

Why Developed Countries Have Higher Proportion of Older People in Their Population Structure?

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Abstract—Today, all nations are moving towards the ageing of their populations. The objectives of the present article are (1) to describe the distribution of the world older population, (2) to discuss the home of the world older population in the future, and (3) to explain why developed countries have a higher proportion of older in their population structure. The materials in this paper were taken from a research using a content analysis design. The results of the study show the world older population is not evenly distributed. From 607.1 million older populations in the world in 1950, developing countries occupied around 66.8%, and this figure will be reached 80.0% in 2050. Although developing countries are the home of the majority of the world elderly, the individual countries in developing countries have a lower proportion of older people, while developed countries have roughly 30% of older populations in their population structure. The results of the study also show two demographic variables, namely fertility and mortality, determined the changes in the proportion of the older population. The older population started to increase when the rate of fertility and mortality started to decline. The shift from high to low levels of fertility and mortality has been explained through the stages of demographic transition. Because developed countries are in the final stage of demographic transition, they are having a high proportion of elderly people. The demographic transition, creating population ageing, is a triumph of development in socioeconomic conditions of the community, and development in medical technology in the twentieth century.

Keywords—Population ageing; Elderly people; Fertility; Mortality; Demographic transition

I. INTRODUCTION

Population ageing has become a prominent issue when discussing the global demographic change. The purpose of the present study is to examine the distribution of the world older population. Although this issue has received a widespread awareness from many researchers before, it will remain important to be discussed. This is because, among other things, the public are keep asking why is the elderly population increased? Why do developed industrial countries have a high percentage of the elderly people in their population structure? Why do developing countries still have a low percentage of the elderly people, and why is it now the elderly people is abundant in developing countries even though the percentage of the elderly people in the population structure in each developing country itself is still low? There will be many more questions could be raised, but in the present article, we are aiming to give a clear answer about why developed countries have a higher proportion of elderly in their population structure. In particular, the aims of this article are to: (1) describe the distribution of the world older population, (2) discuss the home of the world elderly population in the future, and to

(3) explain why developed countries have a higher proportion of elderly in their population structure.

II. RELATED WORK

If we delve into the writings on population ageing, we will find that to date, the population ageing has become a major demographic issue in all countries in the world. From what has been written, many scholars view such an issue was only a prominent issue in developed countries since many decades before, but of late this issue has become a prominent issue in developing countries as well.

Scholars in demography and gerontology today, agree that the world is on the threshold of population ageing. All nations are moving towards the ageing of their population [1]; [2]. Before the twenty first century; not all nations in developing countries are familiar with the population ageing [2]. At that time population ageing was only a demographic characteristic of developed countries, but as we enter the twenty first century, population ageing has become a worldwide demographic phenomenon [2]; [3]). The median age of all populations is increasing [4].

Although population ageing is a new phenomenon in developing countries as compared to industrialized countries, today, however, population ageing has become a demographic characteristic in many developing countries as well [2]. What most of us did not familiar is that, the process and speed of population ageing in developing countries is much faster than that of developed countries [2]. Although developing countries have a lower proportion of older people in the population structure, the process of population ageing is rapidly accelerating [5].

Developed countries such as France took 115 years to double their ageing population from 7% (in 1865) to 14% (in 1980). Countries, like Sweden, Australia, Canada, the United States, Germany, or Italy took a very long time to double their ageing population from 7% to 14%. While most developing countries such as Colombia, Brazil, Thailand, or Singapura took not even 30 years to double the ageing population from 7% to 14% [6].

The elderly population started to increase when the fertility rates as well as mortality rates started to decline. The shift from high to low fertility and mortality could be explained through demographic transition. Because of developed countries are in the final stage of demographic transition, they are having a high proportion of older people.

As there is no country is not affected by the population ageing right now, coupled with the experiences of developed countries regarding the issue of this population ageing, the way the policy makers in developing countries look at this fundamental issue has changed and they started to pay serious attention to this issue as well.

III. METHODOLOGY

The materials in this paper were taken from a research using a qualitative content analysis design. Information from the United Nations, various reports and books, from Kinsella and Taeuber, Kinsella and Velkoff, Kinsella and Wan He, Troisi and Kutsal, Yegidis and Weinbach, National Committee for the Elderly, Ferraro, Chakraborti, and Myers, and others cited in this article, are among the main sources of secondary information that have been used extensively in this qualitative content analysis study.

While reviewing secondary information for the use of a number of surveys conducted by the first author before this, there were a lot of secondary information have successfully been collected and kept. As this information carries a lot of valuable information, it is felt necessary to share them to help new researchers to have a clear picture of the population ageing worldwide. The study, or analysis and reanalysis of text information that was collected for some other purposes by other researchers is known as qualitative content analysis [7].

IV. RESULTS AND DISCUSSION

This article is aimed to: (1) describe the distribution of the world older population, (2) discuss the home of the world

elderly population in the future, and (3) explain why developed countries have a higher proportion of elderly in their population structure.

Distribution of Older population

The twenty-first century is “the century of population ageing”, and the United Nations has designated the year of 1999 as “The Year of the Older Person” to recognize that the global population is ageing [6]. That the world now has a luxury of the ageing population is well understood [2].

In this twenty-first century, not only developed countries have more elderly people, but it has also increased dramatically in developing countries. In the second quarter of the twentieth century (1950), the number of older populations aged 65 years and older was 127, 808 million. Fifty years later, in 2000, this figure was increased to 424, 516 million [8]. The latest projection by the United Nations shows the number of the world older population has reached to 900.9 million in 2015, and will be reached to 2092.0 million in 2050 [4].

Table 1: Distributions of Elderly Population, 65 Years and + (1950-2025)

Year	World		Developed		Developing	
	Number	%	Number	%	Number	%
1950	127 808	5.1	63 566	7.6	64 242	3.8
1960	160 067	5.3	80 250	8.5	79 817	3.8
1970	200 137	5.4	101 007	9.6	99 120	3.7
1980	263 986	5.9	130 858	11.5	133 129	4.0
1990	327 633	6.2	145 614	12.1	182 018	4.5
2000	424 516	6.8	172 820	13.7	251 696	5.0
2005	475 952	7.1	185 644	14.4	290 319	5.3
2015	597 804	7.8	210 735	15.9	387 136	6.1
2025	828 164	9.7	257 028	19.0	571 136	8.0

Source: “Asian Population Studies Series; No. 108 [8]”

Table 1 displays the growth of the estimated and projections of the world’s elderly population aged 65 years and over. The information as shown in the table becomes different if we use an elderly population growth record that uses a measure of the elderly population as aged 60 years and over. The information shows that the world’s elderly population has increased significantly since the 1950s. While in 1950, its number was only 127 808 million, the number has increased to 597 804 in 2015. Percentage wise, in 2025, the world elderly population has projected to increase to 9.7% as compared to only 5.1% in 1950.

The individual countries in developing countries itself has a lower proportion of elderly people in the population structure. Today, most of the developed countries have roughly 30% of the elderly population in their population structure. The proportion in developing countries, on the other hand, has not even reached 10%. Of the 10 countries with the highest proportion of the population aged 60 years in their population structure in 2015, Japan was the country with the highest percentage (33.4%), followed by Italy (29.4%) and Germany, 28.0%, while UAE, Qatar, and Uganda have around 3%. Table 2 displays 10 countries with the lowest and the highest percentage of older populations in their population structure (Table 2).

Table 2: 10 Countries with the Highest and Lowest of Elderly Population

Developed Countries*	Percent	Developing Countries**	Percent
Japan	33.1	UAE	2.4
Italy	28.6	Qatar	2.8
Germany	27.6	Uganda	3.3
Finland	27.2	Zambia	3.7
Portugal	27.1	Gambia	3.8
Greece	27.0	Burkina Faso	3.9
Bulgaria	26.9	Mali	4.0
Martinique	26.2	Chad	4.0
Croatia	25.9	Oman	4.0
Latvia	25.7	Angola	4.0

Sources: *United Nations, [3]; **National Committee for the Elderly, [9].

The Home of the World Older Population

As far as population records are concerned, the world population growth since time immemorial has never been evenly distributed. Much of the world's population is only concentrated in one particular area. The same is true of the world's elderly population. The distribution of the world's elderly population is not only unevenly distributed between the developed and developing countries, but it also differs significantly between countries as well. In terms of geographic regions, from 607.1 million older populations (1950), developing countries occupied 375.7 million, around 66.8% of the total, and this figure will be reached 80.0% in 2050 (Table 3).

Table 3: Distributions of Elderly Population

Regions	2000 (%)	2015 (%)	2030 (%)	2050 (%)
Developed Countries	231.3 (38.1%)	298.8 (33.2%)	375.2 (26.8%)	421.4 (20.1%)
Developing Countries	375.7 (61.9%)	602.1 (66.8%)	1027.2 (73.2%)	1670.5 (79.9%)
World	607.1	900.9	1402.4	2092.0

Source: World Population Ageing 2015 [4]

It is clear that the world older population is concentrated in developing countries. Although developed nations have a relatively high proportion of the older population, the most rapid increases in the older population and the majority of them is residing in developing countries [10]. Information in Table 3 shows that developing countries is the home of the majority of the world older population.

Why Developed Countries Have a Higher Proportion of Elderly People?

A combination of factors, such as the changes in demographic variables, namely fertility and mortality, increasing life expectancy, as well as migration, determined the proportion of the older population in the population structure. The first two variables, fertility and mortality, coupled with the increasing in life expectancy, are said to be the main contributors to it. Nowadays, all populations in all countries, are experiencing the increasing in life expectancy [2]. The contribution of migration plays a small role in the population ageing.

Australia, Canada and the United States (U.S) are among a few countries in which migration, particularly international migration has its impact on population ageing. One-tenth of the U. S. population aged 65 years and older, for

example, is foreign-born [11]. The older population also has increased rapidly in most developed and many developing countries because of worldwide improvements in health services as well as in the socioeconomic status of the community [2].

When the rate of fertility declines, the number of younger populations in the population structure will decline, and at the same time when the mortality rate is also declining, the proportion of the older population will increase. In demographic history, fertility and mortality rates are very high, and the rate of growth of the world population in general was very low. At that time the proportion of the world elderly population was very low. The elderly population started to increase when the rate of fertility as well as mortality started to decline. The steady increased in life expectancy is also an important variable behind the ageing of the population. The shift from high to low levels of fertility and mortality has been explained through stages in the demographic transition theory [12]; [13]; [14].

The first scholar to talk about the demographic transition was Thompson who explained the transition process of the world population in terms of two demographic variables, namely fertility and mortality in three groups of the population in Western Europe, Southern and Eastern Europe, as well as in Africa, Asia and America Latin [12]. From his observation, fertility and mortality rates have declined very rapidly in Western Europe in the early twentieth century. The fertility and mortality were in the transition to decline in Southern and Eastern Europe, whereas in Africa, Asia and America Latin, such rates were uncontrolled and gave rise to the population explosion. In modern day, the demographic transition is explained in four stages, as follows:

Stage 1

High levels of birth rates and death rates. Population growth is low. The population has a high proportion of young people. The proportion of older persons is very low.

Stage 2

Death rates begin to fall, while birth rates remain at a high level. In this stage, we have high levels of birth rates and death rates, and the natural rate of population growth arises. The size of the population rises rapidly, but with a high proportion of young ages.

Stage 3

Death rates continue to fall, and birth rates also begin to decline, thus, the natural rate of population growth arises, and the size of the older population begins to increase.

Stage 4

Death rates and birth rates reach equilibrium. Population growth is again low, and could be approaching zero growth. Thus, the age structure of the population stabilizes with a high proportion of elderly people.

A population with a relatively high proportion of elderly will happen when a country is in the stage 4 of

demographic transition. All countries in developed countries are now in this stage because both death and birth rates have already reached equilibrium. The societies in developed countries were in the early stage of this demographic transition long ago when they were still in the pre-industrial stage in the 17th century [12]). Most countries in the world today have already finished this stage. Most countries in developing countries in Asia, Africa and Latin America are in the second stage of this demographic transition [12]. The proportion of elderly people at this level is relatively small [15]. Some other developing countries in Asia have entered the third stage, that elderly people begin to increase [15].

Developed countries have entered the fourth stage of this transition. The population growth in a country that is in the fourth stage of the demographic transition have reached a zero or negative growth, and the population structure is stabilized, and it is characterized by a large proportion of the elderly population [15].

The United Nations, as listed in Table 4, shows 49 countries have completed the demographic transition process, or have entered the fourth stage of such transition where their population growth rate is below 0.4 per year [12]. The demographic transition started in Europe and North America, and the declining in fertility rates in these two regions could be traced since over the past two centuries [4]. All of these countries have a relatively high proportion of elderly people in their respective population.

Table 4: Countries in the Final Stage of Demographic Transition

Regios	Country
Asia	Japan (0.2), Kazakhstan (-0.3), Armenia (-0.3), Georgia (-1.1)
Europe	Belarus (-0.3), Bulgaria (-0.7), the Czech Republic (-0.2), Hungary (-0.4), Poland (0.1), Moldavia (0.0), Romania (-0.4), Russian Federation (-0.2), Slovakia (0.1), Ukraine (-0.4), Denmark (0.3), Estonia (-1.2), Faeroe Islands (-0.9), Finland (0.3), Latvia (-1.5), Lithuania (-0.3), Sweden (0.2), United Kingdom (0.2), Albania (-0.4), Croatia (-0.1), Gibraltar (-0.7), Greece (0.3), Holy See (0.3), Italy (0.0), San Marino (0.0), Slovenia (0.0), Spain (0.0), Yugoslavia (0.1), Belgium (0.1), France (0.4), Germany (0.1), the Netherlands (0.4)
America	Dominica (-0.1), Cuba (0.4), Grenada (0.3), Montserrat (-0.3), St. Kitts and Nevis (-0.8), the United States Virgin Islands (-0.9), Greenland (0.1), Suriname (0.4), St. Pierre and Miquelan (0.3)
Oceania	Niue (-0.9), Pitcairn (0.0), Tokelau (0.0), Tonga (0.3)

Figures in brackets are the growth rates of population growth [12]

In those countries, there is no population growth, and sometimes population growth is negative. These countries are likely to face problems in manpower. Many countries in industrialized countries now in the state of depopulation because the rate of fertility is very low.

In such a society, the proportion of the elderly population is bigger than the proportion of the younger ones. In these regions, because the relatively high proportion of elderly, it has resulted in decreasing or shrinking supply of young population as a source of workers [16]; [17].

The fact that the largest proportion of older people in the population structure is closely related to the level of demographic transition of a country is true. Developed countries, because they have long been completed a process of demographic transition, or are now in the fourth stage of transition, have a large proportion of elderly people in the population structure. Developing countries, on the other hand, although the number is increasing very rapidly [18], is still exhibit a relatively low proportion of elderly people because they are still in the second and third stage of demographic transition. Because of the process of social and economic development [19], demographic transition is starting to become apparent in most developing countries [20]; [21]; [22]; [23]. Thus, in this perspective, we can say that the differences in the level of demographic transition have resulted in the differences in the proportion of older people in the population structure, where nations in the early stages in this transition normally have a less proportion of older people [24].

V. CONCLUSION AND FUTURE SCOPE

This paper is related to population ageing. Although a lot has been written about population ageing, it is always fascinating to discuss this issue. Population ageing is not a new issue in developed countries, but a lot could be written about it in developing countries. Nowadays the population ageing has been a worldwide demographic phenomenon.

The world as a whole now has a luxury of elderly people. The elderly population is not only fast increased in terms of its absolute numbers, but it also fast increased in terms of its speed. Because the demographic transition started in developed countries, population ageing first started there, and because of that, we see that nowadays all developed countries have a high percentage of elderly people in their population structure as compared to the percentage of it in developing countries.

One thing we should keep in mind, however, although the world as a whole has a luxury of the elderly population, this category of the population did not distribute evenly all over the world. The majority of the world elderly population is residing in developing countries, and up to 2050, nearly 80% of them will be living in developing countries. There are many factors behind the population ageing; it is a combination of several factors, such as the changes in fertility and mortality, increasing life expectancy, migration, as well as because of worldwide improvements in health services and socioeconomic status. All these factors have been reviewed in this article.

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