word age-segregation refers to the social structure that older people are encountered with barriers in daily activity and use of facilities comparing with other age groups (Cowgill, 1978). Age-integration is an ideal social structure that brings people in different age together to take part in activities like education, work and leisure in flexible ways (Rehn, 1977; Best, 1980; Riley & Riley, 1994). It involves the overcome of barriers in age structure and the aggregation of people in different ages (Uhlenberg, 2000; Phillips, Ajrouch & Hillcoat-Nallétamby, 2010). These two concepts can be illustrated as **Figure 9** (Riley, Foner, & Riley, 1999). Focusing on the housing field, residential segregation is the spatially different distribution of people according to specific characteristics like race, class or age. The age segregation in residence relates to factors like personal economic status, healthcare need, social support satisfaction, service efficiency, city level population size, population growth, city age and so on (Kennedy & De Jong, 1977). Age-integrated types of housing include people of all ages, which means the elderly live, work, learn or play together with younger people and live a normalized life (Nirje, 1969).

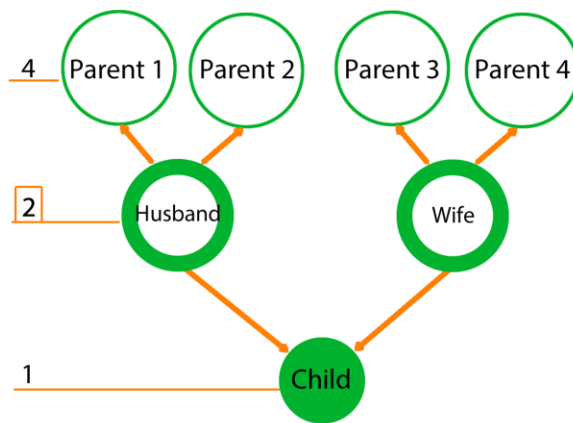


**Figure 9** Ideal Type of Social Structure

Source: Riley, Foner, & Riley (1999)

On the one hand, scholars in ideology side often support integration because the older need contact with and stimulation from the younger (Mumford, 1950). There are supports from several gerontology researches that have emphasized the significant family impacts on social age integration issues (Uhlenberg, 2000). The family realms are to some degrees the only institution stimulating age integration and mitigating isolation and other negative impacts on the older people in the society (Freedman, 1996;

Koropeckyj-Cox, 2002; Hagestad & Uhlenberg, 2006). The coresidence living arrangement of adult children and the aged parents are normal in China due to cultural and social influences. The majority of Chinese seniors spend two thirds of their old age years living with their families (Gu, Vlosky & Zeng, 2009). Home-based senior life is and will remain the most adopted way to the elderly. In almost all developed countries, home and community senior care is promoted and supported to solve the problem of aging. In addition, active elderly are more willing to live at their original homes and hope to “age in place”, which means remaining independent living in one’s original place, especially by continuing a certain degree of competence and control over the environment (Lawton, 1982).



**Figure 10** 4-2-1 Family Structure Illustration

Source: Created by Author

On the other hand, under the current situation in China, families’ roles in senior care are weak. The family structure has evolved into a smaller scale because of the one-child policy adopted in the 1970s. From the husband and wife’s stands, typical families are composed of four parents, two adults and one child. Such 4-2-1 family structure (See **Figure 10**) and traditional culture atmosphere result in a low quality for senior life (The Economist, 2012). For families adopting co-residence of multi-generational, they encounter more daily trifle conflicts regarding economic, educational and other issues than aged only households. Besides, the adult children are bearing heavy burdens on caring for their parents regardless of living together or not. The unstable job mobility, not enough income, growing divorce rates and many other factors all contributes for the failure of serving the elderly well (Gu, Dupre & Liu, 2007). The migration of younger labor forces to urban regions or overseas leads to the phenomenon of “empty nest”. According to the China Report of the Development on Aging Cause (2013), the proportion of “empty nesters” is approaching 50% of the senior population and the number has exceeded 100 million. These elderly parents’ adult children have greater geographical separation with them, which reduce the opportunity of multi-generation co-residence in a stable family status (Silverstein, Cong & Li, 2006). Even though the seniors live at home, there is study finding that most young network in elderly’s life is still their children (Uhlenberg & Gierveld, 2004), which infers that the age-integration environment is not strong. Due to problems arise in family senior care ability, the changing social structure, cultural atmosphere, an increasing number of the elderly are

willing to spend their later years with few accompany of the young generations and move to an age-segregated senior living home.

Besides, from the elderly service and program aspects, age-segregation is promoted and stimulated, which was proposed and proved by some scholars (Burgess, 1925; Coulson, 1968; Golant, 1972). It is found that senior homes have cheaper cost and safer living environment. Besides, there will be more social opportunities than normal homes the elderly live (Portacolone & Halpern, 2014). All the government senior institutions in China have large subsidies to provide affordable living for the elderly, which will save expenses for the seniors who live at home with the same living conditions. However, this may not be the case for private senior homes because the costs for operation are mostly from the owners and the elderly. For the safety aspect, the close-gated senior homes help guarantee the elimination of outsiders' crimes. Healthcare resources and electronic instant reporting facilities connected to central control system can also make the seniors easier to deal with emergencies. Living in a senior home doesn't often mean loneliness and isolation. Actually relaxed and active atmosphere can be created through different organized activities for different elderly getting along and interacting with each other. Seniors may decide to move to senior homes due to various social, economic and individual preferences.

The different theory bases will lead to different modes of senior living patterns in real projects. According to Sherman (1975), the choice of segregation or integration residence for the elderly depends on individual cases. Age-integrated seniors may have more young friends than their peers in age-segregated environment. However, both groups of seniors can be satisfied with their self-chosen life. Thus, it is still debatable on the advantages of one senior living pattern compared to another, and final conclusions depend on certain circumstances. Considering the family-care dilemma and current urgent demands for senior homes, my study mainly focuses on age-segregated senior living pattern that provides collective care in different types, expecting more powerful private sectors to take part in relieving the aging problem. Some age-integration elements can still be included in age-segregated living arrangements like introducing young volunteer programs.

### ***Built Environment***

From the planning aspect, built environment is a multidimensional concept including urban design, land use and transportation system (Handy, Boarnet, Ewing & Killingsworth, 2002). The built environment in the circumstance specific to senior homes includes housing conditions, neighborhood surrounding and social connection (Sweaney, Mimura & Meeks, 2004), which is discussed in this paper.

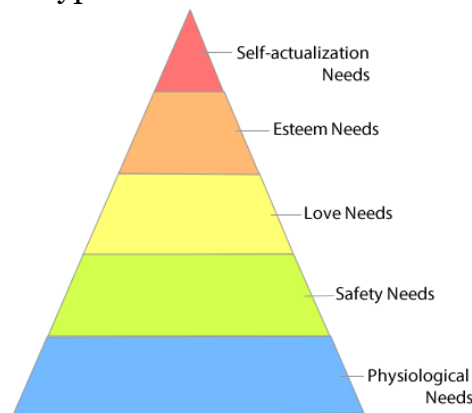
In senior living homes, the residents spend much time indoor, and thus the interior housing conditions, especially in "age-friendly" designs, are significant for the elderly. Age-friendly is a concept proposed by the World Health Organization in order to encourage the development of livable cities for the elderly (WHO, 2007). There are abundant studies on housing designs with the concept of Universal design, which means modifying or improving the normal designs to increase the adaptability and meet different people's needs (Mace, 1990; Selwyn Goldsmith, 2000; Nakagawa, 2006). In

considering the physical senior living environment, there are theories and applications in barrier free design to better cater the elderly's daily life in indoors and outdoors space (Bednar, 1977; Peloquin, 1994; Holmes-Siedle, 1996; Chen & Hu, 2013). Barrier-free design mainly focuses on accessibility, mobility, function and safety aspects of the physical environment (Cooper, Cohen & Hasselkus, 1991). It will be convenient for the senior's daily activities with these special designs. Specific interior barrier-free designs for elderly are frequently studied and practiced, including kitchen, furniture, bathroom and so forth (Zhang & Zhang, 2003; Zhang & Cheng, 2007; Barrier Free Environments Inc., 2010).

The age-friendly surroundings, including locations, are important elements in the living environment for the elderly. The basic requirements for qualified elder-friendly community involve aspects like physical accessibility, service proximity, security, affordability and inclusiveness (Alley, Liebig, Pynoos, Banerjee & Choi, 2007; Plouffe & Kalache, 2010). Such neighborhood and city designs are helpful and meaningful for building the "active aging" society, which means empowering and engaging the seniors on physical, economic and social activities in their daily life (Michael, Green & Farquhar, 2006). Scholars also discuss integrating both the physical and social environment in the process of building age-friendly communities (Lui, Everingham, Warburton, Cuthill & Bartlett, 2009). The broad built environment includes the atmosphere created through social programs. This research involves both parts to comprehensively discuss the general age-friendly living environment.

### **Senior Demands and Home Preferences**

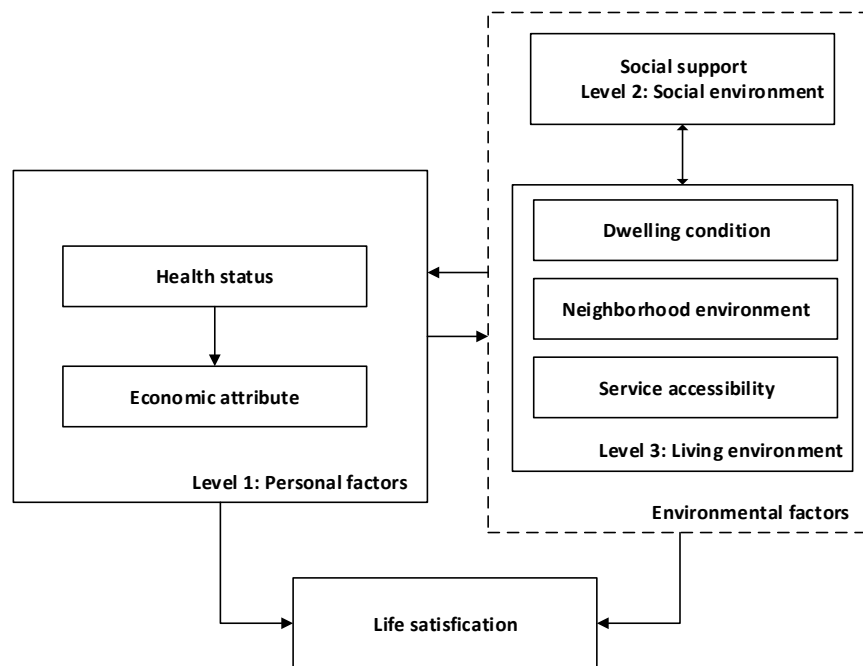
Generally, people's five basic demands include physiological, safety, love, esteem and self-actualization needs, which have ascending orders in rank (Maslow, 1943) (See **Figure 11**). The former three needs are fundamental and the latter two levels are advanced because the basic demands can be satisfied through external conditions while the superior demands are met by self-improvement. Tailoring from this theory, in order to better serve the elderly living in senior homes, the first step should be finding out what the senior need to live better old-age years. Accordingly, the development or improvement of senior living homes should follow these key demands of the elderly and allow various patterns for different types of seniors.



**Figure 11** Maslow's Hierarchy of Needs

Source: Created by Author

Elderly's well-being mainly includes: Psychological wellbeing, perceived quality of life, behavioral competence and objective environment (Lawton, 1983). The needs can be further categorized (See Figure 12) into personal and environmental factors including health status, economic attribution; living conditions, neighborhood environment, accessible services and social support level (Cumming, Dean, Newell & McCaffrey, 1960; Lawton, 1983; Yan, Gao & Lyon, 2014). The influential factors that will have negative impact on senior's demands turns out to be the unstable job mobility, not enough income, growing divorce rates and many other factors (Gu, Dupre & Liu, 2007).



**Figure 12** Satisfaction Model for Community Living Seniors

Source: Yan, Gao & Lyon (2014)

According to the special senior demands mentioned in the former paragraphs, the development and management modes should focus on the senior preferences. Currently, more private capitals are trying to learn from overseas experience in building senior living communities instead of the institutional ones. When developing such new senior home patterns, they should be designed and built differently comparing to the normal communities. Jiang (2011) and Yang (2013) observed four development modes and eight operation patterns in China: vocational senior living communities, suburb senior living communities, urban industrial land transferred senior living communities and mixed senior living communities. The demographic pressure of population structure change like aging largely influences the housing needs. Thus, developers should translate such kind of trends considering local market conditions and properly tailor the investment, development and management plans (Golland & Gillen, 2004). For instance, despite the traditional senior living institutions, many of the current modes of independent senior living communities in China are referring to the Continuing Care Retirement Communities (CCRC) in the U.S. Because of the immature market and traditional big family culture in China, it seems better to launch pilot

projects with conservative initial investments and incorporate enough cultural elements into the designs. In such independent living arrangement, developers provides housing, health care and various supportive services in a relatively large-in-scale community. The fee structures can be ranged from refundable entry fee plus monthly service fee for condominiums, rental housing or endowments (Pearce, 2007).

### ***Home Quality and Satisfaction Evaluation***

Some scholars have researched on methods to evaluate the quality of residential communities generally or in concepts like eco-communities and so on. The main methodologies applied in evaluating community qualities include find the influential factors of the life quality, measuring the relationships of variables and testing the hypothesis. For Sirgy, Rahtz, Cicic and Underwood (2000), they studied the community quality through evaluating the life quality of the residents, which can be further determined by factors like different services, satisfaction towards environment, change rate of natural landscape, race, cost of living, crime, ties with people, neighborhood and housing. The evaluation of the eco-communities is mainly dependent on the relationship of vital degree, carrying capacity, development potential, coordination degree, resilience and self-sufficiency indicators (Zhao, 2012). Ai (2005) evaluated the ecological communities in Shanghai based on eco-system theories through six basic indicators like population size, geographical region, management organizations, life service facilities, community culture and resident's community recognition. Researches on certain types of community evaluation are based on theories related to the topics. However, there is not enough emphasis on evaluating the senior communities.

According to the previous studies related to senior living homes, there are established systems of evaluation indicators studying senior satisfaction with living communities, which can be transferred into the community evaluation. Toseland & Rasch (1978) analyzed from large scale of senior data and concluded that community safety, individual dwelling unit quality, and recreational and health facilities are the most significant factors in seniors' satisfaction with communities. Evans, Kantrowitz & Eshelman (2001) further found that there is positive relationship between housing quality and the elderly's psychological well-being when living independently, with the controlled socio-demographic factors. However, the community features are more important than seniors' individual psychological or demographic characteristics in deciding the satisfaction on communities (Toseland & Rasch, 1978). That is to say, the living environment, rather than the elderly themselves, has significant influences on the sense of life satisfaction. While Kahana, Lovegreen , Kahana & Kahana (2003) further examined the influences and usefulness of the personal preferences, the environment characteristics and the Person-Environment fit on senior residential satisfaction. They argue that the evaluation of elderly's satisfaction should not only take person and physical environment into account, but also consider the person-environment relationships. Different from many of the previous quantitative researches, I adopt the qualitative and partial-quantitative method to provide detailed and informational evidences in this topic. My study builds on the satisfaction studies and further explores reasonable plans for senior's living arrangements and meet the majority of active seniors' demands in urban communities.

## Methodology and Data

### *Methodology*

In this study, the research method is comparative case studies analysis. My research units are senior living homes. Four cases in Shanghai, China are chosen to analyze the preferred and adaptable development and management patterns. Shanghai is one of the four Zhixiashi (Country-Direct-Govern Cities), which ranks high in the growth of the whole country's development. That means many excellent people from other provinces have been attracted to Shanghai. Consequently they form a more diversified demographic structure in this city, as can be inferred from the senior demographics from the background section. With such a research foundation, there is higher possibility to include senior citizens from different geographical and cultural backgrounds.

The methodology is based on three tiers of factors, designed in both senior interviews and surveys. They are structured as **Table 3**. The selection of factors is based on former studies about senior homes and senior life satisfaction modeling in China (Lawton, 1983; Yan, Gao & Lyon, 2014) since the logic behind of both researches is similar and appropriate to be applied in this paper.

**Table 3** Senior Living Community Study Factors

<b>Tier1</b>	<b>Tier 2</b>	<b>Tier 3</b>
<b>Scale and Structure</b>	Population Scale	Senior Population/Bed Number
	Building Scale	Building Numbers
		Gross Floor Area
<b>Physical Environment</b>	Housing Conditions	Age-friendly Design
		Furniture
		Home Appliances
	Community Conditions	HVAC (heating, ventilating and air conditioning)
		Healthcare Facility
		Commercial Service
		External Transportation
	Cultural and Exercise Facility	
	Open Space	
<b>Social Environment</b>	Family Relationship	Family Care
		Living Distance with Family Members
	Community Relationship	Neighborhood Relationship
		Senior Home Staff Relationship

*Source: Created by Author*



According to the designed research method, I have interviewed 80 seniors and asked the survey questions to collect data in the four senior homes. The interview list includes the No. 1 Social Welfare Institution (#1 EH), the Shanghai Xijiao Union Retirement Center (Xijiao URC), the StarCastle Middle Ring Community (StarCastle), and the Cherish-Yearn Membership Senior Community (Cherish-Yearn). In addition, questionnaires were distributed to the selected senior residents in Cherish-Yearn. 65 valid responses were received, among which 30 seniors also accepted short interviews (included in the 80 interviews). These senior homes are well known as representative senior living cases in many recent studies (Jiang, 2011; Wang & Hong, 2011; Chen & Hu, 2013; Yang, 2013), which are different in development and management modes.

### ***Data Collection and Process***

The data in this research mainly include community fact data and evaluations from the senior residents. Existing descriptive and statistical data for the four cases are collected from the official websites, field trip observations, and conversations with the practitioners in the management teams. Other actual information used in this thesis is collected from various approaches. Second-hand statistical and documentary data sources include Bureau of Statistics of Shanghai, Shanghai Planning and Design Institute, research institutions and others. Data in this category include statistical data on the senior living homes, planning criteria and approval policies, senior demographic data in Shanghai and in selected four cases, the basic community infrastructure and service conditions, special senior-oriented facilities and so on.

Detailed case-related information and quality evaluations are obtained from field trips, surveys and interviews. Seniors who are aged 60 or over and willing to take part in the research are surveyed with the help of certified physicians in the four selected senior living homes. There are 110 valid responses from the senior residents, with a 5% sampling of the total senior residents living in each home. The 5% proportion is a threshold percentage for a large sample number of the total population in statistics. The Finite Population Correction should be applied to calculate Standard Error when the total population is small because only active seniors are accessible rather than all the seniors living in the senior homes. The sampling process is not random due to the fact that seniors are selected only if they are qualified in physical and mental status, decided by the certified physicians. Due to such research limitations, statistic analysis is not conducted in this paper. The findings and analyses are mainly based on qualitative interviews and the quantitative questionnaire results.

The senior interview questions are asked in Chinese and the author circle the seniors' answers on the printed surveys in #1 EH, Xijiao URC and StarCastle senior homes, while survey hard copies are distributed in Cherish-Yearn (English version attached in **Appendix A**). The main purpose for this survey is to collect sample ratings of senior living communities by the users and figure out the most preferred and acceptable situations for the senior so that their life quality can be improved. There are three parts of questions including the basic demographic information, the community rating section and the senior home choice questions. The first part includes specifying the age, gender and education. The second part asks questions related to communities, which involve the rating for overall life quality and other specific aspects of life and the ideal living

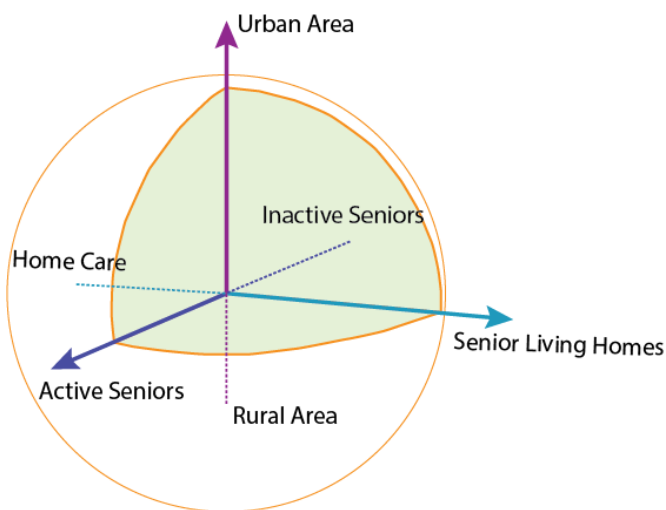
scenario for the elderly to spend their happy senior life. Satisfaction on the quality of the senior living home, including “Totally unsatisfied”, “Somewhat unsatisfied”, “Just-so-so”, “Generally satisfied”, “Very satisfied”. 6 aspects on living quality are provided for the senior interviewees to evaluate. The “Location” factor refers to the place the senior home situates and the surrounding environment. The “Living Environment” factor means the housing conditions and room facilities. The “Caring Services” are provided specially by the care workers. The “Social Connection” is the interaction with other seniors or staff. The “Family Relationships” factor show the satisfaction of care from family members. Then the seniors are asked to give a general overall satisfaction evaluation on the senior homes. In the third section, seniors are asked for two questions about their settlement in the senior homes. The first question is: What is the most crucial reason for the interviewees to move from their original homes? This question makes clear if the initial motivation of enrolling is positive or negative. The second question is: What is the decisive factor for them to select the senior home they live in now? This question can confirm the most significant reason for the seniors to choose certain senior homes.

The practitioners’ interviews (English version attached in **Appendix B**) are arranged with people from different fields of senior related industry, including the senior living community real estate developer from Qinheyuan Co., Ltd., and the senior home service managers. The questions focus on different aspects at interviewees. For instance, to the developer, I asked questions about the senior community physical pattern and personal viewpoints of macro development strategies. While for the senior care managers, concentration is put on the observations of the senior’s living quality and community physical conditions. However, the interviews are all about current senior living home quality and proper expectation on improvement or development mode.

After the first and second hand data are collected, the first step is to properly visualizing and describing the relevant factual data in the research results part with emphasis. In this study, I have talked or surveyed 110 seniors in total and their opinions are aggregated by case. The second step is to analyze the preferred living patterns in details through all the valid sample answers and the interviews as well. The third step is to compare different aspects of senior community evaluation data from the collected data and implicate possible solutions for current senior living issues.

## Findings and Comparative Analyses

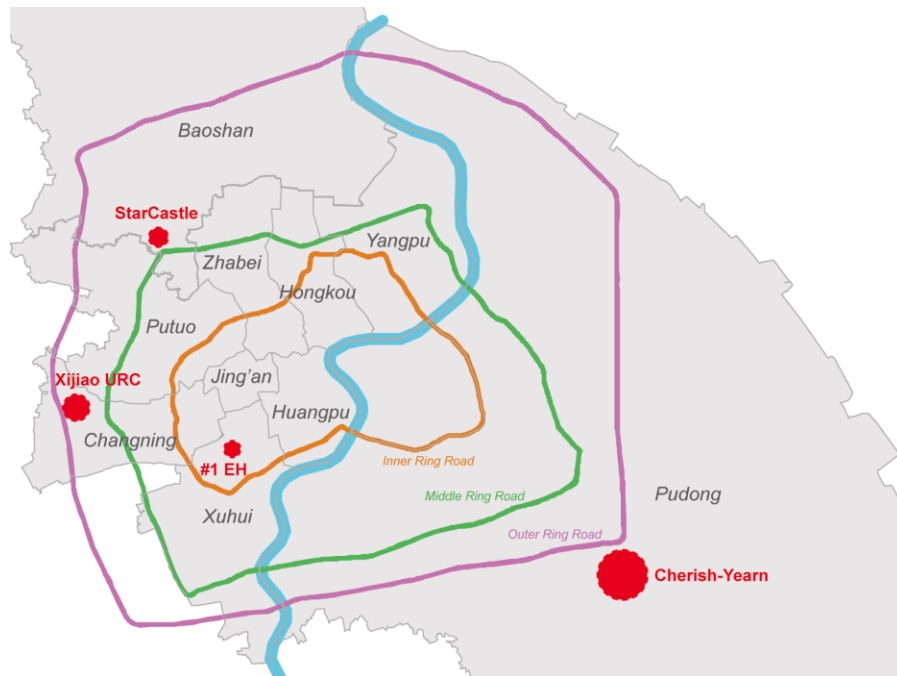
I had several field trips to four commonly deemed typical high-quality senior living homes of different features in Shanghai. Through research, observation, interviews and surveys, I launch my discussion on various senior living models from three main aspects (See Figure 13), which include location, senior living arrangement and senior overall status. The location of senior homes can be divided into urban or rural area. The senior living arrangement means that the elderly have options to live at home or in senior institutions. The senior overall status is divided into active or inactive, depicting the health and financial status. However, all these classes have continuous transitional spectrums. For instance, seniors may live in downtown, urban fringe or remote rural area in terms of location. Elderly's living arrangement may be a combination of home stay and senior institution if they sleep at home but often use community senior center services. For overall physical and economic status, it's easy to understand that seniors can be healthy or unhealthy to different degrees. In this paper, as I elaborated in previous sections, the focus has been put on active seniors living at senior homes in urban areas.



**Figure 13** 3-D Axis Research Focus Framework

Source: Created by Author

The detailed findings of the four cases I visited are described below. The four senior living homes are different in ownership, management system, built environment, services, surrounding resources and financial models. They are distributed in different regions in Shanghai (See Figure 14). Interviews and surveys with seniors living in these four senior living homes show the residents' satisfaction towards their life quality. I have conducted interviews with 80 seniors in total at the four senior homes to collect answers to the designed survey questions. However, due to time and seniors' reachability limit, I have put my quantitative research emphasis on the case with the largest elderly residents, which is the Cherish-Yearn Membership Senior Community. I have surveyed 65 seniors, among which I also interviewed 30 seniors (included in the 80 interviews). The results are classified by case.



**Figure 14** Four Selected Senior Living Homes Cases

Source: Created by Author

### ***Shanghai No. 1 Elderly Home Case***

The Shanghai No. 1 Elderly Home (#1 EH) is a state-run senior living home established in 1964. The #1 EH provides a collective environment with rehabilitation and nursing facilities for the elderly. The seniors must be over 80 years old and generally healthy enough to live independently when they enter the institution. After the elderly settle down in the senior living home, the institution takes full charge of caring for them. Currently, this senior living home is very popular, with no vacant beds and long queues of seniors waiting to enroll. There are equal numbers of beds for males and females, but more female seniors have applied to enter than male. One of the reasons for this phenomenon is that the life expectancy for males averages at 80.04 and females at 84.59 years old in Shanghai.

The senior living home is located in one of the downtown areas in Shanghai Xuhui District. It is close to rich health care resources, and Longhua Hospital, one of the best hospitals in Shanghai, is only half block away. There are mature matching commercial and financial services around such as supermarkets, banks and so on to satisfy the healthy seniors' daily needs. The Wanping Theater, large shopping malls and green space make senior life more colorful in that area. Elderly who obtain permission from the institution receive a name card to go out after notification. There are metro lines 4, 7 and 9 in one block distance. Several bus lines are in front of the institution, making both seniors and adult children travelling easy. The convenient and vivid surrounding environment is one of the factors contributing to the institution's popularity.

The Institution is a 5-story building (See Figure 15) nesting in a busy downtown residential community, with a gross area of 5,392 square meters (58,039 square feet). There are 190 beds in total, which signifies that 190 seniors live here. On the first floor, there are more than 10 beds in each room and professional senior care workers are in responsible of these elderly who are completely bed-ridden. On the second to fifth floors, there are about 20 rooms on each floor. The rooms looking to south are equipped with three beds and rooms facing north are for two people. The room conditions are good for seniors. There is one independent bathroom for each room. The furniture is relatively new. Each senior has private bedside cabinets and wardrobe. The air-conditioners, electrical fans and telephones are equipped in each room. The windows are designed to be large and enable enough sunlight coming into the rooms. The institution also has certain types of public spaces like reading room, chess room and common area for chatting. The hotel next to the senior institution supplies meal service and the seniors can order through the special healthy menu.



**Figure 15** The #1 EH Building

Source: Shanghai Social Welfare Center Official Website<sup>8</sup>

Since the government subsidizes for the institution, the expense for the seniors living in such a good-quality condition is relatively low. The rent and service fees range from 1500 to 2500 yuan every month. The cheapest cost standard includes 500 yuan for bed charge, 480 for meal services and 480 for senior care fees. This applies to those healthy elderly and bed-ridden elderly pay about 2500 yuan monthly. Comparing to other senior living homes run by non-government organizations, the cost in #1 EH is about 600 to

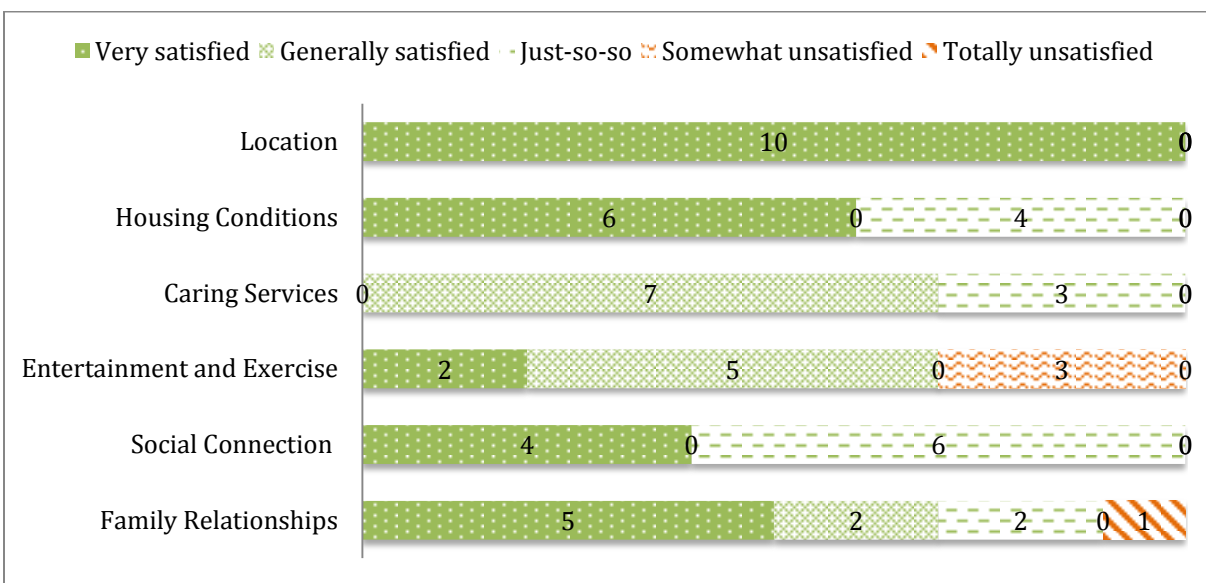
---

<sup>8</sup> Shanghai Social Welfare Center: [http://flzx.shmzj.gov.cn/index.aspx?cat\\_code=xsjg&article\\_id=1503#](http://flzx.shmzj.gov.cn/index.aspx?cat_code=xsjg&article_id=1503#)  
Accessed on Apr. 6, 2015

1000 yuan less, which is another reason why so many adult children consider sending their elder parents in.

### Senior Interview Results

According to interviews (face-to-face survey) with 10 seniors (5% of the total senior residents), I'm able to have some qualitative findings on seniors' life quality satisfaction evaluation. 5 of the interviewees are female and another 5 are male, which fits the 50/50 gender proportion in this senior living home. Because of the senior home policy, all the seniors are elder seniors over 80 years old who have been assessed to be physically and mentally healthy by certified physicians. The age of interviewees range from 81 to 88, with a medium age of 84.5 years old. 7 of the seniors pay their monthly expenses by their retirement pension (1800 – 6000 yuan/month), while 3 of them pay by pension (900 – 1500 yuan/month) and family support. 4 of the 10 interviewees are retired cadres. Retired cadre system is a special retirement mechanism rewarding leading professionals who started working for the country's liberation before 1949 establishment of People's Republic of China. 8 of the elderly have been educated, among which 2 seniors have earned degrees higher than Bachelor.



**Figure 16** #1 EH Survey Result

Source: Created by Author

The elderly's attitude towards life satisfaction in the senior living institution is the main part of my questions. As is described in the methodology section, the interviewed seniors evaluate different living aspects with the options of "Totally unsatisfied", "Somewhat unsatisfied", "Just-so-so", "Generally satisfied", "Very satisfied". In the survey result (See Figure 16), all the interviewees are "Very satisfied" with the location of the institution. The senior institution situates in a busy area, and the seniors have access to almost everything. It's also close to a busy road, but the rooms are facing to the residential communities. Thus it's still quiet to live inside the building. Although there are no health care facilities for healthy seniors in the senior institution, the interviewed elderly said that they could get access to nearby hospital conveniently.

There are 6 of the interviewees evaluated “Very satisfied” in the living environment and conditions, among which 3 seniors previously have visited other senior homes and expressed comparison opinions. Other 4 seniors show neutral views (“Just-so-so”) in this question.

Regarding to the services provided by senior home staff, 7 of the interviewees feel “Generally satisfied” and 3 seniors think that the service are “Just-so-so”. This is mainly because the seniors interviewed are mostly healthy and don’t need much special care. In addition, the staff resources in the public senior institution are limited, and one senior-care staff needs to look after a number of seniors.

When asked about the entertainment and exercise facilities, 2 of the interviewees feel “Very Satisfied” since they enjoy relaxing games like mahjong, a traditional Chinese table game for four, and the surrounding parks or theater. Another 5 elderly evaluate this aspect as “Generally satisfied” and the rest of the 3 seniors are “Somewhat unsatisfied” because the limited resources provided by the senior home.

The following question is about the social connection with the other seniors or staff in the home. 4 interviewees are “Very satisfied” with their networks, among which the 2 elderly who love playing mahjong maintain great relationship with others. The other 6 elderly’s satisfaction is “Just-so-so”.

About the relationship with adult children, 5 of the interviewees are “Very satisfied” since their children come at least once every week to accompany them. 2 seniors are “Generally satisfied” and have relatively good connection with their children. Another 2 seniors feel “Just-so-so” with the children and 1 interviewee is “Somewhat unsatisfied”.

In the #1 EH’s case, most interviewees move to this senior institution because they need better and more professional daily care. The most frequently chosen factor (only select 1 out of 9 options) to decide to enroll in this senior home is the location. 6 elderly regard the distance from or accessibility to children’s homes as the most important reason for them to live here. The second highest option is the health care resources around the senior home and 3 of them choose this item. 1 senior thinks the suitable price is the most crucial reason. For the overall evaluation for life satisfaction in this senior institution, 2 seniors’ answer is “Very satisfied”. 5 seniors respond that they are “Generally satisfied”. 2 of seniors feel life quality is “Just-so-so”. Another 1 interviewee is “Somewhat unsatisfied” with the life because of his lack of interaction with other seniors and the family.

### ***Shanghai Xijiao Union Retirement Center Case***

The Xijiao Union Retirement Center (Xijiao URC) is a privately owned senior living institution launched in 2013. Shanghai Changning District government provided the land and built the senior home, and then the private senior care company operated the institution. Prior to this new retirement center, the owner has already established 5 other senior care institutions and 1 senior nursing hospital for senior rehabilitation and hospice care. The Xijiao URC is an institutional senior care home providing senior living

and nursing services. Male seniors over 60 and female seniors over 55 years old can move in after physical examination confirming that they don't have transmittable diseases. The institution is built to be one of the largest senior living homes with the best facilities and services in city center.

This retirement center is located in Changning District, one of the districts in central Shanghai. This institution is in a residential area with some commercial services and has corporation with the Changning District Center Hospital for providing health care services to the seniors living in there. The transportation is within a certain walkable distance for healthy seniors. But since the senior living home provides nearly everything fundamental for daily life, there are not much demands to go out.



**Figure 17** The Xijiao URC Buildings

Source: Xijiao URC Official Website<sup>9</sup>

The institution covers a total area of 14,987 square meters (161,318 square feet) and a gross floor area of 33,405 square meters (359,568 square feet). The number of beds is 825 and more than 500 seniors live here. The occupancy rate is about 60.6%. This senior care home is composed of one 7-story building and two 5-story buildings. The 3-story wing building links all 3 buildings, presenting an “E” shape in general landscape overlook (See Figure 17). There are two small gardens between the main buildings and the whole area is gated and enclosed by walls. The 3 main buildings are all used as senior living rooms, while the wing building is composed of various rooms for senior services. Almost all of the rooms face to the south, which enable sufficient sun light for indoor space. There are different room plans including single or double-beds rooms for independent living, 4 or 6-beds rooms for nursing care and various suites for high-end senior care experiences. There is an independent bathroom equipped with age-friendly sanitary facilities for each room. The desks, wardrobes and independent living seniors' beds are mahogany furniture. Each room has a 46-inch television and an air-conditioner. Seniors have room keys.

<sup>9</sup> Xijiao URC Website: <http://shxjxh.com/yixiano2.html> Accessed on Mar. 31, 2015



The institution has devoted a lot into creating a warm and vibrant social environment for the seniors. There are abundant public indoor spaces such as a dining hall, a theater, a library, a computer room, a chess room, a piano room, a gym, a massage room, a Ping-Pong room, a golf space, a billiard room, a grocery store and so on. The institution organizes activities in holidays and on daily basis as well. Interesting group activities include listening to music, singing, watching movies and so on. For health care, there is also a rehabilitation room, a small clinic for dispensing medicine weekly and an infusion room.

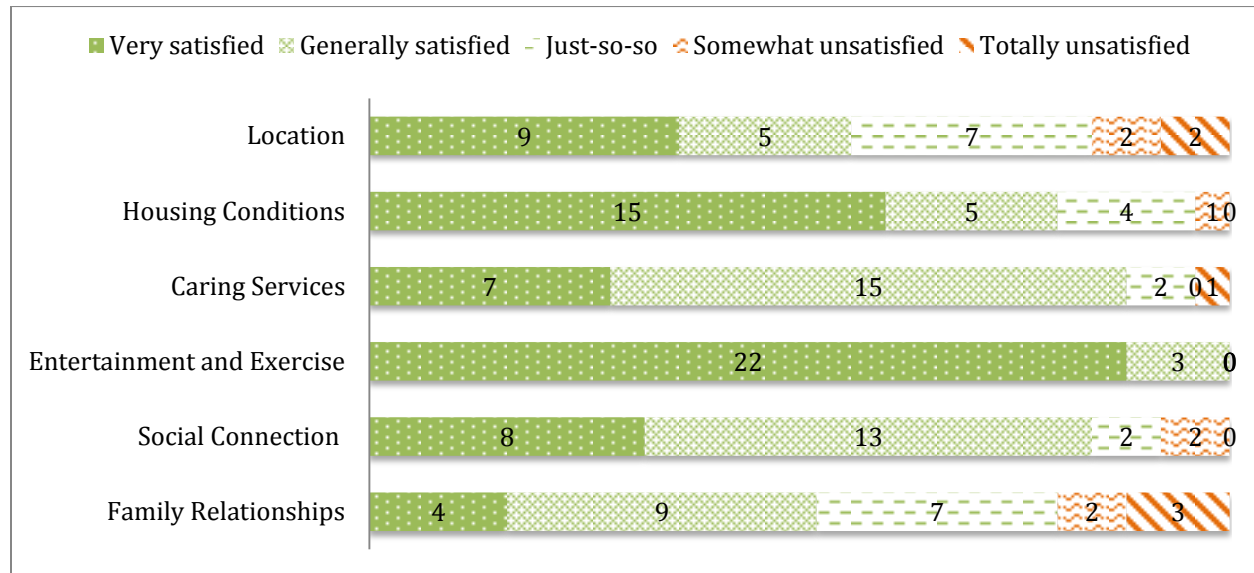
The cost for the active seniors living in this senior institution is relatively high. The charge for each bed is 3,000 for double-bed room and 5,000 yuan for single-bed room. Monthly meal cost is 700 yuan and the cheapest care fee is 900 yuan. There are also better senior care services pricing at 1100 and 1500 yuan according to different levels of services. Because of the high cost, those seniors who choose to live here mostly have high retirement income and sufficient family support. Most of the senior residents had good education and great occupations like teacher, doctor or government leadership.

### Senior Interview Results

Through the interviews (face-to-face surveys) with the 25 seniors in Xijiao URC (5% of the total senior residents), I talked to 17 female and 8 male active seniors aged from 77 to 88 years old. The medium age of my interviewees is 83 years old and 20 out of the 25 elderly fall in the 80-84 age group. Among the senior interviewees, 10 of them pay the monthly expenses independently (total income ranges from 5,000 - over 10,000 yuan/month), in which 8 elderly use the pension only and 2 seniors pay through both the pension and/or property rent income. The other 15 seniors totally or partially depend on their family supports. It should be noted that 3 of these 15 seniors have high pension income over 5,000 yuan and their children still pay for their expenses. In terms of education, 21 elderly have attended at least primary schools and 8 of them have education higher than Bachelor's degree.

The interviewees' life satisfaction living in this senior home is expressed through the survey (**See Figure 18**). When asked about the location of the retirement center, 9 of the interviewed seniors are "Very satisfied" because the senior home is relatively close to their original homes or children's homes and it's in the City Center area. There are 2 seniors feeling "Totally unsatisfied" because they can't get access to public transportation in 10 minutes' walking distance. 15 seniors are "Very Satisfied" and 5 are "Generally Satisfied" with the living environment in the senior home since the physical conditions are clean and with good quality. Rooms are spacious and light. Only 1 senior shows negative evaluation on the physical environment. The caring services in this retirement center generally meet the seniors' demands. 22 from all the interviewees are positive about the senior care services. The seniors are all satisfied with the various types of Entertainment and Exercise in this senior living home, among which 22 interviewees give "Very Satisfied" and the rest 3 seniors also positively evaluate "Generally Satisfied" on this question. Most elderly also have good relationships with others in the senior institution. Family ties are comparatively not as tight as the social networks for the interviewed seniors, but the relationships are not too tense. 13 seniors

are positive and 7 show neutral feelings. The 5 seniors who are not satisfied mainly lack communication with their family members.



**Figure 18** Xijiao URC Survey Result

Source: Created by Author

In this Xijiao URC case, a large proportion of the interviewed seniors move into the senior home because they don't want to make their adult children too tired for taking care of them. Others need special care services in the senior institution. There is one senior whose enrollment is decided by his children. The reasons for many interviewees to choose this senior home are that the living environment is great and there are positive recommendations from seniors who have already enrolled. The overall life satisfaction is relatively high. 13 seniors feel "Very Satisfied", 6 seniors are "Generally Satisfied", 5 seniors evaluate "Just-so-so" and 1 senior is "Somewhat unsatisfied".

### **StarCastle Middle Ring Community Case**

The StarCastle Middle Ring Community (StarCastle) is a joint-invested pilot project of Continuing Care Retirement Community (CCRC) established in 2013. The Chinese investor is the Shanghai Fosun Property and its US partner is the Fortress Investment Group, which has a high senior industry market share in the States. This senior apartment building is an exploration for new models of senior living in China. The aims of the investors are not only providing a place for seniors to live, but also creating an enjoyable environment for the elderly to live happily and with comfort. Male seniors over 60 and females over 55 years old can register and check in after a passed examination indicating that the senior is healthy to live independently.

The apartment building is situated in Baoshan District, which is to the north of central Shanghai districts. The public transportation system around is not convenient for seniors and their children. This disadvantage is partially made up by the shuttle buses connecting the community and the subway stations. For the seniors, the company also organizes trips to different commercial centers or downtown area spots twice every week.

The Dachang Hospital locates near the senior living apartment building. There are not much additional commercial or financial services in the surrounding area. One grocery store in the community provides daily supplies to the elderly. Other basic demands can be satisfied in the senior building.



**Figure 19** The StarCastle Building

*Source: Taken by Author on Jan. 5, 2015*

The senior living apartment building is a 14-story building (**See Figure 19**) with more than 200 units. It has a gross area of 18,000 square meters (193,750 square feet). The building is within a close-gated luxury villa community. There are 150 independent living units with various room types such as studio, one bedroom or two bedrooms. These rooms are arranged from the 5<sup>th</sup> floor to the 13<sup>th</sup> floor. Another 50 units are equipped with either one bed or two beds in a room for the elderly need nursing services. These rooms are separately located on the 3<sup>rd</sup> floor and 4<sup>th</sup> floor. Currently, less than 200 elderly have moved in to the community. But there are still less than one third of the units left vacant. The occupancy rate is about 66%. The rooms are well furnished in warm home style with large windows and equipped with advanced facilities. There is a furnished open kitchen, a refrigerator, a dining table, a wardrobe, a set of sofa, a television, central air-conditioner, a washing machine with dryer machine and independent bathroom. Seniors have room keys. All the designs are barrier-free for the seniors and the environment is like at home.

One of the most special characteristics of this senior apartment homes is that it emphasizes much on the mental health and social network for the seniors. There are 3,600 square meters (38,750 square feet) public spaces including a gym, a computer

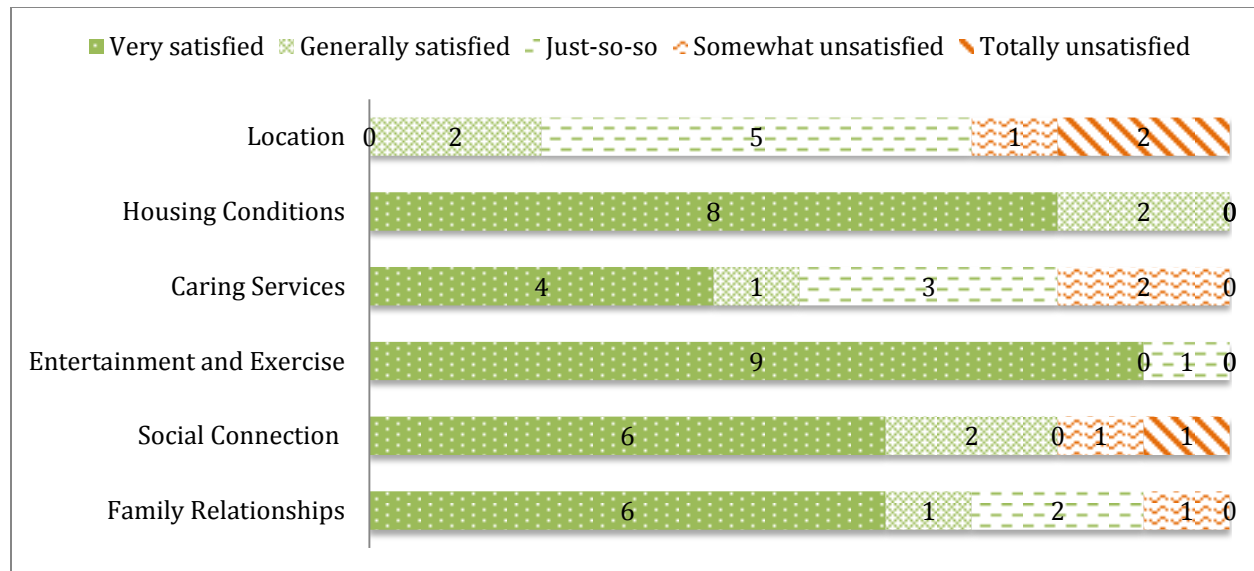
room, a library, an art room, a cheese room, a café, dance room and so on. The company forms a lot of interest groups, provides courses and organizes activities. Seniors can dance, sing, do yoga, play the piano, learn foreign languages and so forth. Some volunteers from Shanghai University come to interact with the elderly each week. There is also a dining center in the 2<sup>nd</sup> floor providing meals for the residents. For physical health care aspect, the community has a clinic for common illness and it also has shuttle bus to send the seniors to various triple A hospitals around city twice a week. The StarCastle Company supplies all the operational services instead of outsourcing in order to avoid management problems.

The cost of the elderly living in this senior apartment building is high and all expenses are included in the monthly rent. There is an upfront payment of 50,000 yuan as enrollment fee (previously 40,000 or 45,000 yuan depending on room plan). The rent for different types of units varies ranging from 7,100 to 30,000 yuan every month. Nursing cost is divided into a basic fee for room charge like the bed charge fee in senior institutions, and different levels of caring fees as 2,000 yuan, 4,000 yuan or 6,000 yuan. Generally, this type of senior homes is provided for high-end old age years.

### Senior Interview Results

The senior interviews (face-to-face survey) are conducted in StarCastle senior apartment building. I talked to 10 active elderly (5% of the total senior residents) aged from 70 to 85 years old. The medium age of my interviewees is 79 years old. I have met with more interviewees who are in their seventies in this senior living home. There are 6 females and 4 males. 5 of the seniors pay the monthly cost by themselves (monthly income over 10,000 yuan). This includes the situation that an interviewee lives together with his or her spouse in one unit, and the couple pays together. Another 5 seniors' expenses are totally or partially paid by their adult children. It should be noted that among these 5 elderly, 2 of them have retirement pensions higher than 5,000 yuan. All the interviewees have been educated and 7 of them have earned at least Bachelor's degree.

The interviewed seniors are mostly satisfied with their life in StarCastle and detailed results are analyzed (**See Figure 20**). One factor that people don't really like is the location. None of the seniors give the best comment. Half of the interviewees have neutral feelings and 3 seniors are negative about the location of the community. This is a common evaluation for senior homes in suburban areas. However, the satisfied aspects of this senior living community are also evident. Nearly all the elderly are "Very Satisfied" with the living environment and entertainment and exercise facilities in this senior home. Those who don't have the highest satisfaction still give positive or neutral comments. The caring services are welcomed by 5 of the interviewees. The other 5 seniors who haven't give positive answer mainly because they are healthy and haven't experienced many services yet, while they need to pay for the fees. The seniors are generally satisfied with the social environment. More than half of the interviewees have great relationships with their neighbors and senior home staff, as well as their family members. A small portion of the seniors shows negative satisfactions in social connection because they lack a proper way to reach out to other seniors. More varieties of senior programs can be introduced as a possible solution to such dissatisfaction.



**Figure 20** StarCastle Survey Result

Source: Created by Author

In the StarCastle case, the top reason (6 seniors selected) for the elderly to move from original home is that they want to enjoy their old years with fun. Most of them have apartments in Shanghai. 3 other seniors want to release their adult children’s caring burden. Another elderly moves from another city to live close to her daughter. Most of the seniors choose this senior living apartment because of the good living environment and conditions. A portion of the seniors chooses StarCastle because of the interaction with the staff. For the comprehensive satisfaction evaluation, 5 of the interviewees are “Very satisfied” and 4 seniors are “Generally satisfied”. Only 1 senior feels “Somewhat unsatisfied” because the high price.

***Cherish-Yearn Membership Senior Community Case***

The Cherish-Yearn Membership Senior Community (Cherish-Yearn) is a privately built and owned community that started to recruit seniors in 2008. This senior community model combines an apartment style environment and institutional senior care. The company provides gated independent living environment for the elderly, which is also accessible to the surrounding neighborhoods. Cherish-Yearn is one of the innovative senior care models operating through a senior membership mechanism. Active females over 55 and males over 60 years old can apply to live in the community.

This community is located in a suburban area in Pudong district, which is southeast to the central Shanghai region. The public transportation system around the senior living community is not convenient. There is only one bus connecting the seniors to a main subway station. A shuttle bus is in service to carry the elderly to the hospital. It also has schedules every day to send and pick elderly from the subway station and supermarkets. The surrounding commercial services can provide convenience to elderly’s daily life. There are restaurants, hair salons, grocery stores, fresh food markets and so on.



**Figure 21** The Cherish-Yearn Community

*Source: Taken by Author on Dec. 27, 2014*

This senior living community (**See Figure 21**) covers a land area of 83,333 square meters (896,989 square feet) and the gross building area is 100,000 square meters (1,076,391 square feet). There are 15 buildings in the community, among which 12 are multi-story residential buildings with elevators. Among the other 3 buildings, one is Cherish-Yearn hospital, another smaller structure is the dining hall supplying three meals every day, and the third is an office building for all the employees. There are a total of 838 residential units provided for 1,600 seniors. More than 1,300 seniors have moved in the community as of the end of 2014 and the occupancy rate is around 81.25%.

The rooms are classified into three types, small suites, medium suites and large suites. These are all normal apartment units fully furnished like at home, featuring a television, Wi-Fi facility, a telephone, an air-conditioner, a refrigerator, a washing machine, a double bed or two twin beds. Seniors keep their home keys themselves, which is a special electronic name card integrated with an emergency call system. All the room and the whole community are specially designed for the elderly, being barrier-free. There is a corridor linking all the buildings together so that the seniors can go through the community in hard weather.

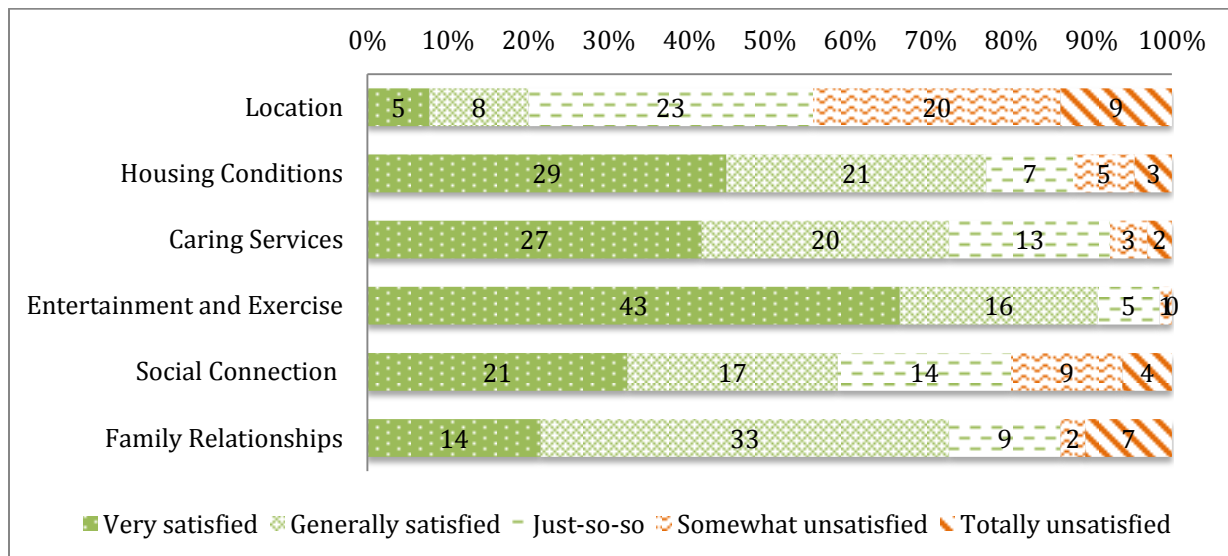
One of the specialties of Cherish-Yearn is that each building has its own living theme. For instance, there is a building for traditional handwriting, and the calligraphy works from different seniors hang on the wall of the whole building. In addition, on the first floor of this building, there is an activity room for the elderly to practice calligraphy and special courses will be delivered here sometimes. Other themes include traveling, dancing, reading and so on. There are abundant senior activities provided in certain indoor or outdoor public spaces. The list includes drawing, English salon, music appreciation, playing instruments, chorus, different types of dancing, various healthy sports suitable for seniors, knitting, photography, watching films, computer skills, flower arrangement, craft making and so forth. For health care resources, the Cherish-

Yearn hospital is a nursing building with different departments. The community is also connected to a triple A hospital, Shuguang Hospital.

The cost part of this senior living community is special since it applies a membership mechanism. The expenses are high. Seniors can choose from two transferrable types of payment, which is buying the A membership card or B card. The A card is inheritable and transferrable, which has a membership fee of 1,180,000 yuan upfront payment and an annual fee. This fee depends on the size of the unit ranking from 29,800 (2,483 /month) to 39,800 (3317 /month) to 73,800 (6,150 /month) yuan. The B card is a lifelong card that can't be inherited or transferred. The annual fee is all 45,000 (3750 /month) yuan for different types of apartments, but the upfront membership fee depends on the unit size ranking from 450,000 to 600,000 to 880,000 yuan. The annual payment includes all most all the services in the community except the meal service in the dining hall and expenses in the clubhouse.

Survey and Senior Interview Results

30 responses of the survey in Cherish-Yearn are conducted through face-to-face interviews and 50 questionnaires (35 valid) are distributed to active senior residents in the community. The total number of valid responses is 65 (about 5% sampling of the total senior residents). 40 senior respondents are females and 25 are males. The seniors' ages range from 62 to 96, with a medium age of 80.5 years old. 48 of the respondents pay their living expenses by themselves (Monthly income over \$3,000). This includes the situation that the respondent lives together with his or her spouse in the same apartment, and the couple pays together. The rest respondents totally or partially depend on family supports. 56 seniors have accepted education and 39 of them have received higher education.



**Figure 22** Cherish-Yearn Survey Result

Source: Created by Author

From the responses (See Figure 22) on the location factor, only about 7.7% of the surveyed elderly are very satisfied and 66.2% of the respondents are neutral or

somewhat negative. This is mainly because the senior living community situates in the suburb and the public transportation is not convenient. Although there are shuttle buses, the seniors still think that they often need to take a taxi to travel to the subway station 20 minutes away.

In terms of the living environment, 76.9% seniors are positive about this community. The apartment-style atmosphere makes them feel like at home. The rooms are well decorated and furnished. But there are a few seniors unsatisfied about the community's western-style design and the lack of Chinese culture elements.

For caring services, over 41.5% of the respondents are satisfied with what the community provides. Positive reviews come from the efficiency and warmth of the caring workers. Each building has several staff working as "housekeepers" to take care of the residents, which impresses the residents.

The entertainment and exercise factor wins 66.2% seniors' "Very satisfied" evaluation. Almost none of the responses are negative about this factor in Cherish-Yearn. The various senior activities and facilities meet the elderly's social and esteem needs.

32.3% of the seniors in the survey have satisfied social connections through both senior activities and caring services with other seniors or the staff. Some of those who don't feel positive in this factor are not very social and rarely take part in the senior programs.

About 21.5% of the surveyed seniors are "Very satisfied" with their relationships with family members and 50.8% elderly are "Generally satisfied". Many seniors' adult children are not in the city, so the seniors are used to living independently. Some of the elderly who feel unsatisfied about this factor expects more care and visits by their children.

In the Cherish-Yearn case, about half of the surveyed seniors move because they want to find a place to enjoy their senior years with fun. 30.8% elderly need better daily care in a professional senior home. 13.8% of the seniors hope to relieve their children's caring burden. The top choice for the seniors to decide to move into Cherish-Yearn is that they want to enjoy the warm and active living atmosphere in this community. The second frequently selected response is the guaranteed senior-care services and emergency reaction. Some respondents think the high-end physical environment and housing conditions are the determinant to enroll. The overall self-reported life quality is relatively high. 36.9% seniors are "Very satisfied" with their time living in the community and 32.3% of the seniors feel "Generally satisfied". Most of the elderly enjoy their life in the community.

### ***Comparative Analysis***

From the field trip investigations and survey results, we have a comprehensive view on the four relatively typical senior living home models and the senior residents' satisfaction evaluations on the life quality for each senior home respectively. We can find that the seniors are all elder elderly and all the interviewed elderly spend pensions on their living expenses in the senior home. Most interviewees have education



background. People pay much attention to health care conditions, living environment quality, senior activity and social atmosphere, distance to adult children, and the location factors when choosing a senior living home.

### Basic Conditions Comparison

In terms of the basic current conditions of the four senior homes, we can find that some private developers have started to try senior care home models that are different from traditional ones (See Table 4). The four cases are all in different ownership type with the interaction and combination of public and private stakeholders. The #1 EH and Xijiao URC are both traditional bed-based senior institutions, while StarCastle and Cherish-Yearn are innovative apartment-based senior living homes. It is obvious that the public-related senior homes follow the common-style mechanism and the private-owned ones take creative attempts. The senior homes in or close to City Center are smaller and more compact in scale than those locate in suburban area. However, the government-own senior home #1 EH receives large amount of allowance from municipal government and thus collects much lower fees than the other private senior homes.

**Table 4** Case Basic Information Comparisons

	#1 EH	Xijiao URC	StarCastle	Cherish-Yearn
<b>Ownership</b>	Public	Public  Private-operation	Private  Joint venture	Private
<b>Senior Home Type</b>	Senior Institution	Senior Institution	Senior Apartment Building	Senior Community
<b>Location</b>	City Center	City Center fringe	City Center fringe	Suburban
<b>Gross Area (square feet)</b>	58,039	359,568	193,750	1,076,391
<b>Capacity (people)</b>	190	825	300-	1,600+
<b>Occupancy (%)</b>	100	61	66	81
<b>Enroll Age (years old)</b>	Over 80	Female 55   Male 60	Female 55   Male 60	Female 55   Male 60
<b>Monthly Cost (yuan)</b>	1,500-2,500	At least 4,600	7,100-30,000	2,483-6,150
<b>Upfront Payment (yuan)</b>	0	0	50,000	450,000-1,180,000

Source: Created by Author

However, the current situation is that the government doesn't provide much subsidy for the private senior homes, and most of them can hardly gain break even (Li, 2014). Cherish-Yearn started to benefit from 2012, 6 years after the project started in 2006<sup>10</sup>. Xijiao URC and StarCastle are relatively new and haven't reached break-even point. Private high-end senior homes often provide great physical environment and various interesting programs to attract open-minded active seniors. The enrollment limitation of public senior living homes is strict in terms of seniors' age and health status, but the

<sup>10</sup> Interview with the Cherish-Yearn CEO.

private senior institution just set the rule that “seniors” without infectious diseases and mental problems can enroll. The senior living communities may add the requirement that seniors should be able to live independently. We can find a “cluster” effect in the four cases. Active seniors with better economic status and higher education are more willing to enroll in senior living communities rather than institutions. Many of the elder residents are professors or teachers, government leaders, doctors or veterans. They are open-minded and likely to spend much money on their senior years to guarantee their life quality. Overall, the four cases are typical with distinct features in different aspects.

Comparing about the occupancy rates, the phenomenon of extremely popular city-center versus empty suburban senior homes can be found in **Table 4**. There is a “three-level” division in my selected cases. The success of the 100% occupancy #1 EH with a long waiting list is mainly due to the advantages of great location and low price. The senior satisfaction survey result proves that the elderly prefers the convenient transportation, health care resource and daily-life services in the surrounding area. However, only a small proportion of active seniors who can independently walk around are eligible to go out freely. Thus only these elderly can enjoy the benefit of the great surrounding resources. Most of the elder seniors have to stay in the institutional home with limited social life and privacy.

Cherish-Year’s 81% occupancy reaches a fairly successful level. This is a representative senior living community built in suburban areas in a large development scale. The main reasons for its success include the emphasis on various kinds of senior social activities, the home-like physical environment and the guaranteed emergent healthcare resource. The expenses vary from a relatively low (2,483 yuan) to high (6,150 yuan) monthly payment according to the seniors’ choices except for a large amount of upfront membership fee. This financial model works for the seniors who have enough savings or economic supports. The lower side of the rent and service package pricing lines with the average monthly pension for the seniors in Shanghai. However, the largest shortage for Cherish-Year is the location, which directly leads to the inconvenience of public transportation. From the Cherish-Year case, we can find that the reasonable positioning and operational strategies help in making up for the location shortage to some degrees.

For the Xijiao URC and StarCastle cases, both are around 60% occupancy, which can be regarded as not successful in the market. From my research, the pricing and location are the two main factors impacting the occupancy rate in the private senior living homes. Both cases are positioning to be high-end among senior institutions or senior apartments. The owners tend to balance the trade-off between the high quality of physical and social environment and development and operational costs. But as more and more private senior living homes being built in suburban areas because of land supply and cost constraints in City Center, the high income and open-minded elderly who want to move to such luxury senior homes have more choices. After all, only about 10-20% of the seniors have the financial capability to pay for the middle to high-end senior home costs, among which a large group of young seniors choose home-based care.

In terms of location, both homes are out of the Middle Ring Road and have limited public transportation in the walkable distance to the homes. The interviewed elderly in Xijiao URC don't often go outside of the enclosed senior home, whereas the residents in the StarCastle are more willing and have more freedom to go out. There are shuttle buses provided in StarCastle, which meet the basic requirements for the seniors to travel around. In the above individual case research results, we know that the basic daily life demands are provided inside the senior homes. The most crucial concern for the seniors in these two cases is the convenience of visits from their families. Currently, most of the adult children among my interviewed seniors drive to the homes since the households are relatively fall in the high-income group. However, if more suburban senior homes for different income levels are planned and built, the public transportation should be a significant factor to be considered since it influences a lot in the seniors' selection decision process.

After detailed comparison of the basic conditions in the four cases, it is obvious that the location and pricing are extremely important for the success of senior living homes. Trade-offs including social programs and senior services can make up for the shortage to some degrees.

#### *Senior Residents Evaluation Comparison*

Interview and survey results are consolidated (See Table 5 in the Next Page) by the six factors I designed for collecting satisfaction evaluation. Although there is sampling limitations, we can still compare about the general trends in the four cases.

It is obvious that #1 EH has the absolute advantage in its location. Xijiao URC seniors also enjoy the senior home's location to some extent. However, StarCastle and Cherish-Yearn don't win much positive evaluation in this aspect. The fact is that Xijiao URC and StarCastle have similar relative position between the Middle and Outer Ring Road, but the former senior home locates inside the City Center area (Refer to Figure 14). In these two cases, the common perception of City Center affects a lot on seniors' ratings.

Regarding the housing conditions, a larger proportion of the interviewed or surveyed seniors are satisfied in all the four cases. This is because they are intentionally selected to be well known in the current senior living market. The physical environment is often the first factor to make people impressive. The housing qualities in my studied homes are regarded as mid- to high-end in their own categories or classes. The large samples of Cherish-Yearn case helps in validating the seniors' perceptions on the popularity of the physical conditions in these four cases.

Among the four cases, the three senior living homes except #1 EH have at least clinics for medicine distribution, common illness and nearby cooperative A level hospitals. Cherish-Yearn has a hospital-like building for different departments. Although #1 EH doesn't have health care facilities in the building, it's close to several A level hospitals and have strong support from surrounding resources. It can be indicated from the satisfaction evaluation surveys that advanced and efficient health care guarantees are significant for seniors.

**Table 5** Senior Interviews and Surveys Result Summary

Factors	Cases	Very Satisfied	Generally Satisfied	Just-so-so	Somewhat Unsatisfied	Totally Unsatisfied	
Location	#1 EH	100%	-	-	-	-	100%
	Xijiao URC	36%	20%	28%	8%	8%	36% 20% 28% 8% 8%
	StarCastle	-	20%	50%	10%	20%	0% 20% 50% 10% 20%
	Cherish-Yearn	8%	12%	35%	31%	14%	8% 12% 35% 31% 14%
Housing Conditions	#1 EH	60%	-	40%	-	-	60% 0% 40% 0% 0%
	Xijiao URC	60%	20%	16%	4%	-	60% 20% 16% 4% 0%
	StarCastle	80%	20%	-	-	-	80% 20% 0% 0% 0%
	Cherish-Yearn	45%	32%	11%	8%	5%	45% 32% 11% 8% 5%
Caring Services	#1 EH	-	70%	30%	-	-	0% 70% 30% 0% 0%
	Xijiao URC	28%	60%	8%	-	4%	28% 60% 8% 0% 4%
	StarCastle	40%	10%	30%	20%	-	40% 10% 30% 20% 0%
	Cherish-Yearn	42%	31%	20%	5%	3%	42% 31% 20% 5% 3%
Entertainment and Exercise	#1 EH	20%	50%	-	30%	-	20% 50% 0% 30% 0%
	Xijiao URC	88%	12%	-	-	-	88% 12% 0% 0% 0%
	StarCastle	90%	-	10%	-	-	90% 0% 10% 0% 0%
	Cherish-Yearn	66%	25%	8%	2%	-	66% 25% 8% 2% 0%
Social Connection	#1 EH	40%	-	60%	-	-	40% 0% 60% 0% 0%
	Xijiao URC	32%	52%	8%	8%	-	32% 52% 8% 8% 0%
	StarCastle	60%	20%	-	10%	10%	60% 20% 0% 10% 10%
	Cherish-Yearn	32%	26%	22%	14%	6%	32% 26% 22% 14% 6%
Family Relationships	#1 EH	50%	20%	20%	-	10%	50% 20% 20% 0% 10%
	Xijiao URC	16%	36%	28%	8%	12%	16% 36% 28% 8% 12%
	StarCastle	60%	10%	20%	10%	-	60% 10% 20% 10% 0%
	Cherish-Yearn	22%	51%	14%	3%	11%	22% 51% 14% 3% 11%

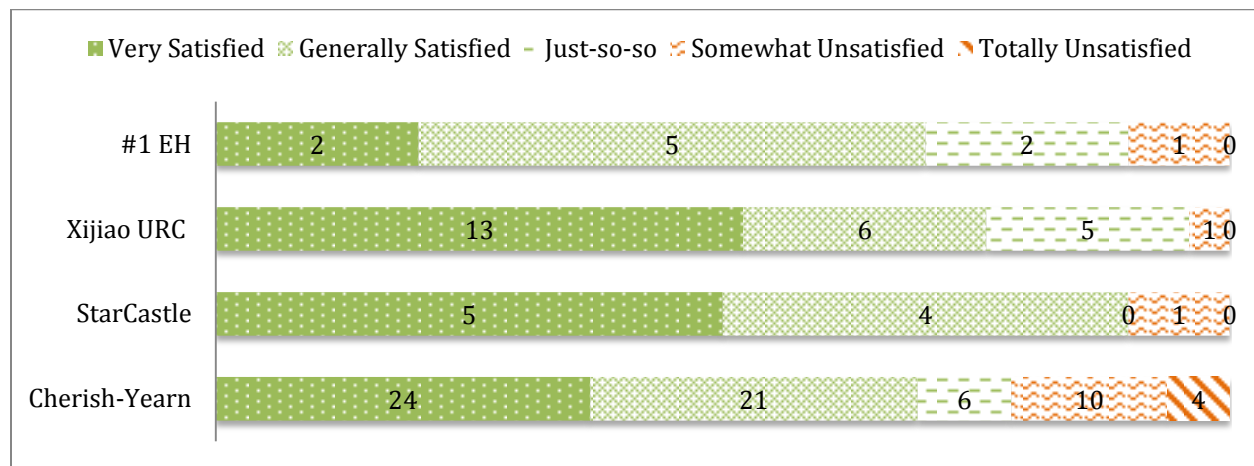
Source: Created by Author

Very satisfied Generally satisfied Just-so-so Somewhat unsatisfied Totally unsatisfied

The entertainment and exercise services in StarCastle, Xijiao URC and Cherish-Yearn (in this order) senior homes obtain high evaluations on their special rooms and programs for activities. Seniors are extremely interested in attending various interest groups like singing, dancing, calligraphy and so forth. There are also movies and sport facilities inside the communities. In #1 EH, the form of senior social programs are limited due to public resource limits and traditional senior living culture.

From the social connection survey question, we can have a general sense on social connections in the four senior homes. A high proportion of the interviewed residents are very satisfied with the social atmosphere in StarCastle. My fieldtrip observations demonstrate that the young staff and the seniors communicate actively and the residents interact with each other frequently. Since this is only a senior building, people have more chance to meet with others if they are in the public space. University volunteers also participate in the StarCastle senior programs.

In the four cases, StarCastle and #1 EH interviewees have relatively high satisfaction on family care. In #1 EH, the interviewees' children come to visit frequently because many live close or have easy access to the senior living home. For StarCastle, some interviewees go back home during weekends and have more flexibility in going outside. The evaluations in Xijiao URC and Cherish-Yearn love and belonging factor are relatively not that outstanding. The staff mobility in both senior homes is relatively high, which may be one reason for the seniors to be not that positive on social connection.



**Figure 23** Overall Satisfaction Evaluation Comparisons

Source: Created by Author

Through the comparisons, it's not hard to find that although the seniors in the four cases may have some dissatisfaction on detailed aspects, they are generally satisfied with the overall conditions. This can be demonstrated through the overall evaluation question result (See Figure 23). It is interesting that many seniors give a more positive evaluation at the end of the surveys. We can further explain the phenomenon through the two follow-up two questions. The first question is: What is the most crucial reason for the interviewees to move from their original homes? In the answers selected or told by the elder interviewees, a large number of the responses are positive and clustered

into “Accessing convenient health care resources”, “Looking for professional daily care services”, “Enjoying full and fun senior life”. The answer “Relieving children’s care burden” can be understood in a neutral way. On one side, some of the elderly care a lot about their children’s life quality. But on the other side, some others consider themselves as burdens for their children. These seniors’ motivations to move to senior homes are still positive, while their feelings may be negative in some circumstances.

The proportions of responses from the four cases are approximate on the main reasons for moving. The second question is: What is the decisive factor for them to select the senior home they live in now? The housing conditions, senior services, health care, location factors rank high among the options. In terms of the second question, the four senior homes have different specialties and focuses. The answers line with the characteristics with each case’s strength, which means the interviewed seniors have recognized and enjoyed the advantages of the senior homes.

## Discussion and Implications

### **Research Discussion**

We can apply Maslow's Hierarchy of Needs (**Refer to Figure 11**) as the framework to discuss about my research results. For the most basic physiological needs, including breathing, food, water, sleep, excretion and so on, all the four senior living homes meet their residents' demands through providing a place to live. The housing conditions survey results indicate that the seniors are satisfied with the fundamental living quality of the four senior homes. This is the original goal for launching senior homes. It is the easiest and the most crucial level to achieve.

On the second level, safety needs for seniors contain the security feeling of body, health, property and so forth. Seniors pay significant attentions on their health and thus need powerful health-care supports from senior homes. The elderly in StarCastle and Cherish-Yearn have privacy and option to stay alone in their apartments compared to those who live in the institutional senior homes. The former groups perceive high safety in property and body. Such feelings come from the relatively closed living environment according to survey talks.

The third tier is love and belonging needs from family, friends and social networks. The comparatively larger scale senior homes may be one of the reasons for fewer neighbors' and staff-seniors' interactions since both have more than one building in the community. Besides the external influences, the love and belonging perception is also decided by the elderly's characteristics. Out-going seniors can easily feel satisfied and connect to others. For senior home operators, one way to improve elderly's life satisfaction is to continue providing more opportunities for different seniors to meet people with the same interests and encouraging dynamic interaction between staff and residents.

The fourth and fifth need levels are esteem and self-actualization demands respectively. Esteem refers to the seniors' confidence, achievement and respects to and from others. Self-actualization is the highest level related to pursuing personal ideals and ambitions so that people can show their values to solve problems or achieve success in their fields. These two levels depend significantly on the seniors themselves. For instance, one of the interviewed seniors is a retired professor in a well-known university and she is proficient in classic flower-and-bird painting. Because of her talents and warm-heartedness, the staff, other elderly and her students respect her. She then prepares to set a scholarship in the university to encourage students in her research field<sup>11</sup>.

It's obvious that the individual motivation is the determinant impact on esteem and self-actualization needs. However, the senior living homes can still provide stages and chances to increase the elderly's psychological satisfaction in being respected. Even helping them to achieve personal pursuit. The opportunities can include inviting seniors with specialties to lead certain interest programs with other senior students in the community. The basic thought is to make different seniors feel that they are

---

<sup>11</sup> Interview with a senior resident at Xijiao URC.

important and valuable to others. In this level, seniors with healthy, stable economic and high educational status are more likely to feel satisfied with the senior homes.

Senior living providers can improve elderly's life satisfaction through the above-mentioned five hierarchical demand levels. The research basis is that seniors are living in an independent arrangement. However, from previous researches and studies on senior living homes, some scholars argue that age-integration, which commonly means staying with families and at the original age-diversified place, is a better living pattern for seniors' life satisfaction in old age years (Mumford, 1950; Freedman, 1996; Uhlenberg, 2000; Koropeckyj-Cox, 2002; Hagestad & Uhlenberg, 2006). However, some others contend that age-segregation pattern of senior life is cheaper, safer and happier (Burgess, 1925; Coulson, 1968; Golant, 1972; Portacolone & Halpern, 2014). There is also a neutral stand showing: no matter if it is age-integration or segregation, the seniors' satisfaction really depends on different cases (Sherman, 1975).

I agree with the neutral viewpoint to discuss under certain circumstances. It is evident that the living pattern in my four selected cases is all age-segregation. I can't compare if it is better to live in age integrated or segregated home arrangement since I decide to not include home-based senior care in my study. Consequently, the comparative "cheaper, safer and happier" viewpoint can't be verified. However, for the point of "cheap", the public subsidize senior institutions with good physical conditions are indeed cheap and attractive, whereas the private ones are actually not "cheap" but kind of "expensive". The "safe" factor can be verified through the seniors' emphasize on the health care resources when considering moving, deciding the senior homes and evaluating the care services. In the overall evaluation of the life satisfaction above, it can be indicated that the interviewed active seniors are "happy" to some extents.

We can further find from my observation and survey findings that most of the elder interviewees propose to move to the senior homes by themselves, though in different dominant reasons. That is to say, they make their own decisions and have relatively positive attitude towards senior living homes, a mostly-perceived age segregated atmosphere. As long as this is the case, most of the seniors can find guaranteed life quality that meets their specific demands since they put their most emphasized factors in mind when selecting the preferred new homes. These two points can strongly support the fact that the surveyed and interviewed seniors present a not negative overall evaluation on the senior homes they live in.

In addition, I find during my field trips that in the four senior home cases, the atmosphere is not purely age-segregated. There are elements of age-integration in these places. For instance, I have observed that there are volunteer senior-care programs in StarCastle. University students from Baoshan District have interest group with the elderly. The activities I saw include craft-making and learning English. The young students interact with the elderly in a relaxing atmosphere. Also, there are young staffs in StarCastle and Cherish-Yearn. The staffs are warm-welcomed have really intimate relationships with the senior residents. These social interaction parts in senior homes provide a sense of being cared, which is significant to the old people. Besides, the small-scaled senior living home is plugged in residential communities without a clear gate.



The active seniors can always walk around in the age-integrated environment like living at their original homes.

From my study on the four Shanghai senior living homes, it verifies the studies that housing qualities, health facilities and the abundant senior activities are determinant factors for the elderly to enroll in senior homes. Among the top reasons, the quality of physical living environment is the most important determinant for the interviewees to choose the senior home (Toseland & Rasch, 1978; Evans, Kantrowitz & Eshelman, 2001). However, the premise of this viewpoint is that the seniors who perceive housing conditions as the most significant determinant to enroll should have sufficient economic support and are in fairly healthy status. Besides, most of the surveyed elderly in the four senior homes self-reported that their living environment is in great quality and they are satisfied with the physical conditions. This exemplifies that the Person-Environment relationship (Kahana, Lovegreen, Kahana & Kahana, 2003) is a more considerable indicator to describe the elderly satisfaction on physical environments.

### ***Planning Implications and Suggestions***

Based on the current situations and the four cases analyzed above, we know the insufficient aspects in different types of senior living homes. For traditional senior institutions, Shanghai is facing large shortage of cheap ones with good quality in housing and services. Whereas for the senior living communities with great physical environment, the financial model is still under exploration since the private owners can hardly maintain the high quality services under negative profit circumstances. These findings line with the previous studies and real situations (Jiang, 2011; Yang, 2013). More attention is gradually paid on current governmental policy supports in both institutional and community-based senior homes.

As for planners, we should promote for the big picture in balancing the real demands of active seniors and feasible senior living home developments in the urban and suburban regions. In the background section, it is elaborated that the City Center senior living homes are highly welcomed and almost all institutions are fully occupied<sup>12</sup>. Referring back to the **Figure 3** map, the absolute numbers of seniors are large but the senior beds are extremely in short in City Center area.

On one hand, the location importance of current senior homes is significant. City Center senior homes are often close to elderly's original apartments. Although some of them, either public or private, are not satisfying in living environment, many elderly are still willing to enroll. Under such circumstance, in order to guarantee the quality of existing senior homes, government should establish detailed senior living home evaluation criteria that are executable to standardize different levels of the institutional or community-style senior care. For those unqualified senior homes, upgrading supported by the government will be a proper tool to improve. The main focus should mostly put on the indoor physical environment such as natural lighting, furniture replacement and HVAC (heating, ventilating and air conditioning) systems. Social interactions can also be increased through recreational programs. The institutional ones need more senior

---

<sup>12</sup> "Overwhelming Seniors" (银发汹涌) Documentaries episode 3.

activities to increase social connection with both other seniors and the young generations.

On the other hand, only a small proportion of new senior homes can be built in City Center, which is not an exhaustive solution. Since the land price is so high and available land is little, adaptive reuse can be a suitable way to alter the original uses of some inefficient downtown buildings and convert them into age-friendly living apartments. The troublesome permits and high construction fees may become two hard problems for private developers. Government needs to establish transparent and reasonable approval processes and criteria to reduce the complexity and lengthiness. In addition, special allowance in infrastructural costs and other facilities can be granted on cases basis.

Since increasing City Center senior living space is not a crucial effective measurement to reduce the demand pressure, suburban senior living communities will be a major feasible option to relieve the issue. There is at least enough land for building new senior homes. Due to larger available space, the physical environment and conditions can be more advanced than those in City Center. But the problem concentrates on the location and matching services in suburban regions. Seniors may feel inconvenient living far from their adult children, commercial center, public transportation and most importantly large hospitals. These main factors are significant when new senior home developments are planned. Current policies like land and tax discount, and senior service allowance are too trivial and can hardly effectively support new private senior home developers. Few innovative senior living operation models are gaining profits. Even to such successful cases, the government tends to discourage the private owners' enthusiasm through political interventions, defining the project failed to be "non-profit"<sup>13</sup>.

It is evident that the government can have more positive impacts on senior living industry through more enlightened and open attitude. Despite providing sufficient subsidies to current public-owned senior homes, the government starts to apply public and private cooperation mechanism to increase the participation of experienced private senior institutions operators. In this way, the government helps to reduce the risks and financial burden for the private sectors. However, even the well-operating senior institutions can hardly reach break-even. For the private investors who enter the senior living community development submarket are often encouraged by central and local governments' favorable policies in land, tax and operation. More actionable and fair policies should be established for the healthy development of private senior homes.

In current immature senior industry, the government should encourage various innovative private senior living homes with proper restrictions in preventing owners from unreasonably benefiting through the seniors for the first step. There is no doubt that senior care is a social welfare career. The policies should have hierarchies to instruct different levels of private senior homes. For instance, the discount or allowance can be divided into several levels to subsidize senior living homes targeting on different senior classes. Senior homes accommodating low-income groups can enjoy high and

---

<sup>13</sup> Interview with practitioners

long-term subsidies while high-end senior communities may have reasonable amount and term of supports. Besides, it should be remembered that the policies are set to make real differences instead of promoting for opinions.

Although the aging issue is serious and urgently waiting to be relieved, the senior home market that is gradually becoming popular encourages an increasing number of private investors. People are devoting themselves to explore sustainable development and operation modes. I believe the practice now in the market of Shanghai, and China, is actively contributing to the positive and innovative development in a long-term. The change needs time, but it won't be too far. Some estimates that the maturity of Chinese senior home provision can be seen in 15-20 years<sup>14</sup>.

---

<sup>14</sup> Interview with the Xijiao URC Vice Principal; Interview with the Cherish-Yearn CEO

## **Conclusion**

The study of the Chinese active seniors' living satisfaction in different types of senior homes is conducted in a structured and comparative way. The research is aimed at suggesting an appropriate strategic plan about senior home development based on in-depth representative case investigations in Shanghai, which show a sketched big picture for the current senior home provisions. I have collected qualitative and partially quantitative data on senior living home scale and structure, physical environment and social environment. The three hierarchies of the factors contribute to the informational and organized research. Observation, questionnaires and face-to-face surveys are applied for obtaining factor evaluations and overall life satisfaction data from residents in targeted senior homes. The research is composed of empirical case studies and comparison Analyses. Planning suggestions and policy implementations are given according to research findings for future senior home development.

In this research, I have examined the basic attributes of the senior homes including ownership, home type, location, gross area, capacity, occupancy, enrollment limitation and costs. The general trends we can find through these cases are that the government and private developers are trying different innovative approaches to provide qualified senior homes to the elderly. Current senior communities are designed to be more senior-friendly, and support elderly's life as if they are still living at home. Because of the high requirements on environment qualities, the development costs are high. Consequently, the monthly charges from the seniors are relatively expensive in order to cover the development and operation costs.

I surveyed the satisfaction evaluation on senior living homes focusing on location, housing conditions, caring services, entertainment and exercise, social connection and family relationships. The four chosen cases have really different advantages and disadvantages, and the evaluations from the elder residents in each of the senior homes generally reflect and match with the special features. City-central senior homes are generally evaluated better and more popular than those in the urban fringe or suburban areas. Housing conditions including the physical and social surroundings turns out to be an important determinant for active seniors to both choose independent living institutions or communities and live a satisfied life. Caring service is another significant factor for the seniors to decide which senior home to move in. Entertainment and exercise facilities are often frequently required and used by active seniors with better health, more stable economic status and higher education, who tend to be more satisfied with the services provided in senior homes. In terms of social connection, it is evident that out-going and open-minded seniors can be easier to feel satisfied about networking with different neighbors and staff. Besides, the interaction between the elderly with young people like volunteers or staff is also influential in this aspect. For the family relationships factor, it shows that people are generally satisfied with their current conditions, but in each case, the top-level "Very Satisfied" evaluation is not high enough compared to those on the other factors.

Combining the characters of the senior respondents and the senior homes, we can find that there is a "cluster" effect among active seniors. Those with better economic status

and higher education are more willing to enroll in senior living communities rather than institutions. These people care about their later year life quality and self-value in groups. While the elderly in middle level have larger concern on health care convenience. Due to these preferences and trends, the private developers should put their focus on

However, given the limited time for my field trips, I haven't talked to any seniors in extremely poor conditions in this research, but I believe this group should be taken care of by the government. This is one of the insufficient points in the research that can be further studies at the next step. Another potential area that can be included in the future is about those spend their senior years at home. Detailed investigations in this large group of seniors can contribute to more comprehensive demand analysis and comparisons with those living in age-segregated settings.

In the last part, I suggest a strategic plan on a master plan for senior living development based on different types of senior homes and various classes of elderly. The main idea is to increase City Center senior institutions and/or apartments in small proportion and encourage senior living community development in suburban areas. The government should introduce more integral, open and mature policies so as to recruit more private investors, attract more capital and stimulate more innovations in meeting the senior living home demands appropriately.

## Reference

- Ai, B. (2005). A Study on Ecological Evaluation and Spatial Pattern of Community: A Case Study of Core Urban Area of Shanghai City. Master's thesis. East China Normal University.
- Alley, D., Liebig, P., Pynoos, J., Banerjee, T., & Choi, I. H. (2007). Creating elder-friendly communities: Preparations for an aging society. *Journal of Gerontological Social Work, 49*(1-2), 1-18.
- Barrier Free Environments, Inc., & Barrier Free Environments Incorporated. (2010). *The accessible housing design file*. John Wiley & Sons.
- Bednar, M. J. (1977). *Barrier-free environments* (Vol. 33). Van Nostrand Reinhold.
- Best, F. (1980). *Flexible Life Scheduling*. New York: Praeger.
- Burgess, E. W. (1925). The growth of the city: An introduction to a research project. In R. Park, E. Burgess, & R. McKenzie (Eds.), *The city*. Univ. Chicago Press, Chicago.
- Chen, Z. & Hu, H. (2013). *Architectural design and planning of an aging society: social pension and retirement communities*. Machinery Industry Press, Beijing. 133-134.
- Cooper, B. A., Cohen, U., & Hasselkus, B. R. (1991). Barrier-free design: A review and critique of the occupational therapy perspective. *American Journal of Occupational Therapy, 45*(4), 344-350.
- Coulson, M. (1968). The distribution of population age structure. *Annals of Association of American Geographers, 1968*(55), 155-176.
- Cowgill, D. O. (1978). Residential segregation by age in American metropolitan areas. *Journal of Gerontology, 33*(3), 446-453.
- Cumming, E., Dean, L. R., Newell, D. S., & McCaffrey, I. (1960). Disengagement-a tentative theory of aging. *Sociometry, 23*-35.
- Evans, G. W., Kantrowitz, E., & Eshelman, P. (2002). Housing quality and psychological well-being among the elderly population. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 57*(4), P381-P383.
- Freedman, Vicki A. 1996. "Family Structure and the Risk of Nursing Home Admission." *Journal of Gerontology: Social Sciences* 51B:S61-69.
- Golant, S. M. (1972). The residential location and spatial behavior of the Elderly: a Canadian Example. *Research Paper University of Chicago, Department, (143)*.
- Goldsmith, S. (2000). *Universal design: a manual of practical guidance for architects*. Routledge.
- Golland, A. & Gillen, M. (2004). In Golland, A. & Blake, R. (Eds.), *Housing Development Theory, process and practice*. Psychology Press. 57.
- Gu, D., Dupre, M. E., & Liu, G. (2007). Characteristics of the institutionalized and community-residing oldest-old in China. *Social Science & Medicine, 64*(4), 871-883.
- Gu, D., Vlosky, A.D., & Zeng, Y. (2009). Gender differentials in transitions and expected years spending in seven living arrangements among the oldest-old in China: A population-based decrement- increment life table analysis. In H. T. Benninghouse & A. G. Rosset (Eds.), *Women and aging: New research* (pp. 539-575). New York: Nova Publisher.

- Hagestad, G. O., & Uhlenberg, P. (2006). Should we be concerned about age segregation? Some theoretical and empirical explorations. *Research on Aging*, 28(6), 638-653.
- Handy, S. L., Boarnet, M. G., Ewing, R., & Killingsworth, R. E. (2002). How the built environment affects physical activity: views from urban planning. *American journal of preventive medicine*, 23(2), 64-73.
- Holmes-Siedle, J. (1996). *Barrier-free design: a manual for building designers and managers*. Routledge.
- Huang, H., Li, X., Zhang, T., & Han, B. (2011). Life satisfaction and mental health of Chinese older adults in different living arrangements. In *Human Health and Biomedical Engineering (HHBE), 2011 International Conference on*(pp. 1152-1155). IEEE.
- Jiang, H. (2011). Senior Living Property Investment and Management. *Social Sciences Academic Press, China*.70-72.
- Kahana, E., Lovegreen, L., Kahana, B., & Kahana, M. (2003). Person, environment, and person-environment fit as influences on residential satisfaction of elders. *Environment and Behavior*, 35(3), 434-453.
- Kennedy, J. M., & De Jong, G. F. (1977). Aged in cities: residential segregation in 10 USA central cities. *Journal of Gerontology*, 32(1), 97-102.
- Koropecykj-Cox, T. 2002. "Beyond Parental Status: Psychological Well-Being in Middle and Old Age." *Journal of Marriage and Family* 64:957-71.
- Lawton, M.P. (1982). Competence, environmental press, and the adaptation of older people. In Lawton, M.P. , Windley, P.G. & Byerts T.O. (Eds.), *Aging and the environment: Theoretical approaches*, Springer, New York (1982), pp. 33-59
- Lawton, M. P. (1983). Environment and Other Determinants of Weil-Being in Older People. *The Gerontologist*, 23(4), 349-357
- Lee, S. M. (2013). A Study on Governance Structures and Functions of Hearing and Speech Impaired Welfare Associations. Master's Thesis. Nan Hua University.
- Li, S. M., Zhu, Y., & Li, L. (2012). Neighborhood type, gatedness, and residential experiences in Chinese cities: A study of Guangzhou. *Urban Geography*, 33(2), 237-255.
- Lu, Y. (2014). How Can Private Senior Institutions Come over Operational Difficulties? Xinmin News, May 28. [http://xmwb.news365.com.cn/bf/201405/t20140528\\_1056577.html](http://xmwb.news365.com.cn/bf/201405/t20140528_1056577.html) Accessed on Apr. 11.
- Liu, L. J., & Guo, Q. (2007). Loneliness and health-related quality of life for the empty nest elderly in the rural area of a mountainous county in China. *Quality of Life Research*, 16(8), 1275-1280.
- Lui, C. W., Everingham, J. A., Warburton, J., Cuthill, M., & Bartlett, H. (2009). What makes a community age- friendly: A review of international literature. *Australasian Journal on Ageing*, 28(3), 116-121.
- Luo, B. (2009). The impact of rural-urban migration on familial elder care in rural China. *Unpublished dissertation*, Georgia State University, Georgia.
- Mace, R. L., Hardie, G. J., & Place, J. P. (1990). *Accessible environments: Toward universal design*. Center for Accessible Housing, North Carolina State University.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, 50(4), 370.

Michael, Y. L., Green, M. K., & Farquhar, S. A. (2006). Neighborhood design and active aging. *Health & place, 12*(4), 734-740.

Ministry of Civil Affairs of People's Republic of China (2014).

<http://www.mca.gov.cn/article/zwgk/mzyw/201406/20140600654488.shtml> (Accessed on Feb. 17th, 2015)

Mumford, L. (1950). For older people—not segregation but integration. *Architectural Record, 119*, 191-194.

Nakagawa, S. (2006). Textbook for universal design.

National Bureau of Statistics of China (2010),

<http://www.stats.gov.cn/tjsj/pcsj/rkpc/6rp/indexch.htm> (Accessed on September 20th, 2014)

Ning, C. F., Lu, X. Q., Wang, C. M., & Yuan, Q. D. (2002). Study of subjective happiness and gloomy emotion of the old living in the socialized aged organization. *Chinese Journal of Behavioral Medical Science, 5*, 043.

Nirje, H. (1969). The normalization principle and its human management implications. In R. Kugel & W. Wolfensberger (Eds.), *Changing patterns in residential services for the mentally retarded*. Washington: President's Committee on Mental Retardation, 179-195.

Pearce, B.W. (2007). Senior Living Communities: Operations management and marketing for assisted living, congregate, and continuing care retirement communities. *Care Management Journals, 10*(1), 41.

Peloquin, A. A. (1994). *Barrier-free residential design*. New York, NY: McGraw-Hill.

Phillips, J. E., Ajrouch, K. J., & Hillcoat-Nallétamby, S. (2010). *Key concepts in social gerontology*. Sage.

Plouffe, L., & Kalache, A. (2010). Towards global age-friendly cities: determining urban features that promote active aging. *Journal of urban health, 87*(5), 733-739.

Portacolone, E., & Halpern, J. (2014). "Move or Suffer" Is Age-Segregation the New Norm for Older Americans Living Alone?. *Journal of Applied Gerontology, 0733464814538118*.

Rosow, I. (1961). Retirement housing and social integration. *The Gerontologist, 1*(2), 85-91.

Rehn, G. (1977) Towards a society: problems and prospects. *Proceedings of the American Philosophical Society, 132*: 148-153.

Riley, M. W., Foner, A., & Riley, J. W., Jr. (1999). The aging and society paradigm. In V. L. Bengtson, & K. W. Schaie (Edhs.), *Handbook of theories of aging*. New York: Springer, 327-343

Riley, M.W., & Riley, J.W. (1994). Age integration and the lives of older people. *The Gerontologist, 34*: 110-115.

Riley, M. W., & Riley, J. W. (2000). Age integration conceptual and historical background. *The Gerontologist, 40*(3), 266-270.

Silverstein, M., Cong, Z., & Li, S. (2006). Intergenerational transfers and living arrangements of older people in rural China: Consequences for psychological well-being. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 61*(5), S256-S266.

Sirgy, M. J., Michalos, A. C., Ferriss, A. L., Easterlin, R. A., Patrick, D., & Pavot, W. (2006). The Quality-of-Life (QOL) Research Movement: Past, Present, and Future. *Social Indicators Research, 76*(3), 343-466.



Sherman, S. R. (1975). Patterns of contacts for residents of age-segregated and age-integrated housing. *Journal of Gerontology*, 30(1), 103-107.

Sweaney, A. L., Mimura, Y., & Meeks, C. B. (2004). Changes in Perceived Housing Quality Among Elderly Movers: Does Neighborhood and Tenure Matter?. *Journal of Housing for the Elderly*, 18(2), 3-16.

The Economist. (2012). Demography: China's Achilles Heel.

<http://www.economist.com/node/21553056>. Accessed at: Oct. 29, 2014.

Toseland, R., & Rasch, J. (1978). Factors contributing to older persons' satisfaction with their communities. *The Gerontologist*, 18(4), 395-402.

Uhlenberg, P. (2000). Integration of old and young. *The Gerontologist*, 40(3), 276-279.

Uhlenberg, P., & de Jong Gierveld, J. (2004). Age-segregation in later life: An examination of personal networks. *Ageing and Society*, 24(01), 5-28.

Wang, H. & Hong L. (2011). The Research of a Senior Care Modern in an Hybrid Community in City of Guangzhou, *Master Dissertation*. South China University of Technology.

World Health Organization (Ed.). (2007). *Global age-friendly cities: A guide*. World Health Organization.

Wu, Y. (2013). China Report of the Development on Aging Cause. *Social Sciences Academic Press: Beijing, China*.

Yan, B., Gao, X., & Lyon, M. (2014). Modeling Satisfaction Amongst the Elderly in Different Chinese Urban Neighborhoods. *Social Science & Medicine*, 118, 127-134.

Yang, X. (2013). Research on Establish the Model of the Aged Caring Community – Take Kunming as an Example. Master's thesis. Yunnan University, 19-20;85-88.

Zhan, H.J., Luo, B. & Chen, Z.(2012). Institutional Elder Care in China. In Chen, S. and Powell, J.L. (Eds.), *Aging in China: Implications to Social Policy of a Changing Economic State*, New York: Springer.

Zhang, B., & Cheng, J. F. (2007). Application of Barrier-free Design Theory in Furniture for Elderly Person [J]. *Packaging Engineering*, 3, 043.

Zhang, J. (1996). China's urban residential community in the course of transfer of social pattern. *Chinese Geographical Science*, 6(4), 332-341.

Zhang, L., & Zhang, P. (2003). The Study on Barrier-Free Bathroom for Aged Person [J]. *Packaging Engineering*, 6, 030.

Zhao, Q. (2012). Integration Research on the Healthy and Ecological Community Evaluation System. Master's thesis. Tianjing University.

Zhou, H. (2014). Encourage the built of Senior Living Institutions through Social Power. *Dongfang Daily*. Jul. 22, 2014.

[http://epaper.dfdaily.com/dfzb/html/2014-07/22/content\\_909269.htm](http://epaper.dfdaily.com/dfzb/html/2014-07/22/content_909269.htm). Accessed on: Mar. 10, 2015

## Appendix

### A. Senior Survey and Interview

#### Evaluating Your Senior Living Quality

Hello,

I'm a graduate student from Columbia University, USA. Currently, I'm working on my thesis about Senior Living Homes in China. I'm really interested in exploring what kind of senior home is a good fit to Chinese elderly. Your experience and opinion will be extremely helpful and meaningful to me. So please spend around 5 minutes to finish this survey about your community and life quality. Thank you!

Xiaomin Qian

#### PART 1: Demographic Questions

**Gender**      Male      Female

**Age** \_\_\_\_\_

**Monthly Income** (Include pension and other sources) \_\_\_\_\_

#### Education Completed

No Schooling      Primary School      Junior High School      High School  
Bachelor's Degree or higher

#### PART 2: Living Satisfaction Questions

**Please evaluate 1 to 5 for different community life aspects in the following table**

How do you feel about:	Evaluation 1: Totally unsatisfied 2: Somewhat unsatisfied 3: Just-so-so 4: Generally Satisfied 5: Very Satisfied				
	1	2	3	4	5
Location					
Housing Conditions					
Caring Services					
Entertainment and Exercise					
Social Connection					
Family Relationships					

#### How do you feel about your overall life in this senior community?

Very Satisfied  
Generally Satisfied  
Just-so-so  
Somewhat unsatisfied  
Totally unsatisfied

*PART 3: Living Arrangement Choice Questions*

**What is the most crucial reason for you to move from their original homes?**

- Expect better daily care service
- Get access to emergent or convenient healthcare service
- Enjoy the colorful senior life activities and facilities
- Reduce the burden on adult children
- Other \_\_\_\_\_

**What is the decisive factor for you to select the senior home they live in now?**

- Health Care Conditions
- Distance to Adult Children's Home
- Proper Price
- Good Housing Environment
- Rich Senior Care Services and Activities
- Convenient Public Transportation
- Mature Surrounding Matching Services
- Decided by Adult Children
- Other \_\_\_\_\_

Thank you so much for your time! Please feel free to contact me at 18627095758 if you have more questions.

***B. Practitioner Interview Questions***

- How long have you been working in senior industry?
- Could you tell me about your motivation for developing/working at the senior homes?
- Could you describe about the communities you work for (e.g. the location, community scale, demographic structure, senior facilities and services, physical environment, surrounding environment and so on)?
- According to your experience in this industry and observations, what kind of old people live more happily?
- What factors do you think contribute most to the elderly's happiness in later years? (e.g. living environment, communication with family member, connection to neighborhood, healthy, good economic status and so on)? Why?
- What aspects can be improved in the senior home you work for in order to improve the elderly's life quality? (e.g. senior-oriented indoor facilities, senior services, surrounding infrastructures and so on)
- How do you see the current development of Institutional and Apartment-type Senior Living Homes in Shanghai and China?
- Do you expect more support from the government for the Senior Living Home?
- What are your expectations for future Senior Living Homes?