Analysis of elderly health care in Mongolia

By

ENKHBAYAR, Purevsuren

THESIS

Submitted to

KDI School of Public Policy and Management

In Partial Fulfillment of the Requirements

For the Degree of

MASTER OF DEVELOPMENT POLICY

2021

Analysis of elderly health care in Mongolia

By

ENKHBAYAR, Purevsuren

THESIS

Submitted to

KDI School of Public Policy and Management

In Partial Fulfillment of the Requirements

For the Degree of

MASTER OF DEVELOPMENT POLICY

2021

Professor Lee, Junesoo

Analysis of elderly health care in Mongolia

By

ENKHBAYAR, Purevsuren

THESIS

Submitted to

KDI School of Public Policy and Management

In Partial Fulfillment of the Requirements

For the Degree of

MASTER OF DEVELOPMENT POLICY

Committee in charge:

Professor Lee, Junesoo, Supervisor Junesoo Lee

Professor Choi, Seulki

Professor Baek, Jisun

Approval as of August, 2021

Abstract

The purpose was to provide an overview of the main issues related to aging and health of elderly in Mongolia. The Mongolia is located in north east Asia with just more than 3,200,000 population. In 2020, the average life expectancy at birth was 70.71 years, an increase of 1.14 years over the previous five years. In 2020, the gender gap in life expectancy at birth was 9.5 years. The total number of older persons who had outpatient examinations in 2017 was 3.1 million (in repeated numbers). Of the total number of outpatients examined, 38.7 percent were men and 61.3 percent were women. In terms of age groups, 34.6 percent are between the ages of 55 and 59, 27.8 percent are between the ages of 60 and 64, and 37.6 percent are 65 and over. Cardiovascular diseases account for about 35.1 percent, 12.6 percent for gastrointestinal diseases, 10.3 percent for urinary tract system diseases and neurological diseases about 8.7 percent of the total hospitalized elderly. In Mongolia, long-term care for the elderly and disabled is weak, as most long-term care is provided unofficially within the family. The country has attempted to address issues related to limited capacity and lack of cross-sector cooperation and unmet elderly needs.

Key words: Elderly health, Aging, Mongolian Elderly, Health care

Dedicated to

My beloved grandparents

ACKNOWLEDGEMENT

First, I would like to express my gratitude to Professor Junesoo Lee who thaught me Policy process analysis course and Professor Choi Seulki who taught me Population and Development course in KDI School. Your insightful classes, valuable feedback helped me here to complete my thesis on health of Mongolia's elderly.

Also, I would like to thank Kim Kumja, a professor at Ulsan's Choonhae Health Sciences College, Busan's Han Donghee, and the friendly Korean people, for their kindness and support to me while I was away from family.

I also want to appreciate to my National Gerontology center colleagues for their support and assistance.

Finally, I want to express my gratitude to my husband who supports all time, my three precious kids who are my reasons of being and my mother who always lifts me up.

Contents

1. INTRODUCTION

Population aging is a demographic situation in which, as fertility and mortality rates drop, the proportion of aged people in a population rises, eventually leading to population reduction.(Park, 2018) Population aging, which was first noticed in Europe, is now a global issue. The demand for specialized health services for the elderly grows as the population ages, as do the health-care system's issues. This pattern is likely to persist in the future.

1.1. Background and problem definition

Population aging is adversely affecting developing countries with lower levels of socio-economic development. Many Asian countries are dealing with fast aging populations, with an increase in the elderly seeking more care, an increase in chronic disease load, and smaller household sizes making conventional support and care increasingly difficult to deliver. Women over the age of 55 and men over the age of 60 are considered elderly in Mongolia, which is reasonable given the average life expectancy. However, the large age gap between these genders has a negative impact on the quality of life and healthy aging of elders, as they spend years of their lives in isolation, depression, anxiety, and poor health. The proportion of elderly aged over 60 years will be double from 7.98 in 2015 percent to 16 percent in next 15 years. The average life expectancy at birth became 69.86 years, 75.84 for women and 66.02 for men according to the 2015 statistical report.

The number of older persons in Mongolia had reached 201678 which were 7.2 share of total population in 2010, increased to 244162 which are 7.98 percent of the total number of people in 2015. By 2030, number of the older population is expected to increase to 535761 which are 2.2 times compared to the numbers of older persons in 2015. The projected increase

can be explained by the mortality decrease from 1950s and the rapid decline in total fertility rate from the highest 7.6 in 1965 to the lowest 2.0 in 2000.

As the dependency ratio (DR) falls till 2010 at the minimum level, number of people in the working age population increases, the demographic window opens to prepare for population ageing at the appropriate stage and improve well-being and health of older people.

The Madrid International Plan of Action on Ageing and the Political Declaration adopted by the Second World Assembly on Ageing in April 2002 to address aging issues as a global agenda. In 2003, two doctors were selected to study ageing issues with multi-disciplinary approach in International Institute of Ageing in Malta, the Institute that mandated by the United Nations (UN) to respond to the training needs of developing countries to implement the Madrid International Plan of Action on Ageing. In the autumn of 2005, with the support of WHO, Health Sciences University of Mongolia had developed Geriatric medicine curriculum and trained two geriatric doctors from Ulaanbaatar and three nurses from 3 provinces Uvurkhangai, Dornod and Khovd. However, during this period, there was low priority within the health professionals regarding the challenges of the demographic shift and low levels of geriatric and gerontological training among doctors and medical professionals.

1.2. Purpose and research question

The purpose of this research is to provide an overview of the main issues related to aging and health care of the elderly in Mongolia. Consistent with that, major research question would be: *What are the characteristics of Mongolia's aging population and elderly health? What are Mongolia's key policies on geriatric health care? What gaps exist in meeting the health needs of the elderly?*

1.3. Hypothesis

In response to the study questions: *"What are the characteristics of Mongolia's aging population and elderly health? What are Mongolia's key policies on geriatric health care? What gaps exist in meeting the health needs of the elderly?"* this research anticipates that the elderly health concerns are complex, and that a lack of stakeholder participation and an inadequate physical environment have resulted in unmet demands for elderly health care services.

1.4. Materials and methods

The study's data was mostly gathered through document analysis, which included published figures from national and international organizations such as National Gerontology center, Ministry of Health, National Statistical Committee (NSC), National Human Rights Commission (NHRC), United Nations Population Fund (UNPFA) as well as government publications, research reports, and other articles. This paper uses qualitative methods including examination of reports, cases, national programs and international conference documents. The discussion of the theory of the research is based primarily on relevant scholarly literature and case studies.

2. LITERATURE REVIEW

2.1. Characteristics of aging population

The current situation of population aging is presented in this chapter using main indicators such as the share of the aged population, dependency ratio, fertility rate, and life expectancy.

Countries are devoting more attention to the study of aging, or "gerontology," in order to avoid diseases related with age and longevity, to help the elderly live an active and healthy life, and to promote their overall health status.

The World Health Organization identified China as an ageing society in 1999, with 8.7% of the population over 65 years old in 2012, up from 5.1 percent in 1980. Over the last three decades, China's population has aged mostly as a result of prolonged fertility drops caused by population growth control policies and socio-economic development. Meanwhile, since the mid-1950s, the death rate has been declining as a result of successful public health measures, which has also had a significant, though statistically modest, role in population aging (WHO, 2018).

2.2. Health-related policies for the elderly

According to the World Health Survey, in developed countries, healthcare utilization has increased with age. Yet, this trend has not appeared in some developing countries. This pattern suggests that there are a significant number of unmet needs and major service gaps in healthcare settings. In China’s situation, providing better education and enhancing an age-friendly environment and services are also crucial in addressing health challenges for elderly (Q.Meng, H.Yang, W.Chen et al. 2015).

Age-friendly hospital frameworks and health-promotion interventions performed in clinical and hospital settings have been linked to improved results among the elderly in Taiwan (Chiou ST, 2009). According to the policy of Taiwanese age-friendly hospitals, there are four primary strategies: management policy, proper communication and services for the aged, an aging-friendly atmosphere in the hospital and patient care processes.

As society ages, the family dependency ratio increases due to the number of people with chronic diseases rises. There is also an increase in the number of disabled elderly.

Intergenerational or multigenerational co-residence with older persons has long been a cultural root for China's traditional family support system for elderly persons (Q.Meng, H.Yang, W.Chen et al. 2015).

Specialized and institutional care can be provided in geriatric hospitals, psychiatric hospitals, rehabilitation departments of public hospitals, rehabilitation centers in communities, social welfare institutions for disabled persons and nursing homes. Community based long-term care is still at an early stage of development. Long-term care at home and community-based long-term care are the future direction of long-term care development in China. The planning, design and management of long-term care is mainly the responsibility of the National Health and Family Planning Commission and the Ministry of Civil Affairs. Except those organizations, the China National Committee on Ageing, China National Working Commission on Ageing, Ministry of Human Resources and Social Security and the China Disabled Persons Federation are also engaged in ageing issues in China.

2.3. Aging and health

When it comes to what is required to improve the well-being and quality of life of older people, older persons indicate that health and care services are part of the problem when they become ill and dependent. (David Oliver, 2014). NCDs are closely tied to the aging process and the health of the elderly. Given the rising costs of NCDs to China's health systems, health policymakers are giving stronger responses to chronic health disorders a higher priority. In China, around 80% of adults aged 60 and up express a need for health care at any one time throughout a three-year period (SCDC, 2012).

The prevalence of illness among the elderly is considerable, with 8 out of 10 people suffering from some form of illness. Per person, there are 3–4 diseases (R.Oyunkhand, 2009).

Among elderly, leading diseases include cardiovascular disease, renal and urinary tract disorders, eye and its by-products, respiratory diseases, and psychiatric disorders. In the general population, mental illness is the ninth most prevalent mental illness, but it is the fifth most common cause of mental illness in the elderly. As a result, consideration and attention are required (UNFPA 2015).

Older people discharged from acute hospitals without proper intermediate care for recovery can experience significantly poorer clinical outcomes within 12 months (Young etal., 2005). However, health systems often fail in the aspect of facilitating age-friendly environment, cooperation of service providers, leaving the burden of caretaking on the older person or their family to communicate relevant health information when needed. Consequently, many older people suffer from gaps in the coordination of health care service among the health service providers.

Another significant difficulty is the elderly's vast range of health and physical capability. This also means that some 75 years old may have physical and mental capacities comparable to many 35 years old. Many other persons might have major capacity losses at even younger ages. To sustain basic activities, some 60-year-olds might require assistance from others. As a result, the requirements of older persons must be addressed through a comprehensive and health-states stratified public health response and rehabilitation service.

China has adopted various regulations in recent years to assist the development of rehabilitation care, including the inclusion of rehabilitation services in the national basic health insurance and as part of the necessary health services for the elderly. Geriatric hospitals, mental hospitals, public hospital rehabilitation departments, community rehabilitation centers, social welfare institutes for disabled people, and nursing homes can all provide specialized and institutional care. The government also prioritized community-based rehabilitation and the

integration of prevention, treatment, and rehabilitation, as well as initiating a pilot project to complete the rehabilitation care system. Only 116 of the 322 rehabilitation hospitals are located at county and lower administrative levels; only 67 sanatoriums are located at county and lower administrative levels, contrasted to 194 nationwide (Ministry of Health, 2013).

3. CONTEXT OF MONGOLIA

3.1. Demographic changes

The Mongolia is located in north east Asia with just more than 3,200,000 population (*National statistical committee*, 2020). Women account for 68.7% of the elderly population. In 2020, the average life expectancy at birth was 70.71 years, an increase of 1.14 years over the previous five years. In 2020, the gender gap in life expectancy at birth was 9.5 years. (*National statistical committee*, 2020)

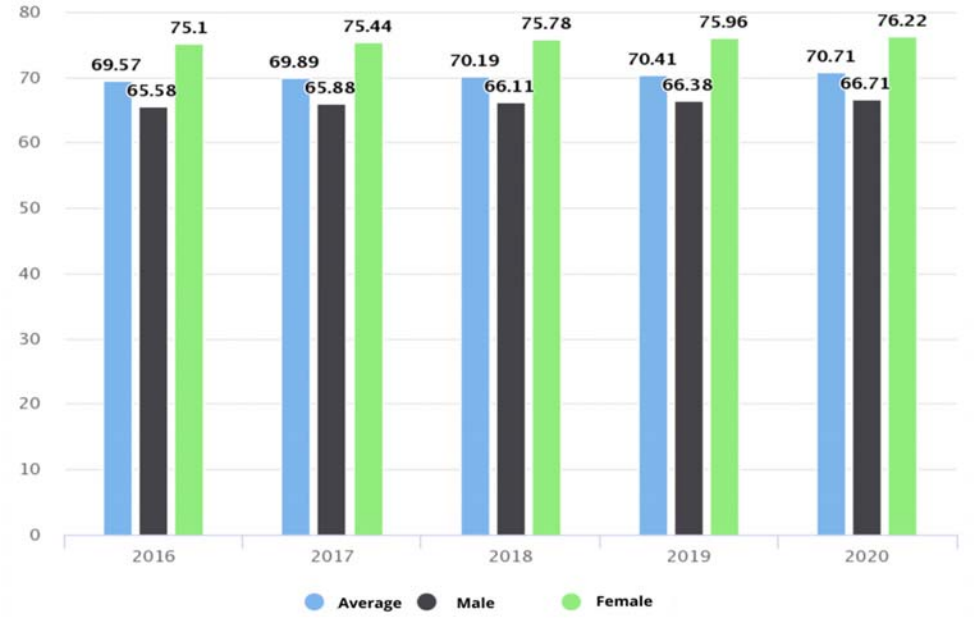


Figure 3-1-1 Average life expectancy at birth by sex and years

Due to a drop in births between 2001 and 2005, the population's age and gender narrowed to 10-19 years old in 2015. The population pyramid in 2045, when it was 40-49 years old, demonstrates this impact. However, due to an increase in births from 2010 to 2015, the base of the pyramid for zero to four year olds is wide in 2015. In general, according to the shape of the pyramid in 2045, the share of individuals who work will maintain its number. According to Mongolia's population prediction, the demographic burden will rise from 48.6 in 2015 to 64.9 in 2045, putting a greater strain on children and the elderly. Our government should take steps to accelerate economic development, generate more jobs, boost population income and livelihood, and promote population growth during the "Demographic Window."(*Renewed 2015-2045 population projection*, 2017)

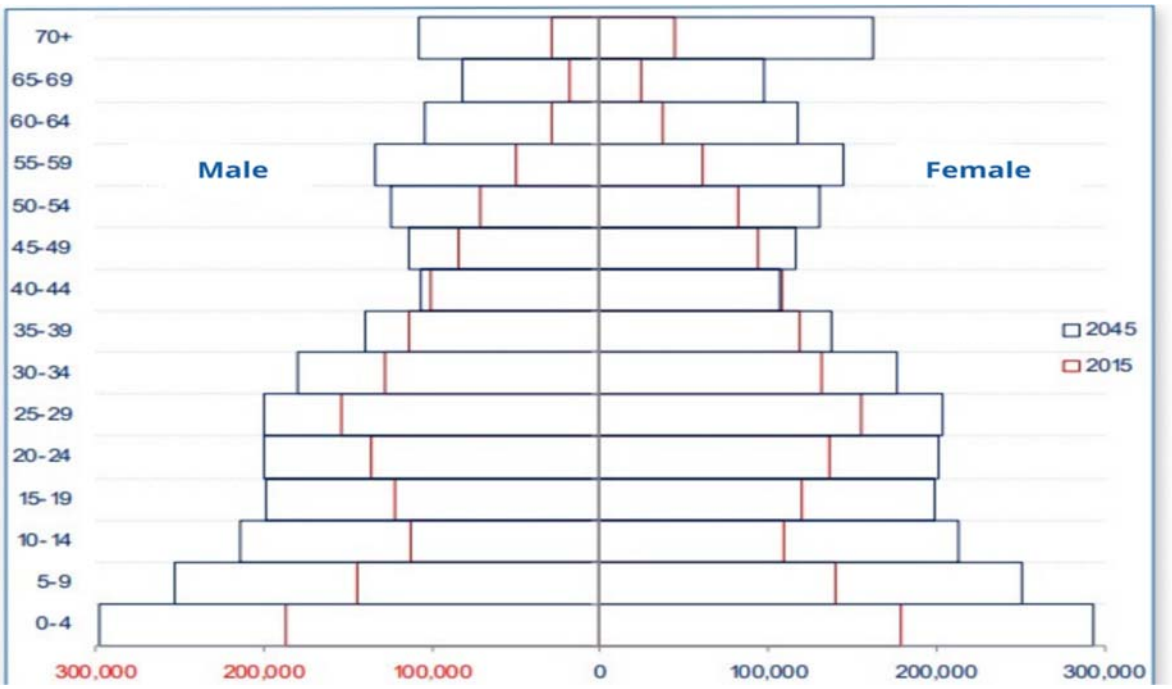


Figure 3-1-2 Population Pyramid 2015:2045

Source: NSC, 2017

3.2. Health care system

Since 1921, Mongolia has developed health care based on a Semashko health care system, the health system and infrastructure expanded throughout the country under the influence of the Soviet Union from 1941 to 1990. It was a centralized and hierarchical health system in which all health care services were subsidized by the government. With the collapse of communism and the democratization of Mongolia in the early 1990s, it became clear that the Semashko health system, which was funded from the state budget, could no longer sustain itself.(*Mongolia : health system review*, 2007)

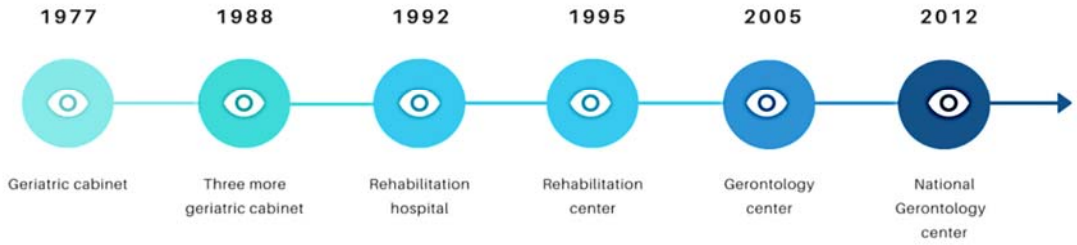
The state is responsible for health insurance for the elderly. A renewed Health Insurance Law was approved in 2015, defining the insured person's rights and obligations, the amount of health insurance premiums, include target population in detail covered by health insurance, the introduction of a new electronic health insurance card, and health care from the health insurance fund. As a result, the insured has the right to reimbursement from the health insurance fund of 1800.0 thousand tugrugs a year, and if the insured exceeds this limit, his / her expenses can be reimbursed once a year with the consent of another insured family member. This is vital in order to improve health care for the insured, particularly the elderly (NHRC,2015)

Also included is a list of medical equipment and prosthesis for rehabilitation that are required for some high-cost treatments and services that will be paid by the Health Insurance Fund, along with their reference prices. According to the Order No. 245/161/88 of 2015 of the Minister of Health and Sports, the Minister of Finance and the Minister of Population Development and Social Welfare, 84 types of expensive medical devices can be discounted. For example, the health insurance fund will pay MNT 5,000.0 million for knee replacement surgery.

3.3. Gerontology and Geriatrics

Mongolia's National Gerontology Center is the most conspicuous agency dealing with aging issues. In 1977, the center began as an elderly-only cabinet. The Gerontology Center, under the Ministry of Health, was newly founded in Mongolia on September 29, 2005, to address ageing, the well-being of older people, and geriatric health issues. Mongolia's Minister of Health issued order No. 226 in 2012 approving the current organizational structure and human resource. The National Center for Gerontology comprises four primary divisions with a total of 52 employees: Quality and Monitoring and Evaluation, Strategic Planning, Medical Care, and Research and Training.

Figure 3-3-1 National Gerontology center, its structure changes and years



Source: Brief history of National Gerontology center book

The center provides free outpatient care and health promoting activities to the elderly and offers professional consulting and training in the field of geriatrics for health organizations in different level. An ambulatory health service of National Gerontology is increasing every year. The overall number of consumers receiving outpatient health care increased from 11466 in 2012

to 23332 in 2015, out of a total of 62356. In 2019, a total of 23,615 customers received health care service, including 18,794 outpatient exams, 4,583 preventative exams, and 245 home visits.

In 1956-1959, the hospital building was constructed as a children's outpatient clinic. The center provides its service, the facility has 16 rooms on the first floor of the building. The Ministry of Health has been requested to construct a new hospital building since 2007.

By 2019, 24 specialized geriatric doctors and 28 nurses have been trained in Mongolia. This represents 49 percent of the entire number of necessary geriatric physicians and 28.4% of the total number of required geriatric nurses.

Table 1. Required resources for new hospital

№	Need of resources	Required investment ($)
1	Investment in a new building	5723696
2	Expenses of diagnostic equipment	4055694
3	Surgery, anesthesia and intensive care equipment	2058218
4	Clinical laboratory equipment	683940
5	Rehabilitation treatment equipment	138800
6	Office equipment	542511
7	Aging research center equipment	145500
8	Kitchen equipment	35031
9	Car and vans	750000
10	Human resource training in abroad	247840
Total resources expenses		14381230 $

However, due to the inadequate physical environment, human resources and budget constraint they face unmet needs of healthcare service for the elderly.

3.4. Long-term care

In Mongolia, long-term care for the elderly and disabled is weak, as most long-term care is provided unofficially within the family. (Mongolia: Health system review, 2007)

3.5. Policy framework

The Government of Mongolia has implemented the “National Strategy for Population Aging in Mongolia” from 2009 and “National program on Healthy Aging and Health of older people” from 2013. These policies aim at improving the quality of life of older persons, supporting healthy aging, providing health care for the stable condition and social welfare, and to increase the involvement of society and public. Though the these programs have been trying to provide accessible, effective health and social care services for older adults, consistent with programs and strategy, they still face difficulties implementing and providing social and health care services in a proper manner. As people age, they are more likely to experience comorbidities, disability and frailty. This reality places pressure on healthcare systems to change their current approach which is high cost, bed-based treatment to care that is proactive, preventive and based on in-home care service as well as focusing on their wellbeing and rehabilitation regarding diseases. Empirical evidence shows that older persons coming out of acute care hospitals without appropriate intermediate care for recovery can experience significantly lower clinical outcomes within 12 months.(Young, 2009)

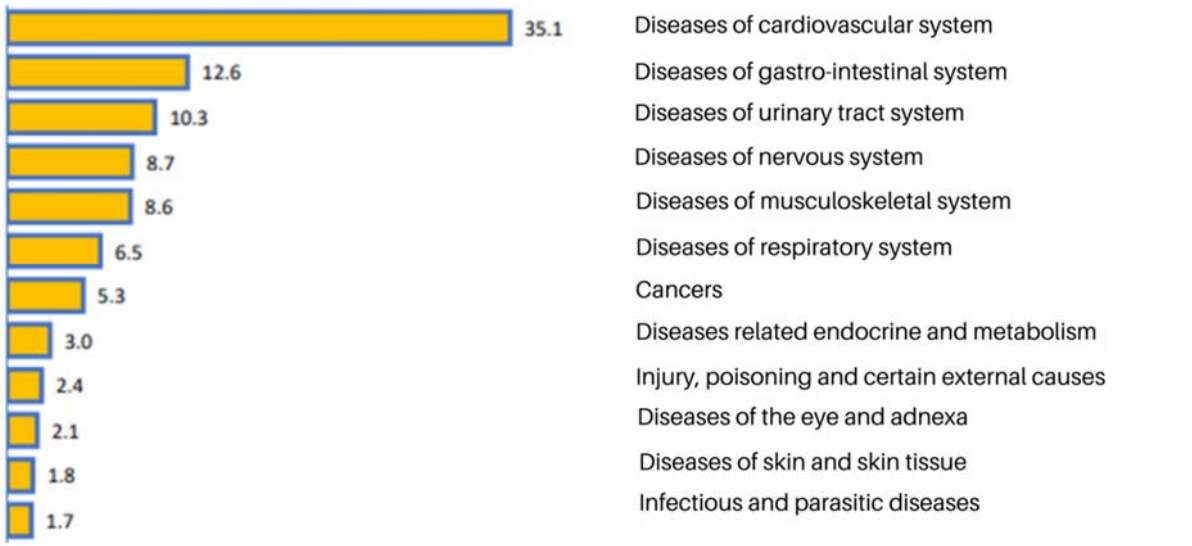
4. PRACTICE AND ANALYSIS

4.1. Health status of the elderly

According to data from Health indicators report, the total number of older persons who had outpatient examinations in 2017 was 3.1 million (in repeated numbers). Of the total number of outpatients examined, 38.7 percent were men and 61.3 percent were women. In terms of age groups, 34.6 percent are between the ages of 55 and 59, 27.8 percent are between the ages of 60 and 64, and 37.6 percent are 65 and over.

According to Ministry of Health information, 35.1 percent of the hospitalized elderly were admitted due to the cardiovascular diseases, 12.6% for gastrointestinal diseases, 10.3% for urinary tract system diseases, and 8.7% for neurological problems. In 2017, nine thousand elderly persons (women over 55 and men over 60) died. Cancer and cardiovascular diseases were the leading causes of death, accounting for 78.3 percent of those who died.

Figure 0-1 Leading diseases of hospitalization among elderly, 2017



Source: Ministry of Health

4.2. Policies related to population

This section examines applicable official documents, legislation, elderly health statistics, contracts, and news.

It has been 7 years since the approval of the National program on Healthy Ageing and Health of Older Persons. As the Government agency in charge of implementing the program, the National Gerontology Center has had a number of major difficulties. Firstly, the budget for the implementation of the program was approved as 15.651 million MNT (6.6 million USD).

However, the government has not allocated any money to funding the program at all for the past years. This means that decision-makers still not fully realized the health problems among elderly Mongolians and not showing strong commitment to solve problems. It has made a majority of the goals in the National program unable to be reached or carried out to satisfactory results.

Secondly, the National program includes some goals and its measurement indicators which require cooperation among stakeholders. However, according to the 2015 mid-term evaluation, challenges with the program's implementation include difficulty formulating a subprogram in regions, insufficient money, and a lack of cooperation amongst government sectors (B.Enkhzul, 2015).

Table 4-2-1 Indicators and targets of National program on healthy ageing and health of older persons

	Indicators	Baseline	Target for the year 2017
Goal 1. Frame the legal, social, and economically friendly environment to support healthy ageing for the population			
1	Number of age-friendly entities, khoroo, bagh, soum and district	None	Support to be an age-friendly organizations, business entities, khoroo, bagh, soum and district
2	Health promotion activities held regularly at office, business entities for their staff	Varying	Healthy and age-friendly workplaces shall be created at at office, business entities; health promotion activities held regularly
Goal 2. Promote health of older persons and prevent from the diseases			
1	Percentage of older persons who are vulnerable to malnutrition	31 percent	Decrease by up to 20 percent
2	Percentage of older persons who are suffering malnutrition	3.1 percent	Decrease by up to 30 percent

3	Percentage of older persons who are obese and sedentary	17.4 percent	Decrease by up to 30 percent
4	Percentage of older persons who are declined in cognitive skills	16.1 percent	Decrease by up to 20 percent
Goal 3. Increase participation of older persons in development, protection and social life			
1	Employment rate of the older persons	8.3 percent	Increase by up to 15 percent
2	Training program for pre-retirement age people and older persons	None	3 programs
3	Training institute for the retired (Third age Institute)	None	1
Goal 4. Expand complex healthcare service adjusting to requirements and needs of older persons			
1	Number of specialists in gerontology and geriatrics	6 specialized geriatricians are working.	15 specialized geriatricians
		No specialized nurse in geriatrics is currently working at the Secondary level of health care service	50 percent of nurses who currently working at the Secondary level of health care service to be specialized
		Percentage of nurses working at primary level of health care participated in refresher trainings of geriatric nursing: 0.2 percent	Increase by up to 10 percent
2	Number of units offering geriatric service in health sector	1 center and 16 cabinets	1 center and more than 21 cabinets
3	Number of older persons who receive homecare service	1.4 percent	Increase by up to 20 percent

Source: National Program on Healthy ageing and health older persons

Elderly health and care service is not only issue of National Gerontology center, but it needs more complex and coordinated cooperation among hospitals and line Ministries and agencies. According to the evaluation report in 2020, the majority of efforts aimed at improving the health of older people and preventing disease have taken the shape of training and promotion activities. Little is being done to establish and implement subprograms in local provinces to support the primary purpose of this program, which is to frame a legal, social, and economic framework that supports healthy aging for the population. The majority of actions for the second goal, which is promoting the health of older people and preventing disease, have taken the shape of training and promotion activities. The implementation of this program was unknown, and datas are unavailable in several aimags such as Gobi-Altai, Dornogovi, Orkhon, Umnugovi, Selenge, and Khentii.

Table 4-1-1 Evaluation of National program on healthy ageing and health of older persons. by provinces,

No	Provinces	Average percent	Goal 1	Goal 2	Goal 3	Goal 4
		83.6%	84.1%	86.4%	81.8%	80.8%
1	Arkhangai	86.4%	86.7%	87%	81%	91%
2	Bayankhongor	92.5%	100%	100%	100%	70%
3	Bayan-Ulgii	70%	70%	70%	70%	70%
4	Bulgan	92%	91%	91%	94%	92%
5	Govi-Altai	-	-	-	-	-
6	Govi-Sumber	85%	100%	70%	100%	70%
7	Darkhan-Uul	46.2%	42%	48 %	45 %	50%
8	Dornogovi	-	-	-	-	-
9	Dornod	92.5%	100%	100%	70%	100%
10	Dundgovi	97.5%	90%	100%	90%	90%
11	Zavkhan	92.5%	100%	100%	100%	70%
12	Orkhon	-	-	-	-	-
13	Uvurkhangai	70.8%	65.8%	79	62.4%	76%
14	Umnugovi	-	-	-	-	-
15	Sukhbaatar	90.2%	96%	95%	80%	90%
16	Selenge	-	-	-	-	-
17	Tuv	80.8%	72.4%	80.8%	87.5%	82.9%

18	Uvs	85%	85%	85%	85%	85%
19	Khuvsgul	91.3%	92.5%	100%	93%	80%
20	Khentii	-	-	-	-	-
21	Khovd	72.5%	70%	70%	70%	80%
22	Ulaanbaatar (National Gerontology center)	94%	100%	90%	100%	85%

Sources: Ministry of Health, 2020

4.3. Aging and health interventions

Early 2005, there was limited data available about elderly health issues in Mongolia, however it was clear that health service for older people were often inaccessible, especially older people who live in poverty, lack income security and have limited activities of daily living. National Gerontology center started doing research on health of elderly since its establishment. According to results of the research, 85.6 percent of older people in Mongolia have 2-3 chronic conditions and hospitals often turn older patients with chronic illnesses away due to their being unable to provide proper treatment. Since population of Mongolia is sparsely distributed and many of elderly are living in rural and remote areas in city and it was challenging to deliver healthcare service for them. At that time, National Gerontology center had limited numbers specialized professionals in geriatric service and it initiated to cooperate with primary centers across the country. All primary health centers in Mongolia have updated data on their population within their relevant regions including health status of elderly. They have 5 categories in health of status of elderly; I – Very healthy, II – Relatively Healthy, III- Moderately ill, IV- chronic ill and V- bed-ridden and very ill. The health demands of the elderly differ depending on their health status in various categories.

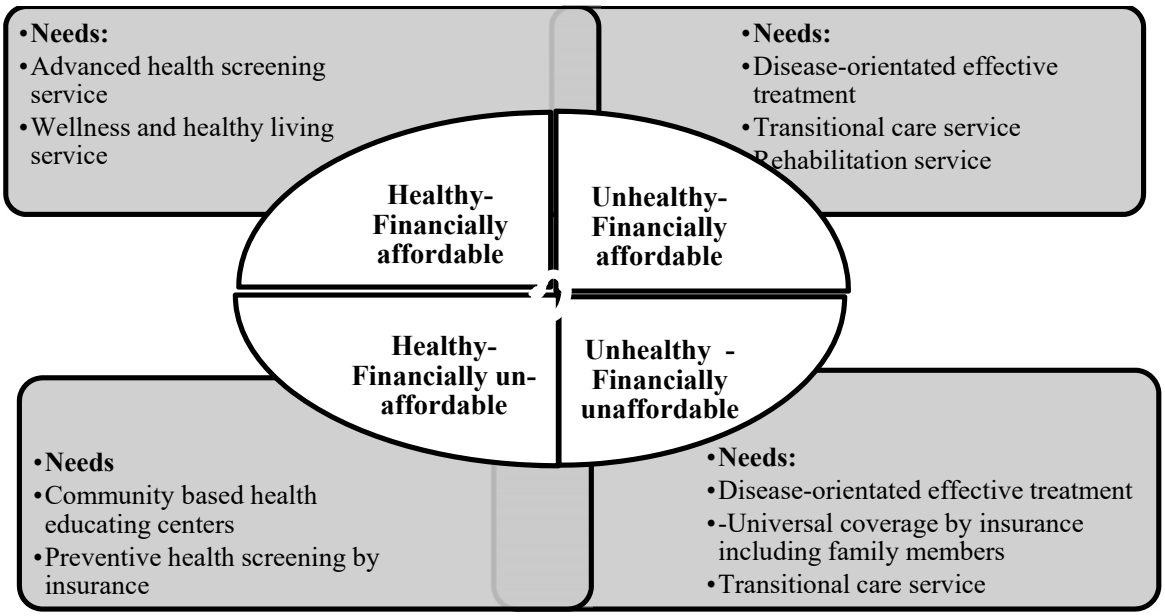
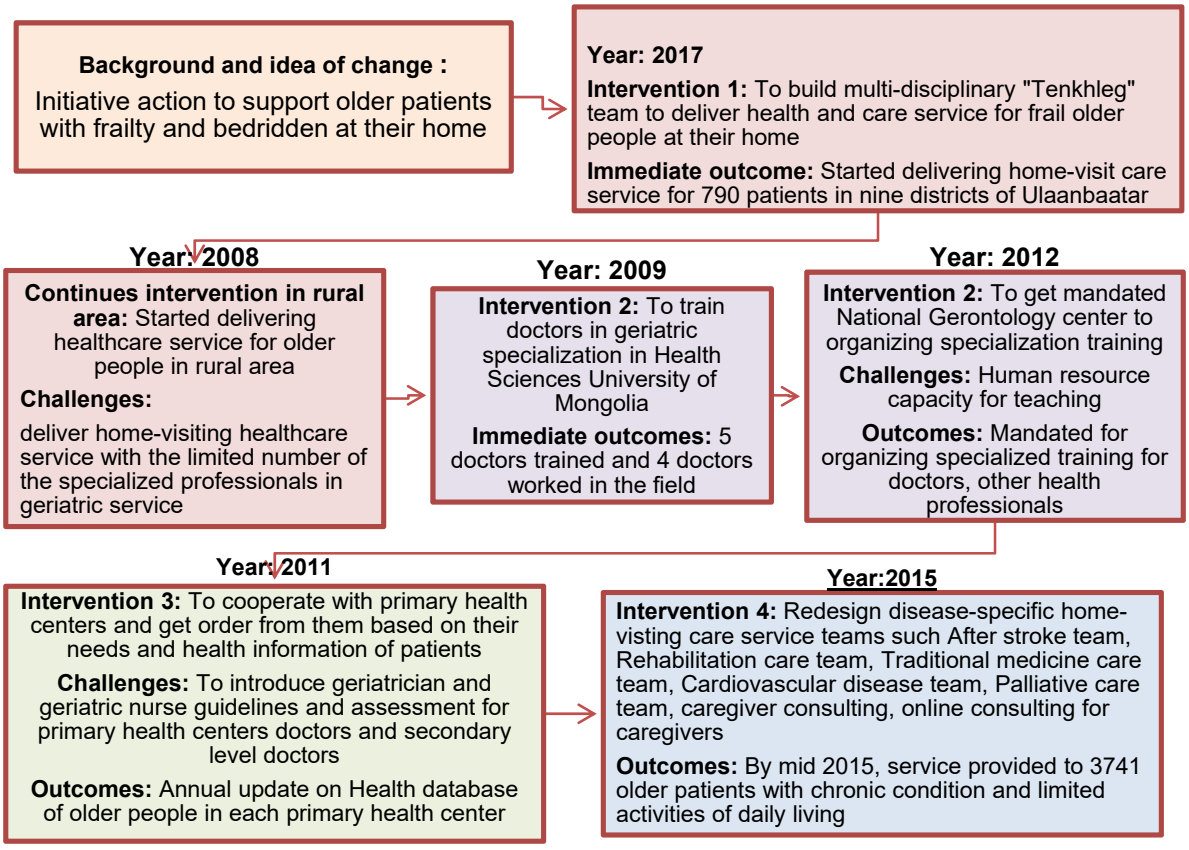


Figure 4-3-1 STP Analysis of the elderly Population

In 2007, the National Gerontology Center, in collaboration with primary health centers, introduced a multidisciplinary home visiting healthcare service for the aged with health status IV and V. The first year of the service, it has delivered home visiting service for 790 elderly in urban area especially in remote areas of Ulaanbaatar. The following year in 2008, they reached about 530 older patients in the rural and remote, areas such as Tsagaan-Uul soum in Khuvsgul, Choibalsan soum in Dornod, Bulgan soum in Umnugovi and Bayan-Ulgii which is the westernmost and only Muslim province. It became the successful initiative in bringing closer the health service for the rural and nomadic elderly. The geriatric nurse or nurse in primary health center might re-visit or re-connect with the patient to support independence, personal care and strengthen their physical and emotional well-being. To get better results in the most efficient way, doctors, nurses and social workers would hold a team meeting to discuss patient condition and further actions to connect with regional health centers. However, this multi-disciplinary home

visiting healthcare service was very much on the ground-activity and it required more specialized health professionals in geriatrics.

Figure 4-3-1 Successful initiative action of Multi-disciplinary home-service for the elderly, Mongolia



In 2009, with the support of WHO, five more doctors graduated from geriatric specialization 4 training from Health Sciences University of Mongolia – three of the graduates worked in the district level hospitals in Ulaanbaatar and one doctor started working in the National Gerontology center. In 2010, they prepared four doctors from provinces such as Orkhon, Khentii, Khuvsgul and Dornogovi. But this specialized training for doctors was stopped with

WHO assistance between 2010- 2012. National Gerontology center was organizing only short-time training for the doctors and health professionals nationwide. It was also an efficient way to attract more health professionals and doctors into the Gerontology and Geriatrics. More doctors became interested in specializing in geriatrics and many nurses started to become geriatric nurses.

Without increasing the numbers of specialists in geriatrics and offering assistance and guidance in implementation of this service with physicians in primary and secondary level hospitals - multi-disciplinary home visiting service as we know it could not exist. Perhaps the most important action they took at the time, was to be mandated National Gerontology center for organizing specialized trainings starting from 2012. The National Gerontology Center made part-time agreements with professors from the Health Sciences University of Mongolia.

By 2015, multi-disciplinary team consists of geriatricians, traditional medicine doctors, rehabilitation doctors, cardiovascular doctors, palliative care doctors, nutritionists, physical therapists, geriatric nurses, pharmacists and social workers. The team aims to deliver complex health and care service for poor, frail and bedridden elderly people who do not have access to healthcare services. They created disease-specific and need-based teams such after stroke, frailty, palliative care, cardiovascular team, traditional medicine team, polypharmacy team, caregiver support team and even personal care service by physicians and health professionals of different discipline. For example, early in the morning, a physical therapist she might run an exercise program tailored to the special needs of patient such as giving occupational therapy for after stroke rehabilitation to improve mobilization for bed-ridden elderly and physical therapy for patients with osteoarthritis or back pain. Over lunch, she might hold a roundtable discussion on physical or occupational therapy and answer physical activity related questions from the team members. A social worker might be responsible for enhancing communications among team

members and patients. As part of this undertaking, the social worker creates health documents of patients in the field and makes presentations to their members. The social worker also addresses the caregivers on the subject of social needs, family support and personal hygiene care. The team distributes brochures to the caregivers and primary health centers to reinforce the recommendations and messages by team members. While 98.9 percent of elderly who received multi-disciplinary healthcare service from 2007 to 2015, want to receive of specific home-delivery service more often. Social workers provide the continuum of care, such as next arrangement of the specific care and try to connect residential social workers to solve social needs such as eyeglasses, stick and headphones for specific impairments.

Yet there are still low levels of health care services for elderly at the professional level. In National Gerontology about 22% of the total elderly receiving health care each year. The number of specialists, as well as the quality and availability of care, such as proper diagnosis, offering various types of treatment, enough spaces and rooms must be expanded.

Table 4-3-2. Comparison of current situation and required resources for new hospital

№	Нэр		Current situation	After implementation
1	Hospital construction site in m2		513 м2	13000 м2
2	Capacity and resources	Resources	52	282
		Health care	70,000 people per year / in duplicate /	150000 people per year /давхардсан тоогоор/
		Health education training	1500 elderly	7000 elderly
		Research	Socio-gerontological research	-Socio-gerontological -Biogerontological research
		Training for geriatricians and geriatric nurses	3-5 doctors and nurses per year	Training 10-12 geriatric doctors and nurses per year
3	Equipment	Daignostic equipments	• Abdominal ultrasound • Ultrasound of the heart • Densitometer	Additional: • X-ray • Joint ultrasound

			• Electrocardiogram • Cerebrovascular Doppler • Electroencephalography • Holter monitoring test • Eye tonometer	• CT • MRI • Gastric endoscope • Hearing test • Muscle recording • Duplex
		Clinical laboratory	-	• Biochemical • Urine • Immunology • Bacteriological
		Rehabilitation treatmnet equipment	• Electrical therapy • Thermal treatment • Physiotherapy • Occupational therapy	Additional: Language therapy
4	Cars		Car -1 Van -1 (capacity: 8 persons)	Additional: Ambulance-3 Bus with 24 seats-3

Source: Ministry of Health, New hospital project for National Gerontology center, 2019

5. CONCLUSION

Multi-disciplinary home visiting elderly care service was a good initiative and still continues to deliver its service. However, health care setting based health services for the aging population necessitates taking into account all aspects of health and care, from services for relatively healthy elderly people with stable and long-term conditions, to those with some frailty and co-morbidities, to good hospital service and care with a discharge plan, to good rehabilitation care and high-quality nursing care.

For the policy implementation, insufficient funds and a lack of cross-sector cooperation were the main obstacles. To improve the program's implementation, it is necessary to define the funding, strengthen cross-sector cooperation, and give regular executive supervision in local

subprograms. Responses related to health of elderly are frequently disconnected, focusing on one extreme or the other of the spectrum.

6. RECOMMENDATION

Health services need re-orientation due to the growing numbers of elderly people and the needs of health. It is necessary to considering the resources to satisfy the needs and its implementation regarding the needs and resources available.

Nationwide, health workers may have little training in how to deal with diseases common in older age. This highlights the necessity for increasing geriatric specialized physicians and nurses to work at the professional level.

There are also needs the early diagnosis and management of conditions, such as high blood pressure, which is a key risk factor of heart disease and stroke in older people in the given context of Mongolia. As people get old, they are more likely to have co-morbidities, disability and frailty. These situations put pressure on healthcare system to change their current approach which is high cost, bed-based treatment to care that is proactive, preventive and based on home closer care service as well as focusing on their wellbeing and rehabilitation regarding to the diseases. The health demands of the elderly differ depending on their health status in various categories. It is important that health care for the elderly is tailored to their specific need and their living condition.

1. Healthy, financially affordable elderly population:

- Healthy and active ageing elderly can be interpreted as successful public health actions in the nation. Considering the contributions of older people in the community, many older people have significant roles in contribution of raising next generations and active

member of society. Effective intervention to improve older people's quality of life is engaging them in the community. Promoting new ways in elderly health and social service are important steps to mobilize in this group.

2. Healthy, financially un-affordable elderly population:

- Those elderly people need to protected from the economic consequences of having to pay for medical treatments.

3. Unhealthy, financially affordable elderly population:

- This also means it is essential to improve the detection and early identification of diseases that are the leading causes of death, especially cancer, cerebrovascular diseases, heart diseases, chronic respiratory diseases, and mental diseases such as dementia, Alzheimer's disease and Parkinson' disease in order to minimize dependency.
- Availability of home-based healthcare service and preventive health education service is still limited in the community of elderly in Mongolia. This requires a change of health systems towards to the community based integration care service which can involve internationally recognized concept such as "aging in place" and supporting independence of older people.

4. Unhealthy, financially un-affordable elderly population:

- Access to health services should also be improved by providing universal coverage for those living in poor conditions and free nursing facilities should be established by regions. Due to its lack of hospice facilities, unaffordable hospital care and lack of community support these vulnerable groups are still suffering with their health conditions.

REFERENCE

Barton P, Bryan S, Glasby J, Hewitt G, Jagger C, Kaambwa B, Martin G,Nancarrow S, Parker H, Parker S, Regen E, Wilson A (2006). A national evaluation of the costs and outcomes of

intermediate care for older people. Birmingham:Health Services Management Centre,University of Birmingham/Leicester Nuffield Research Unit, University of Leicester. Available at: http://www.birmingham.ac.uk/Documents/college-social-sciences/social-policy/HSMC/research/intermediate-care-older-people.pdf

China Country Assessment report on ageing and health, WHO, (2015). Retrieved from http://apps.who.int/iris/bitstream/10665/194271/1/9789241509312_eng.pdf

Law of Mongolia on the Elderly

Law of Mongolia on Social Security of the Elderly (2005).

National Strategy on Population Ageing of Mongolia. (2009).

National Program on Healthy Ageing and health of Older Persons. (2013).

Meng, Q., Yang, H., Chen, W., Sun, Q., & Liu, X. (2015). People's Republic of China Health System Review. *Health Systems in Transition*, *5*(7), 16. Retrieved from http://www.wpro.who.int/asia_pacific_observatory/hits/series/china_health_systems_review.pdf%0Ahttp://www.wpro.who.int/asia_pacific_observatory/en/

Mongolia : Health System Review (2007). Available at: https://apps.who.int/iris/handle/10665/107845

Ming-Hsien Lin, Ming-Yueh Chou, Chih-Kuang Liang, Li-Ning Peng, Liang-Kung Chen Population aging and its impacts: Strategies of the health-care system in Taipei Available at: http://www.sciencedirect.com/science/article/pii/S15681637100005

Oliver D. (2014). *Making our health and care systems fit for an ageing population*, Kings Fund https://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/making-health-care-systems-fit-ageing-population-oliver-foot-humphries-mar14.pdf

Phillips, D.R. & Feng, Zhixin. (2015). Challenges for the Aging Family in the People's Republic of China. *Canadian Journal on Aging*, 34(3), pp. 290-304.

Population Training and Research Centre (2012) Implications of Demographic Trends for Socioeconomic Development and Public Policy in Mongolia

Renewed 2015-2045 Population Projection, National Statistical Committee. (2017).

Research report on Issues of social protection and human rights of the elderly, National Human Rights Commission of Mongolia. (2017).

Renewed law of Mongolia on the Elderly (2017).

Resolution of the Prime Minister №209 (2005). Mongolia

Resolution №130 (1998) Program on Health and Social Protection of the Elderly, Mongolia

State policy of Mongolia on Population Development (2004)

Shu-Ti Chiou, Liang-Kung Chen Towards age-friendly hospitals and health services (2009) Available at: http://www.sciencedirect.com/science/article/pii/S0167494309700044

Wang H. et.al. (2014). *Epidemiology of multi-morbidity in China and implications for the healthcare system: cross-sectional survey of community household residents in southern China.* Retrieved from https://bmcmedicine.biomedcentral.com/articles/10.1186/s12916-014-0188-0

World Health Organization, (2015). World Report on Ageing and Health. Retrieved from http://www.who.int/ageing/events/world-report-2015-launch/en/

Young, J. (2009). The development of intermediate care services in England. *Archives of Gerontology and Geriatrics*, *49*(SUPPL.2), S21–S25. https://doi.org/10.1016/S0167-4943(09)70008-1

Zhang T. & Chen Y. (2006). *Meeting the needs of elderly people in China* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1550456/

Zeng Yi & George, L. (1999). *Extremely rapid ageing and the living arrangement of older persons, the case of China, 1991*. Retrieved from http://www.un.org/esa/population/pubsarchive/untech/pdf/untech8.pdf

Websites:

K-Developedia of Republic of Korea https://www.kdevelopedia.org/

Global Age Watch Index https://www.helpage.org/global-agewatch/

Integrated Legal Information Database of Mongolia https://www.legalinfo.mn/

National Gerontology center https://www.gerontology.mohs.gov.mn/

National Human Rights Commission of Mongolia https://nhrcm.gov.mn/

National statistical committee. https://www.1212.mn/