

Projection on Elderly Population in Bangladesh

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Abstract

In Bangladesh, persons aged 60 or above are considered to be elderly. There is no universally accepted definition of the elderly but, in most gerontological literature, people above 60 years of age are considered as 'old' and taken to be the 'elderly' segment of the population of a country. However, in the 20th century, the massive reduction in infant and childhood deaths due to infectious diseases is the primary driver of increased average life expectancy in the developing countries. The numerical growth of elderly persons is an eloquent testimony not only of reductions in fertility but also of reduction in infant and maternal mortality, improved nutrition, reduction in infectious and parasitic diseases, as well as improvement in healthcare, education and income. In Bangladesh, many older people spend their lives in poverty and ill health is the major risk for the elderly population. In view of the size of the population, scarcity of resources, existing poverty, insufficient health facilities and absence of social security, ageing is going to be a major problem in Bangladesh. Thus, there is an urgent need to know the future size of the elderly population in Bangladesh. Therefore, in view of the ever-increasing importance to elderly, this paper attempts to make projection on elderly population in Bangladesh. The family support to elderly people declined. From the population pyramid it is observed that there is rapid increase of population aged 65 years or more. Therefore, we may conclude that there will be fewer persons to look after the elderly population in future. This indicates that we must have more hospitals, demand for more family care in future. Thus, Government needs to consider how older can afford health care facility they need. The public and/or private sections may provide it.

Keywords: Projection, Elderly Population, Bangladesh.

Introduction

The term “projection” indicates that future population trends are unknown and that the figures quoted for future years are meant as indications of what the future population would be if certain likely rates of mortality, fertility and migration were to apply. Because of the uncertainty about future rates it is usual to prepare several projections on the basis of different sets of rates. It is

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possible to make fairly reliable short term estimate but because of changes, particularly in fertility and migration patterns, actual populations in the long term may depart quite widely from projections made. Population projections are useful for a variety of purposes, most commonly as a basis for planning. For example, assessing a nation's or region's needs for new jobs, teachers, schools, doctors, nurses, urban housing, and food requires knowledge of the number of people who will be requiring the services. Thus, population projections serve as the starting point for most projections of future need. Population projections are also important for policy dialogue. Since rapid population growth contributes to many of the major development problems, population projections are required to illustrate the future magnitude of the problems (Stover and Kirmeyer, 2005 [1]).

In Bangladesh, persons aged 60 or above are considered to be elderly. There is no universally accepted definition of the elderly but, in most gerontological literature, people above 60 years of age are considered as 'old' and taken to be the 'elderly' segment of the population of a country. Population ageing is defined as an increase in the proportion of population, which is elderly. The numerical growth of elderly persons is an eloquent testimony not only of reductions in fertility but also of reduction in infant and maternal mortality, improved nutrition, reduction in infectious and parasitic diseases, as well as improvement in healthcare, education and income. Aging of population is gradually emerging as an issue not separate from social integration, gender advancement, economic stability or poverty. Demographically, population ageing is a global phenomenon and Bangladesh is also not left untouched by this demographic reality (Rahman, 2010 [2]).

For the first time in human history the world has never seen as aged a population as recently exists in the globe. Today the older people are the world's fastest growing population group and among the wretched. A prediction has been revealed, by 2025 the world will have almost 800 million people over the age of 65, and that time Asian countries will experience majority portion of ageing people. During the first half of the 21st century that portion will reach one in five and in some countries one in three, the majority of whom are women and this figure is expected to rise unprecedentedly in the upcoming decades (Ali, 2013 [3]). Although, the percentage of the elderly population is increasing but, their participation in the labor force is decreasing. This may demand a sound economic security at

the later stage of life. Illiteracy, unhealthy physical condition, utmost economic dependence of the already poverty-stricken family makes the elderly susceptible to further neglect and abuse (Rahman, et al., 2010 [4]). In Bangladesh many older people spend their lives in poverty and ill health is the major risk for the elderly population. It is obvious that people become more and more susceptible to chronic diseases, physical disabilities and mental incapacities in their old age. As age advances, due to the deteriorating physiological conditions, the body becomes prone to illness. After a lifetime of deprivation, old age is likely to mean ill health, social isolation and poverty. Poverty and exclusion are the greatest threats to the well being of older people. This is especially true for older women, who suffer from multiple disadvantages resulting from biases to gender, widowhood and old age (Munsur, et al., 2010 [5]).

In Bangladesh, adult children, particularly sons, are considered to be the main source of security and economic support to their parents, particularly in the time of disaster, sickness and in old age (Cain, 1986 [6]). As an Asian country, Bangladesh has a long cultural and religious tradition of looking after the elderly and it is expected that families and communities will care for their own elderly members. But rapid socioeconomic and demographic transitions, mass poverty, changing social and religious values, influence of western culture, and other factors have broken down the traditional extended family and community care system. Most of the elderly people in Bangladesh suffer from some basic human problems, such as poor financial support, senile diseases, and absence of proper health and medicine facilities, exclusion and negligence, deprivation, and socioeconomic insecurity (Rahman, 2006 [7]). Islam and Nath, 2012 [8] in their study shows a future gloomy picture of the elderly support facility in terms of both economic and caring aspects.

The downturn of the economy throws the elderly population, particularly those who are from poor families into large scale social, health and economic insecurity. The elderly become mentally sick feeling unwanted by the society. They feel insecure due to lack of financial support either from the family or the state. In Bangladesh, elderly population has become an important social concern because, like many other developing countries, there is no social security system. In view of the size of the population, scarcity of resources, existing poverty, insufficient health facilities and absence of social security, ageing is going to be a major problem in

Bangladesh. Thus, there is an urgent need to know the future size of the elderly population in Bangladesh. Therefore, in view of the ever-increasing importance to elderly, this paper attempts to make projection on elderly population in Bangladesh.

Data and Methods

The necessary secondary data on population were collected from 2011 population census of Bangladesh by age and sex. This projection is based on component method. Fertility and mortality data is used for this projection, which were from BDHS and also used South Asian Model Life Table. Bangladesh is passing through fertility transition from medium to low in current years (decreased to 2.3 from 3.3 during last 10 years), to project Total Fertility Rate (TFR) it is assumed medium variant with $NRR=1$ by 2016 which corresponds to TFR 2.1 in 2016 ($NRR \approx 0.488 * TFR$) with a initial value 2.3 in 2011 (BDHS 2011 preliminary report). TFR for the interim periods has been determined by linear interpolation method and for the rest of the year linear extrapolation method. It is assumed the constant net migration rate (-1.57 for 2011) for both sex (CIA World Factbook). It considers the 100.03 as Sex ratio (BBS, 2011). Population projection on 2011 to 2070 has been performed with Spectrum software Version 5.31 considering 2011 as base year population.

Results and Discussion

Trend in Elderly Population

Figure 1 shows the total and elderly (aged 65 or more) population size in Bangladesh over the period 2011 to 2070. Figure 2 depicts that elderly population will be increasing from about 7 million to 46 million by the year 2070, whereas the total population was about 151 million in 2011 and will be about 188 million in 2070. Bangladesh start his journey with the population about 70 million and will be reached at about 190 million at the age of 100 years.

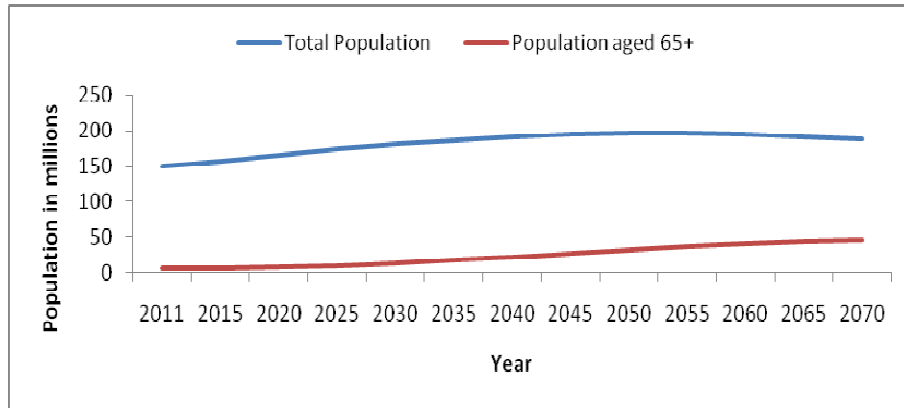


Figure 1. Trends in total and aged 65 and more Population in Bangladesh (2011-2070).

Percentage of the Elderly Population

Percentage of older persons among total population indicates the pace of ageing. The percentage of the elderly population is increasing with the advancement of time. The percentage of elderly population in Bangladesh increases gradually. In 2011, it was about 5 percent, whereas in the last year of projection it will be about 25 percent which indicates the percentage of the elderly population in 2070 might be about five times of the percentage in 2011.

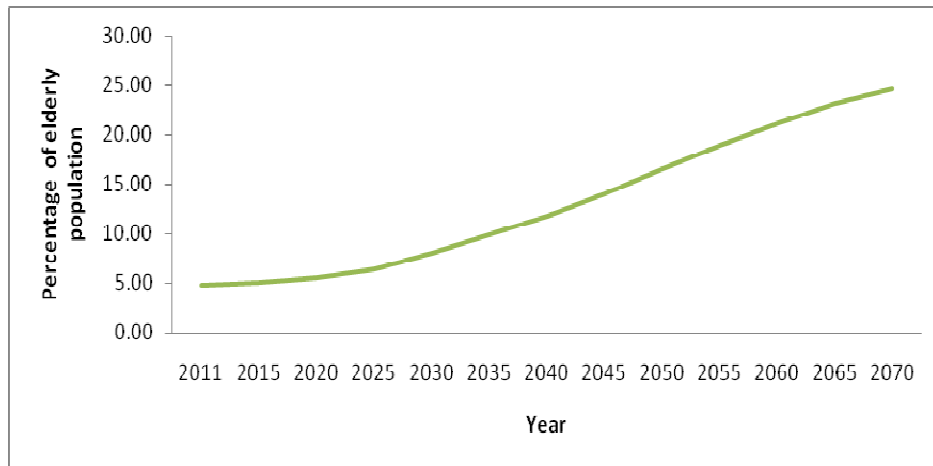


Figure 2. Percentage of the elderly population in Bangladesh (2011-2070).

Life Expectancy

Life expectancy is a statistical measure of how long a person may live, based on the year of their birth, their current age and other demographic factors including gender. At a given age, life expectancy is the average number of years that is likely to be lived by a group of individuals (of age x) exposed to the same mortality conditions until they die. Figure 3 shows the life expectancy at birth of both sexes in Bangladesh. In 2011, the life expectancy was 70.1 years where as in 2070 it will be reached at 80.5 years. In the 20th century, the massive reduction in infant and childhood deaths due to infectious diseases is the primary driver of increased average life expectancy in the developing countries like Bangladesh. Overall, life expectancy has increased due to several factors such as clean drinking water, universal sanitation, significantly improved nutrition, particularly during infancy and childhood, vaccination against most common epidemic diseases, access to high-quality trauma (accident and emergency) care, improved drugs (particularly, antibiotics), etc (Trims, 2014 [9]).

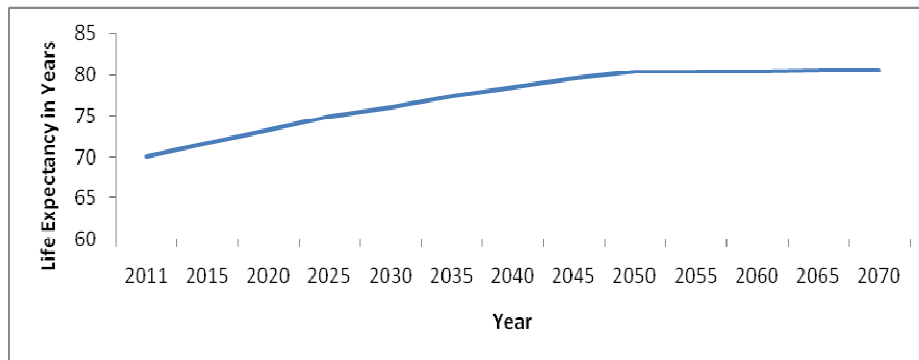


Figure 3. Life expectancy of both sexes in years in Bangladesh (2011-2070).

Median Age

Among many indicators of whether a population is ageing or not the median age, which divides the population into two equal parts, half older and half younger is perhaps the strongest one. One common measure of population ageing is the increase in the median age of its members (Gavrilov and Heuveline, 2003 [10]). The median age of the population in Bangladesh increases gradually. The median age was 25 years in 2011 whereas it will 45 years in the year 2070 (Figure 4).

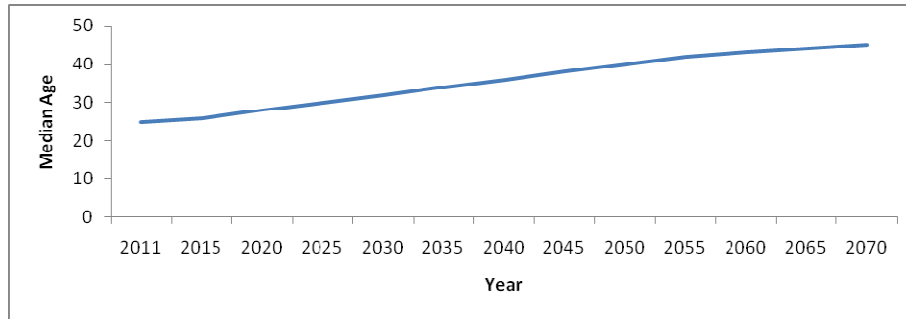


Figure 4. Median age in Bangladesh (2011-2070).

Age Structure of the Population

The population pyramid of 2011 shows that the younger population under 20 years of age dominated because of high fertility in the past. On the other hand, 2040 population pyramid shows decrease in the population under 20 years but increase in the population aged 20 to 50 years because of the high cohort fertility in the past and falling fertility in the recent years (Figure 5).

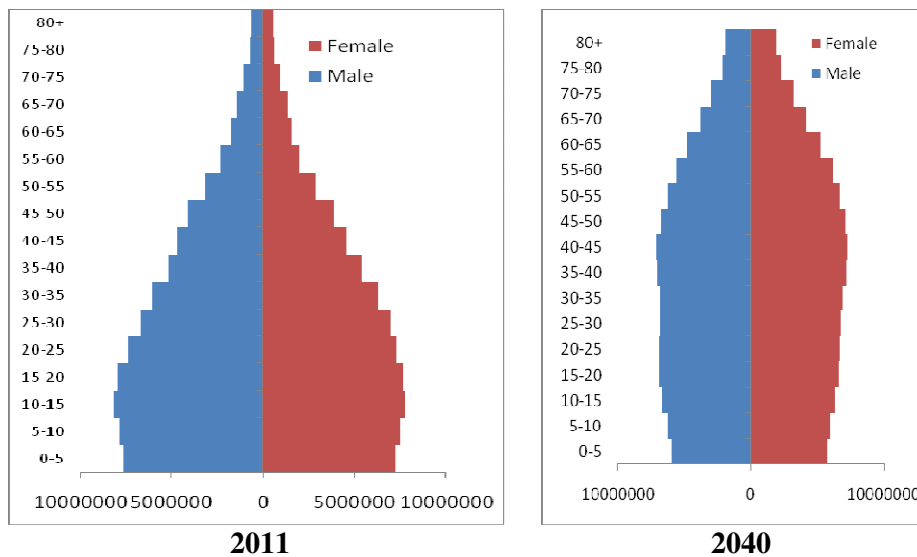


Figure 5. Population Pyramid of 2011 and 2040.

Figure 6 shows population pyramid for 2011 and 2070. From the two pyramids it is concluded that the structure of the two populations are quite

different. Also, populations between age 40 to 60 years are more than the population age 20 to 40. In addition, it is observed that there is rapid increase of population aged 65 years or more.

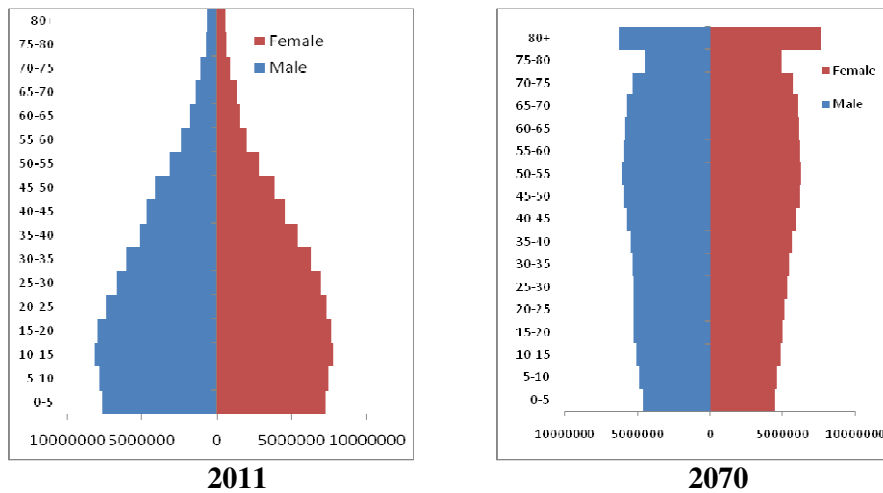


Figure 6. Population Pyramid 2011 and 2070.

Conclusion

The proportion of aged population as well as the projected number of older persons to increase is a significant issue in Bangladesh now. This study shows that the elderly population is increasing day by day in Bangladesh. Bangladesh is facing mountainous pace of population ageing. Health is a big issue for the elderly, with the incidence of most diseases increasing with age. People today live longer and enjoy better health than in the past. In Bangladesh, the prevalence of disability, frailty and chronic diseases increases dramatically. In addition, "the epidemiological transition" adds to the per capita health expenditure with advancing age. It should be bear in mind that the health care needs of ageing people are quite different from those of younger ones. Most of the older people in Bangladesh still depend on assistance from their children- generally in the form of money and material goods, time, physical care and the provision of living space- for at least part of their well-being. But today, that traditional family support system is under pressure due to demographic, social, cultural and economic change. The family support to elderly people declined. We may conclude

that there will be fewer persons to look after the elderly population in future. This indicates that we must have more hospitals, demand for more family care in future. Thus, Government needs to consider how older can afford health care facility they need. The public and/or private sections may provide it.

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