

Received 2015-02-22

Revised 2015-07-23

Accepted 2015-11-12

## A Review of the Iran's Elderly Status According to the Census Records

Pouya Farokhnezhad Afshar<sup>1</sup>, Parvaneh Asgari<sup>2</sup>, Mahmoud Shiri<sup>3</sup>, Fatemeh Bahramnezhad<sup>4</sup>✉<sup>1</sup> Gerontology Department, Nursing and Midwifery Faculty, University of Social Welfare and Rehabilitation, Tehran, Iran<sup>2</sup> Nursing and Midwifery Faculty, Arak University of Medical Sciences, Arak, Iran<sup>3</sup> Electronic engineering, Islamic Azad University Iranshahr Branch, Iranshahr, Iran<sup>4</sup> School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran

---

### Abstract

For many reasons, the elderly population in Iran is considered a growing phenomenon. An accelerated decline in birth rate in the past two decades, medical-health advances, and increased life expectancy are among the major reasons. Based on the definitions of the Country's Population Index, Iran's elderly population, with a growth rate of 3.9% compared to the total population growth (2.29%) between 2007 and 2012 has reached to the elderly population of 8.26% in 2012, which puts Iran among countries with aging populations. Now, Iran's elderly population is 6205998 people, including approximately 48.70% aged men and 51.30% aged women. Iran, based on the age criteria of the population structure, is now faced with the aging phenomenon, and since this phenomenon encompasses health, economic and social consequences, as well as service requirements, elderly population of Iran should be comprehensively and continuously evaluated so that the health and medical officials could deal with the incident with proper planning and meet the needs of this group of the society. [GMJ.2016;5(1):1-6]

**Keywords:** Elderly Status; Gerontology; Iran

---

### Introduction

Aging is a permanent process in human life and can be investigated in terms of different physical, psychological and social aspects [1]. In the past, few individuals per population reached the aging times, yet in the modern life, with the fast technological advancements, people experience longer lives. Now, rapid population growth, particularly in the elderly population, has been one of the most important issues raised in public, political and scientific communities in most of the Asian countries in the past half-century. The world's elderly population in 1950 was 200

million, which increased nearly three times at the end of the last century and reached 590 million people. It is expected to be increased to 1100 million in 2025. In general, while the world's population continues to grow every year, 1.7% on average, the number of people aged 65 and older can be estimated as 2.5% [2]. Currently, like many other developing countries, Iran's population is experiencing fundamental and significant changes in its age structure following the constant fertility reduction and the increased life expectancy. These changes require important economic and social considerations regarding policy making and planning [3-4].

---

**GMJ**

©2015 Galen Medical Journal

Fax: +98 731 2227091

PO Box 7461686688

Email: info@gmj.ir



---

**✉ Correspondence to:**Fatemeh Bahramnezhad; BS, MS, PhD Candidate  
School of Nursing and Midwifery, Tehran University of  
Medical Sciences, Tehran, Iran  
Telephone Number: +989133974856  
E-mail: bahramnezhad@razi.tums.ac.ir

## Materials and Methods

The main data collection methods used in this study include searching the databases of Google Scholar, Pubmed, and SID, as well as Iran's statistical databases using the keywords "Iran's elderly population" and also Iran's census in 2012 and the related aging indices. In the analysis of the findings, the viewpoints of the experts on Iran's elderly population were used.

## Results

Aging has existed as a biological phenomenon in all historical periods. However, today, unlike the past periods, due to the advances in science and technology, applying new therapeutic methods, good nutrition, and health, the elderly not only benefit from the gift of prolonged life but also enjoy better life quality and conditions. However, the population aging will lead to the outbreak of new issues. For the same reason, the prediction of the future of the world economy suggests tensions and crises on the issue of social security and providing welfare, safety, and health of the worldwide elderly [5]. The advent of such a phenomenon has created serious responsibilities to deal with. Furthermore, such an issue has made the governments allocate the necessary funds to meet their needs [6]. Regarding ageing dimensions, The United Nations Population has divided the countries into three types of young, adult and elderly population structures whose interesting characteristic is the proportion of the elderly population in these countries. Therefore, the countries with a young population are countries with less

than 4% of seniors; the countries with adult population are countries in which the proportion of the aged is between four and six percent, and the countries with elderly population are countries in which the proportion of the elderly population is more than seven percent [7]. The Iranian age structure transition can be divided into three periods:

They out stage of the population: the time Period before 2002, The transition from youth to senescence (population aging): the period between 2002 and 2047 The full aging of the population: the period after 2047 [8]. Since the aging phenomenon encompasses health, economic and social consequences, as well as service requirements, the elderly population of Iran should be comprehensively and continuously evaluated so that the health and medical officials could deal with the incident with proper planning and meet the needs of this stratum of the society. This paper aims to evaluate various population aspects and indices with a focus on the elderly population. It should be noted that due to the combined data in Table Guides, the main sources are listed at the bottom of the tables. The mean and median of age and life expectancy increases in both of the indicators of age median and mean represent the changing age structure of the population and the rise in the elderly population. Over the past 45 years, the average age and the median age have increased as 8 and 10 years, respectively. Also, the increased life expectancy means the increasing number of elderly people in the country (Table 1).

The median and mean of age and life expectancy had an upward trend during 1967-2012. A drop in the median and mean of age occurred in the time span of 1977-1987, suggesting the

**Table1\***. The Country's Life Expectancy by Sex and Country Areas, 1976 to 2011

Explanation	Urban		Rural		Total	
	Male	Female	Male	Female	Male	Female
1976	60.4	63.8	56.4	54.0	57.6	57.4
1986	62.1	63.5	54.1	54.7	58.5	59.3
1996	-	-	-	-	67	69.8
2006	-	-	-	-	71.1	73.1
2011	-	-	-	-	72.1	74.6

\*Source: Statistical center of Iran (Statistical Centre of Iran 2012)

increased birth rate or the reduced proportion of the elderly population to the whole, and then, the upward trend continued.

Life expectancy has also had an increasing growth over the last years, and it can be observed that the life expectancy of women (74.6 years) is higher than that of men (72.1 years). The median age is a course in which a half of the population, regarding quantity and age, can be accessed. In terms of the young population in society, the median age is less than 20 years. In the midwife population, the median age is between 20 and 30. If the median age increases over 30 years, the society will face the population aging conditions [6].

#### *Aging Index*

One of the indicators associated with the growth of the elderly population is the aging index. The aging /geriatric index of the population refers to the number of people 60 years and older per 100 people less than 15 years old [9]. As it can be seen in Table 2, the senescence or aging index value of Iran's population had a constant trend during 1977-1987, and then gradually increased, and over the last five decades, it has risen from about 14 to more than 35 i.e. something more than double (Table 2).

The aging population growth was upward from 1967 to 2012, while the number of the population under 14 years old had an increasing trend from 1967 to 1997 and then reached

a relative stability. However, it should be noted that Iran is in the transition phase. This may lead to the fact that some indicators imply the aging of the population and some do not confirm it. However, the main point of this phenomenon is its need to be considered.

#### *The number and proportion of elderly*

According to the census figures in Table 3, based on the public census of population and Housing, the population of the country's seniors became nearly 4-fold during 1967-2011. In urban areas, the number of aged people reached from about 600,000 in 1967 to about 4.4 million people in 2011. In other words, over a period of 45 years, the elderly population has become approximately 7.4-fold.

During the same period, the number of elderly people in rural areas, with a slower increasing rate than the urban areas, reached from about one million in 1967 to about 1.8 million people in 2012, which represents a growing rate of 1.7 times higher. The elderly population in rural and urban areas shows that the ratio of the elderly in the rural areas is higher than in urban areas, despite the fact that life expectancy in rural areas is usually less than the urban areas. The main reason for the higher proportion of elderly in rural areas than in urban areas is the migration of the rural population to the urban areas and the migration of the young is far more than that of the elderly. Rural young people migration to the cities has

**Table2\***. The Aging Population in the Years 1966-2011

Year	Total Population (Million)	Population 60 years and over	Population 0-14	Aging Index
1966	25.7	1.6	11.6	13.8
1976	33.7	1.8	15	12.0
1986	49.4	2.7	22.5	12.0
1996	60.1	3.9	23.7	16.5
2006	70.4	5.1	17.7	28.8
2011	75.1	6.2	17.6	35.2

\*Source: Statistical center of Iran (Statistical Centre of Iran 2012)

led to the reduced youth population and the increasing proportion of elderly people in rural areas (Table3). Official estimates suggest that if the current trends continue, the country's elderly population will increase in the years 2007 to 2027 to about three times more, and reaches 15.5million people. Currently, 51.3% of the elderly are women, and 48.7% are men, but the ratio of the aged men at ages 70 to 89 years old is slightly higher than the aged women. The ratio becomes reversed at ages older than 90 (Statistical Centre of Iran, 2012). In 2006, the ratios were reversed compared to the current time, which represents the increase in the rate for women [10].According to the Population and Housing Census report from the Statistical Center of Iran, the highest percentage of the elderly population is seen in Provinces of Gilan (8.1%), Markazi (7.3%), South Khorasan (7.3%), East Azerbaijan (7.1%) and Hamadan (6.8%), while the lowest percentage of elderly population is found in Sistan and Baluchestan (3.2%), Hormozgan (3.9%) and Bushehr (3.9%) [8].It is expected given the population in the age range of 50 to 59 years old, in the next five years, the number of the elderly population reaches approximately 9 million, and in the next 10 years (2022) to around 12 million.

#### *Aging dependency ratio index*

The aging dependency ratio index refers to the number of people aged 65 years and older in each 100 people in the 15 to 64 years old

population [9]. Based on the census in 2011, the aging dependency ratio index has reached from 7.44% in 2007 to 8.06% in 2012, representing the increasing number of the elderly compared to the active population aged from 15 to 65 years [9].

#### *Marital status of the elderly*

Based on the data collected from the Census of Population and Housing of Statistical Center of Iran, between 1987 and 2007, the percentage of the elderly men with wife increased from 83.2% to 88.26%, and the percentage of married aged women with husband increased from 36.8% to 42%. In 2011, the figures for men and women reached 90.62% and 50.38%, respectively [11]. According to the census data from 1987 to 2011, the number of elderly men with a spouse was constantly more than aged women with a husband. On the other hand, the number of women without husbands was invariably more than the number of the men without wife due to death. This may indicate the reasons such as greater life expectancy in women, the non-identical age of marriage in the couples, more mortality rate in men and other factors [12].

#### *Pension and insurance status of the elderly*

According to the estimates in 2012, of 6,205,998 elderly in the country, 1926876 people receive their pension from the Social Security Retirement Fund and the State Re-

**Table3\***. Country in Terms of Population Aged 60 and Over in the Years 1966 to 2011

Explanation	Total population					
	1966	1976	1986	1996	2006	2011
Urban	598834	791126	1388361	2254211	3279937	4431083
Rural	1039198	979488	1297989	1723916	18441106	1774915
Total	1638022	1771614	2686350	2978127	5121043	6205998

\*Source: Statistical center of Iran (Statistical Centre of Iran 2012)

tirement Fund, which is equivalent to 31.4% of the aged people. Given that the ration in 2007 was about 25.72%, it had a growth rate of 5.32% [13].

#### *Status and type of disability*

The highest rate of disability of the elderly is seen in people aged over 75 years, and the least degree of disability is at ages 65 to 69 years. Most disabilities in aging years are related to foot cut or disability (82198 cases) and blindness (39269 cases), and the lowest rate of disability is related to speech and voice disorders (15487 cases) [14]. According to the Census of the Statistical Center of Iran in 2012, 201,220 seniors had, at least, one type of disability among which foot cut and defect and blindness were the leading causes of disability (Table 4).

#### **Discussion**

Population aging in Iran is occurring rapidly. Iran's elderly population with a growth rate of 3.9% during 2007 to 2012 reached 8.26% ,and according to the UN definition of the populations structure,Iran is among the aged countries. Also,of 8.26 % of the country's seniors in 2012 , 3.26% of them (8.26%) had,at least,one disability that reflects the greater needs of this group to medical-health attention.Given the number of people aged 50 to 59 years,the elderly population in Iran is

expected to reach about12million people in 2022. The Iranian elderly are facing many health and social problems,which implies the need for policies and thinking of appropriate solutions to meet their needs[14]. So far,the bulk of activities regarding the elderly has been mostly economic.It seems that cultural practices such as training the households in treating the elderly,developing recreational facilities,and using the seniors' experiences in social development programs should be desirably planned and managed[15]. Given the vulnerability of women to the problems of aging, paying particular attention to them before and after reaching the old age appears to be so crucial[16].

#### **Conclusion**

Conducting research on the aging phenomenon in association with culture and gender to identify the key and risky issues, providing evidence for effective strategies as well as providing recommendations is very essential. In the preparation of development plans, attending to the matters such as the followings is crucially needed: Productive aging, families and seniors, the market and the elderly, the income of the elderly, the elderly care and social services, health and nutrition in the elderly, access to comprehensive health services, the disabilities and mental health needs of the older people, the seniors housing and environment, the elderly, education, care and support for the elderly caregivers.

#### **Conflicts of Interest**

We have no conflict of interest to declare.

**Table4\***. Geriatric Conditions and Disability, According to the Census of 2011

<b>Year</b>	<b>The number of elderly</b>
2005	10432
2006	11904
2007	15375
2008	19245
2009	14687
2010	16187
2011	17648

\*Source: Statistical center of Iran (Statistical Centre of Iran 2012)

## References

1. Kamerani A. Memory and Cognition in Aging. Tehran University of Social Welfare and Rehabilitation. 2005; 1(2): 13-23 [Persian].
2. Tohidi M. Check the status of the elderly in Tehran. Tehran Sociologists. 2011 [Persian].
3. Moshfegh M, Mirzaei M. Transfer of age in Iran (age of the population and changes policy community-population). Journal population. 2010;71(72):1.
4. Asgari P, Bahramnezhad F, Mehrdad N, Noughabi AA, Hekmatpou D, Mahmoudi M. Depression, Functionality and Adaptability of Elderly Patients After Open Heart Surgery Off-or On-Pump. Jundishapur Journal of Chronic Disease Care. 2015;4(4): e30508.
5. Shojaei A, AkbariKamrani A. The health costs and diseases in Medical Services Insurance Organization, Tehran province. Salmand Iranian Journal of Ageing. 2007;6(4): 65-74 [Persian].
6. Shehkhani M. Sociology of Ageing. Tehran Harrir, 2008 [Persian].
7. Mirzaei M, Shams Ghahfarrokhi M. The elderly population in the censuses of 1956 to 2006. Iranian Journal of Ageing .2007 ;2(5): 123-9 [Persian].
8. Darabi R, Tarkashvand M. Socio-economic consequences of population aging. SocialSciences. 2012;1(58): 17-28 [Persian].
9. MirfalahNasiri S. Demographic characteristics of the aging population and related indicators in Iran. Iranian Journal of Official Statistics Studies. 2008;2(71): 20-31 [Persian].
10. ShiraziKhah M, Sahaf E. Study of Health and social indicators of elderly women in Iran. Salmand Iranian Journal of Ageing. 2012;6(23): 66-78 [Persian].
11. Data center strategy .Seniors in the mirror statistics Tehran: Ministry of Cooperatives. 2011. Retrived from: <http://www.amarkar.ir>. 14.2.2013/
12. Data Center strategy. Especially being a mirror statistics in Tehran: Centre for Co-operation and welfare statistics and labor market information. 2011. Retrieved from: <http://www.amarkar.ir/>, 4.5.2012.
13. Statistical Centre of Iran. Findings of the 2011 National Population and Housing Census Tehran: Statistical Center of Iran. 2012. Retrieved from: <http://www.amar.org.ir/Default.aspx?tabid=73&ProdID=8321>. 8.2013
14. Kiani S, Bayanzadeh M. The Iranian Population is Graying: Are we ready?. Iranian Medicine. 2010;13(4): 333-9 [Persian].
15. Abbasimoghadam MS, Dabiran S. A Comparative Study on Socio-economic variables amongst ederly people in Tehran. Payavard. 2008;1(2): 45-51 [Persian].
16. Shirazikhah M, Mousavi M. Consequence of changes in the elderly people population: elderly women in Iran. Life Science Journal. 2012;9(4): 869-77.