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Population ageing succeeded by demographic dividend: the state of the Arab World

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Abstract

Background: The recent developments delineate the Arab World as an entity with population patterns and trends. Although it has undergone slow and delayed demographic transformations, this region has gained momentum and is thus rapidly improving in epidemiological and health prospects. Such a momentum has driven the Arab World beyond its historical superiority in living quality and lifestyle.

Aims and objectives: This analysis explains the ageing process as an outcome of the demographic dividend of the Arab World in the last three decades.

Methodology: The US Census Bureau International Database for 21 Arab countries was extracted for four time periods – 1992, 2002, 2012, and 2022. The dataset gives age-wise (five-year age groups) – from 0-4 to 100+, paving the way for ageing analyses from 60-64 years onwards. Analyses were made to explore hexagenarians, septuagenarians, octogenarians, nonagenarians, and centenarians in addition to proportions, percentages, rates, and ratios.

Results: The Arab World, as a whole, has a very complex demographic and gerontologic scenario, characterized by homogeneity in many dimensions but diversity in prominence. Demographic dividend, as the current scenario gives way to population ageing, is shortly. Even with the ageing of the population, this homogeneity versus diversity is reflected in the region, with many populations recording a faster ageing process. The elderly persons of hexagenarians, septuagenarians, octogenarians, nonagenarians, and centenarians are increasing in numbers and even in proportions.
Discussion: While immigration replaces and camouflages the ageing process in the GCC, the political unrest in the Other West Asia and the Arab Maghreb affects the scenario: the Nile Valley African Horn has a resource-thrift as the basis. Moreover, there are countrywide differentials within each geographic sector.

Conclusions and recommendations: With all these considerations and the increasing ageing of the aged, the Arab World demands ageing care from many dimensions to develop policies and programs.

Introduction

The Arab World is a distinctive region in terms of both geographic dimensions and population characteristics. The population of this region, spread over two continents, shares a common language and lifestyle.

With a rapidly declining death rate and a slowly declining birth rate, the population of the Arab World grew remarkably, especially during the second half of the 20th century. Specifically, the population of the Arab World has grown rapidly since 1950, and is projected to continue in the future. The resultant youth bulge (a rapidly growing youth population) pressurizes society, economy, politics, labor market, education, housing, health, and public utility services, which in turn influence family formation and future population growth (Fahimi and Kent, 2007). The higher proportion of youth in this population declines with the increase in the number of ageing persons, showing a significant gain in life expectancy (Yount and Sibai, 2009; Asharaf and Alshekteria, 2008; ESCWA, 2002). This region has great potential, with the positive economic effects of a fast birth rate drop, leading to the prevailing age structure as a flywheel of economic growth (Stanojevic, 2005).

Moreover, the demography of Arab countries is changing faster with declining fertility and increasing life expectancy, resulting in not only the population ageing but also the ageing of the aged population demanding social policies for their care that strengthen relationships between the state, family, and wider community as stakeholders in the provision of aged care (Khan et al., 2017). Salam et al. (2015) from research on the Arab World show an optimism of demographic stabilization in the region, soon conducive for further progress and gains, whereas Mirkin (2010) explains the profound demographic transition in the Arab World, which affects marriage, families, childbearing, child rearing, status of women, and care of older persons.

Immigration load in the GCC was debated for its massive increases, yearwise, to finish ambitious developmental policies, despite reforms and policy measures (Bel-Air, 2015, 2017; Salam, 2023). Overall natural increases, fertility hike, substantial migration, demographic dividend, and the resultant heterogeneity characterize the Arab demography with varying momentum, levels of demographic transition, and fertility decline (Engelhardt et al., 2018; Salam et al., 2015; Kronfol, 2013). Such a heterogeneity could be observed on the reproductive and maternal health dimensions too, thus attributed to a Janus Face characterized by stalled fertility decline and ageing (Puschmann and Matthijs, 2012; Yount and Sibai, 2009; ESCWA, 2002).

The Arab World passing through a demographic transition, although with varying speed, cautions for their near future of gerontological transition, with more and more persons reaching and surviving to higher ages, services for long term care, living arrangements, income and social security, protection against abuses, and emergency care, as pointed out by Ponnuswamy and Srinivasan (2015); Abyad (2021); and ESCWA (2016). The Arab country progresses to population ageing, showing a transition of values and norms; nevertheless, it has an interest (United Nations, 2017). Hussein (2010) argues for considerable care provision along the traditions emphasizing women and labor policies to strengthen informal care.

Demographic milestones of low infant mortality and declining fertility have been achieved by the Arab World despite the odds of the status of women, consanguinity, extended family living, migrations, and control of unwanted births and defective pregnancies (Kiraly, 2015; Harkat et al., 2017). These demographics relate to life quality and standards, determined largely by the social, psychological, physical, and spiritual dimensions (Zanjari et al., 2021). Still, social policy measures focused on demographic changes have not received the needed attention in this region (Khan et al., 2017).

In order to address the baby boom of yesteryears, reforms to utilize their productive potential of today, as these cohorts move to early adulthood, include labor and socio-economic reforms to turn the inflow into employment growth (Stanojevic, 2005). There is a demographic imbalance in the UAE and other GCC countries, born out of a small number of indigenous native population insufficient to meet the labor demands, professionally and technically, prompting to hire manpower from outside to facilitate prospects, although at a social, economic, and security risk (National Defense College, 2015). Still, the structural changes underway in the Arab World are a dominant paradigm for population and development, reflecting a more successful future by reaping opportunities accompanying the demographic dividend (Bawasir et al., 2023). LaGraffe (2012) and Abbot and Stivachitis (2019) argue that an unmanaged demographic dividend causes political turmoil, security concerns, and civil conflicts. Nevertheless, there is a direct relationship between dividends and GDP, as it influences the dependent load and thus the public policies needed to scale up the effect of age structure alteration to realize the potential (Youssef et al., 2018).

Arab countries' diversity was observed through contrasting economic and social situations: the world's richest countries and poorest countries, culturally diverse with religious and ethnic minorities (Tabutin and Schoumaker, 2005). Arab countries experienced a swift demographic transition in line with developmental efforts that influenced political transformations, power struggles, socio-political structures, and confusion in social life (Yucesahin and Tulga, 2017). However, there were diverse trends and patterns between countries (Mahasneh and Ebrahim, 2024). Thus, the classification of the Arab World into four, such as GCC, Other West Asia, Arab Maghreb, and Nile Valley African Horn (as done by Salam et al., 2015 and Khraif et al., 2015) is justified. Still population of the Arab region grows continuously with declines in growth rates – stalling fertility, higher fertility, rising life expectancy, changing age composition, decreasing share of childhood population, and increasing old-aged population with country-wide differentials and diversities (ESCWA, 2016). Hamanaka (2016) attributed Arab demography to youth bulge, political transformations, food prices shock, inflation, inequality, and wealth gap, whereas Nissan and Niroomand (2015) differentiated the Arabian Gulf countries' market-based economies from other Arab countries.

Objectives

The current analysis aimed at appraising the ageing process as an end product of the demographic dividend, the reality of the decades to come. Apart from the population ageing scenario and demographic dividend, analyses were carried out to demonstrate age-based indices and broad age group distribution.

Data Source and Methodology

Data Source

The current analysis is based on the International Data Base (IDB) of the US Census Bureau for 3 decades by taking 4 time periods – 1992, 2002, 2012 (Accessed on June-July, 2012), and 2022 (Accessed on December, 2022). Out of the 22 Arab countries included in the Arab League, data on Palestine were not included. There were no other unified comparable data sources for the region, except the United Nations Population Prospects. The International Database of the US Census Bureau offers comparable data across the Region except for the West Asian country of Palestine. Data from Sudan and a few others were not reported for certain periods.

Methodology of Analysis

The raw data downloaded from the database were analyzed statistically, as follows:

- Demographic dividend, the number of working-age persons (15–64 years) to 100 dependent persons (children below 15 years and old-aged 65 years and above).
- Age pyramids constructed by keeping the total population of males and females together as 100
- Child woman ratio, number of children aged 0–4 years per 1,000 women aged 15–49 years
- Aged child ratio, number of population aged 60 years and above per 100 children aged 0–14 years
- Median age, calculated by using the formula l+((N/2-fi)/fi)*x
- Age dependency ratio, number of persons aged 60 years and above per 100 persons aged 15–59 years
- Total dependency ratio, number of persons aged 60 years and above, and children below 15 years per 100 persons aged 15–59 years
- Proportion of population by broad age groups, number of persons in the broad age group per 100 persons in the total population

Results

1. Demographic Dividend

A demographic indicator of economic significance to employment, productivity, and contributions to the national economy, namely the demographic dividend, emerges as the current trend in the Arab World, although with differentials across geographic sectors and countries. There were three different scenarios explained due to the theoretical definitions and current-day practices. Traditional definitions define this variable as a ratio of working-age (15–59 years) to the others. However, with the improvement in life expectancy, health status, and declines in fertility and mortality, hardly anyone enters the labor force before 18 years. Moreover, a student crosses 20 years while graduating or professionally qualifying. So, the second scenario sets the working age as 20–64 years, assuming increased years of superannuation. Still, competition in the professional field and entry into employment in the service sectors are delayed further. Recently, a third scenario of working age as 25–64 years, has been considered. All these calculations were carried out for males,

females, and the total for the four periods (Table 1). As expected, due to the larger numerator, the results of Scenario I will be the highest, Scenario II will be higher, and Scenario III will be lower.

Countries in the Arab World, especially those of the GCC, struggle to integrate their adults into the productive labor force, thereby utilizing the window of opportunity created by the demographic dividend (Kirali, 2015; Saxena, 2008; Al-Khraif et al., 2022). Moreover, liberalized norms of labor force easing working hours and supportive environments are crucial, especially in the fast-moving social setup, pointed out by Hussein (2010). While the young population provides an increase in the labor force, economic progress depends on the capability to employ them, through reforms, to utilize their potential adequately to increase growth (Stanojevic, 2005).

Table 1
Demographic dividend for three scenarios by years, the Arab World

	Scenario I			Scenario II			Scenario III		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
The Arab World									
1992	1.2	1.1	1.1	0.8	0.8	0.8	0.5	0.6	0.5
2002	1.4	1.4	1.4	1.0	0.9	1.0	0.7	0.6	0.6
2012	1.6	1.5	1.5	1.2	1.1	1.1	0.8	0.8	0.8
2022	1.6	1.5	1.5	1.2	1.1	1.2	0.9	0.8	0.8
The GCC									
1992	1.5	1.0	1.3	1.2	0.7	1.0	0.9	0.5	0.7
2002	2.0	1.4	1.7	1.5	0.9	1.2	1.0	0.6	0.8
2012	2.7	1.8	2.3	2.0	1.3	1.7	1.3	0.9	1.1
2022	3.0	2.0	2.5	2.5	1.5	2.2	1.9	1.1	1.5
The Other West Asia									
1992	0.9	1.0	0.9	0.6	0.7	0.6	0.4	0.4	0.4
2002	1.2	1.2	1.2	0.8	0.8	0.8	0.5	0.5	0.5
2012	1.4	1.3	1.3	0.9	0.9	0.9	0.6	0.6	0.6
2022	1.5	1.5	1.5	1.2	1.1	1.1	0.7	0.7	0.7
Arab Maghreb									
1992	1.2	1.2	1.2	0.8	0.8	0.8	0.5	0.6	0.6
2002	1.5	1.6	1.6	1.1	1.1	1.1	0.7	0.7	0.7
2012	1.9	1.9	1.9	1.4	1.4	1.4	1.0	1.0	1.0
2022	1.6	1.6	1.6	1.3	1.3	1.3	1.0	1.0	1.0
Nile Valley African Horn									
1992	1.2	1.2	1.2	0.8	0.9	0.9	0.6	0.6	0.6
2002	1.4	1.4	1.4	0.9	1.0	1.0	0.6	0.6	0.6
2012	1.3	1.3	1.3	1.0	1.0	1.0	0.7	0.7	0.7
2022	1.3	1.3	1.3	1.0	1.0	1.0	0.7	0.7	0.7

Bawasir et al (2023) explain this concept for the Middle Eastern countries, connecting with population and development, creating opportunities for economic growth, and reaping the opportunity through which macroeconomic strategies and changes, and fiscal regulatory labor market policies to enhance employment prospects. Thus, as Englehardt and Shulz (2017) put it, the Arab world has to respond to benefit from the demographic dividend and the population momentum by adapting its economic, social, and political institutions. Such a demographic of youth bulge, Courbage (2012) explained as a volatile demography, causing a demographic explosion that pressures the labor market. No doubt, this demographic bonus has positive value for an open, interdependent, globalized economy, encouraging migrations and relocations (Harkat et al., 2017; Donte et al., 2000). Clawson and Laipson (2002) explain the increasing demographic dividend as a

demographic gift, which is a challenge for the region, requiring potential labor power to fuel the dramatic economic growth.

There is a rapidly increasing trend of demographic dividend for both sexes and thus for the total. It increased from 1.1 in 1992 (1.2 for males and 1.1 for females) to 1.5 in 2022 (1.6 and 1.5), with the highest increase during 2002–2012, but decreased during 2012–2022. However, in the case of Scenario II, it steadily increased from 0.8 in 1992 (0.8) to 1.2 (1.2 and 1.1): a steady increase. Even Scenario III also shows a steady increase from 0.5 in 1992 (0.5 and 0.6) to 0.8 in 2022 (0.9 and 0.8), showing increases. There was a male-female difference in that the dividend is higher in males, bringing out the sex ratios at births, cohort ratios, and child survival. Besides, the higher increase of 2002–2012 dropped in 2012–2022, indicating the progress of demographic dividend to retirement and ageing boom. To be clear, there were, on average, 1.5, 1.2, and 0.8 working-age persons for each dependent.

With time, the dependency burden declines, and working-age contributors to the national economy increase. This is explained as an economic opportunity for utilizing human resources' productivity and professional qualities to reap the benefits. The difference between males and females was found to be the highest in 2022 (11, 8, and 6 points), followed by 2002 (6, 4, and 3 points), explaining the role of gender balance in bringing out demographics at advanced levels. The situation in various sectors might show differences, as do other indicators.

In the GCC sector, dividends have been acclaimed to be very high and rapidly increasing over the period. It is the immigrant load of adult males that is reflected in the dividend, especially of the male part. On the contrary, the ratio of Other West Asia is low, lower than expected, but with an increasing trend. While that of Scenario I increased from 0.9 (0.9 and 1.0) to 1.5 (1.5 each), that of Scenario II rose from 0.6 (0.6 and 0.7) to 1.1 (1.2 and 1.1), and Scenario III from 0.4 (0.4 each) to 0.7 (0.7 each) period-wise from 1992 to 2022. Improvement in this region followed a similar pattern, country-wise, with male-female differences. The Arab Maghreb sector shows a higher ratio but a slower increase, in fact a decline in the 2012–2022 period, except in Mauritania (1.2 to 1.3), for both males and females. In the Nile Valley African Horn sector, a low and stagnated ratio was found. Improvements were slow compared to other sectors.

Age Pyramids

The age pyramid of the Arab World appeared expansive in shape, showing a higher percentage of children with a declining proportion of subsequent ages (ESCWA, 2002). The percentage of the old-aged population was low in 1992, which remained intact till 2012 (Fig. 1), whereas that of 2022 shows expansions with a shrinking of the childhood population (signs of population ageing) along with the expansion of subsequent ages. The age pyramid showed some change, though little, in 2002, that there was some decline in the percentage of children and those in subsequent years, but a slight increase in the older ages. It gained an expansive shape in 2012 with a broader base expanding at subsequent ages. While comparing the age pyramids of 2012 and 2022, they lost shape and transformed into a cylindrical form without a constricting stage. Such a rapid transformation might have had an intermediate period somewhere, in 2016. Therefore, the pyramid lost its expansive shape, constricted, and received a cylindrical shape. Shapes of age pyramid from expansive to constrictive to cylindrical shapes correspond to population ageing levels – low, moderate, and high, resulting from changing age patterns, dependency ratios, and median age, as Engelhardt et al. (2018) explained as the new demographic trend of the Arab World. Hussein and Ismail (2017) and Khraif et al. (2015) explained this scenario of the Arab World.

Age Pyramids of GCC showed an unexplained trend. It was due to the influx of foreign labor force within the sector, a majority of people were males of adult age (Fig. 2). It was neither easy to interpret their pyramids nor to understand. The Other West Asia population pyramid was more revealing of the trend of changing age structures towards reducing the percentage of children and increasing percentages of subsequent categories. The age structure of the Arab Maghreb shows a trend of a constriction and further reduction of the percentage of children. Their aged population was expanding

continuously. The age structure of the Nile Valley African Horn sector changed from an expansive shape in 1992 to a less expansive shape in 2012 and a constriction in 2022.

Except for the GCC, age pyramids of other sectors show clear transitions from expansive to constrictive to cylindrical shapes. The most rapid transition occurred in the Arab Maghreb, where the expansive shape of 1992 gave way to a constrictive shape in 2002, and further constrictions in 2012 and cylindrical in 2022. Although a stage behind, the Other West Asia also has a transformation from a shape of expansive to a less expansive to a constrictive shape. But in the case of the Nile Valley African Horn, the expansive shape of 1992 constricted in 2002, but that trend did not continue further. These structures of age indicate stages of transitions in demography, economy, livelihood, technological improvements, infrastructure scenario, and thus lifestyle standards and quality. Social systems, changes in occupations, educational upliftment, and modern values, instead of traditions, play their roles in these changes. In short, age pyramids are picturesque descriptions of population, whose changes are attributed to changes in the whole gamut of life – social, economic, health, and demographic.

Thus, intervention strategies aiming to maximize health and well-being in old age might focus on an integrated and holistic model, with policies and programs to intensify home care (Sibai et al., 2017). Kronfol (2013) explains the need to choose approaches to improve education and thereby job opportunities for youth, so as to strengthen human capacity by way of reforms and engagements. Still, provisions for care of older persons, the dire demographic needs of the decade, has many wasy to address, such as disease surveillance, preventive geriatrics, promoting healthy ageing, research on ageing, disease burden analyses, improving health care provisions, evidence-based policies, a mix of formal and informal care system, long term care services complemented by education, respite, medical appointments, and financial assistances to care for ageing are valuable (Abyaad, 2021). The United Nations (2017) recommends partnership between governments, NGOs, and the private sector for capacity building and development of needed tools for policy and programs and action plans with political will.

4.1. Age-Based Indices

There were four indices of statistical significance derived to interpret age structural composition of this particular population: child-woman ratio, aged-child ratio, median age, and age dependency ratio (Table 4.1). These ratios are useful in demography for structural interpretations of analyses to showcase trends and patterns of population, stage-wise, along the demographic transition. These indicators are realized to be of value in interpreting living arrangements, life conditions, and interpersonal and generational relationships. These indicators show the number of persons of various denominations – children, adults, or old-aged, apart from the average age of a population. Engelhardt et al., (2018) and ESCWA (2017) explained the decline in dependency ratios with an increase in median age, the instances of adults bulges at a time of declining average family size at household level.

The Child Woman Ratio, showing the number of children below 5 years of age per 1,000 women aged 15–49 years, reflects reproductive behaviors and domestic responsibility of not only the women but also their husbands and other family members.

Aged child ratio, otherwise termed as the index of ageing, the percentage of the population aged 60 years and above to the children aged below 15 years, shows two sides of the age structure, the bottom, and the top. An increasing trend indicates an increase in the number of people aged 60 years and above, over time, per 100 children.

The Arab World, as a whole, started coping with this change at various levels – family, community, and society to accommodate their increasing number of older persons with required care and concern – health, income, housing, nutrition, welfare, entertainment, and other elderly-friendly utilities. Acceleration in the aged child ratio was the highest in 2012–2022, with higher differentials among females than males, indicating that older males increased more slowly than older females. This is typical of the population ageing with feminine characteristics indicating higher life expectancy,

lower means of income, and less family assistance (Puschmann and Mattijs, 2012). The number of elderly in a family, community, society, and even in a gathering affects behaviors, habits, and practices, and, thereby, the life and lifestyle.

Table 2
Age-based indices, the Arab World

Years	Child-woman ratio			Aged child ratio			Age dependency ratio			Median age		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
The Arab World												
1992	323.7	310.2	633.9	13.2	13.3	13.2	10.2	10.5	10.3	19.1	18.8	18.9
2002	251.6	241.4	493.0	15.2	16.5	15.8	9.2	10.3	9.7	21.5	21.2	21.4
2012	231.4	221.8	453.2	17.9	20.4	19.1	9.7	11.3	10.4	27.2	27.9	27.6
2022	223.7	213.6	437.2	22.7	23.9	23.2	11.9	13.2	12.5	25.5	24.7	25.1
The GCC												
1992	395.5	379.6	775.1	10.1	7.7	8.9	6.0	7.2	6.4	24.2	16.8	20.7
2002	262.8	251.8	514.6	11.5	9.5	10.5	5.1	6.5	5.6	26.0	20.1	23.6
2012	188.9	180.8	369.8	16.4	14.7	15.5	5.3	7.0	6.0	28.7	24.6	27.1
2022	150.8	144.4	295.3	30.2	22.5	26.5	7.7	9.1	8.2	34.6	28.6	32.3
Other West Asia												
1992	398.0	382.1	780.1	10.8	11.5	11.2	10.4	10.9	10.7	16.5	16.8	16.6
2002	322.0	308.7	630.7	11.5	12.7	12.1	8.9	9.8	9.4	18.5	18.7	18.6
2012	262.9	251.7	514.6	13.3	15.5	14.4	8.7	10.0	9.4	20.9	21.2	21.1
2022	224.3	214.3	438.6	15.9	19.4	17.6	9.2	11.0	10.1	22.6	23.1	22.8
Arab Maghreb												
1992	287.8	275.3	563.1	15.6	16.2	15.9	11.8	10.9	10.7	16.5	16.8	16.6
2002	184.9	177.2	362.0	20.8	23.8	22.3	11.2	9.8	9.4	18.5	18.7	18.6
2012	159.9	153.3	313.2	29.9	34.3	32.1	12.4	10.0	9.4	20.9	21.2	21.1
2022	187.0	178.7	365.7	36.5	40.7	38.5	17.3	11.0	10.1	22.6	23.1	22.8
Nile Valley African Horn												
1992	284.9	272.9	557.7	14.2	14.0	14.1	10.3	9.9	10.1	19.5	19.9	19.7
2002	261.0	250.6	511.6	15.3	16.6	15.9	9.5	10.1	9.8	21.0	21.5	21.3
2012	274.5	263.3	537.9	15.8	18.6	17.2	10.2	11.7	10.9	21.7	22.3	22.0
2022	270.8	258.4	529.2	18.7	18.9	18.8	12.5	12.4	12.4	21.7	21.9	21.8

The age dependency ratio, the percentage of old-aged (60 years and above) to working age (15–59 years), indicates the burden of social welfare and benefit programs in a population. There was a higher ratio in the Arab World, which varied during the period; a decline during 1992–2002 (from 10.3 to 9.7) but an increase during 2002–2012 (to 10.4) and 2012–2022 (to 12.5). This ratio shows that there are around 10 older persons per 100 adults in the Arab World, which reached

13 by 2022. Median Age, the average age of the population, indicates not only the fertility and mortality situation but also the population and development by pictorially describing the movement of the population from a childhood-dominated to an adolescent/youth-dominated to an adult-dominated.

A population with a low median age has structures and systems different from those with a higher median age. Changes in systems of infrastructure and utilities depend largely on the median age of the population. An increase in the median age describes changes required in structural concerns to address their lifestyle. On the other hand, they are reflections of the need hierarchies of the population, to a great extent. Overall, the region undergoes an ageing process that increases health care costs arising from the epidemiological transition that increases disability, demanding long-term care (Ponnuswamy and Srinivasan, 2015). Pressures of care rest with women in the Arab World, due to migration, changing family structure, and labor force participation (Hussein, 2010). These demographic indices of age structural distribution reflect the socio-economics, including standards and qualities of a population group. As already stated, the four sectors of the Arab World have different levels of socio-economic and lifestyle quality and standards. It covers from the richest Qatar and the UAE to the poorest Somalia and Sudan. These differentials are inherent in their demographics, even in the age-structural composition.

Changes in the fertility patterns, as reflected by these indices, press for an acceleration of the ageing process in the country that burdens the new generations of adults (Puschmann and Mattijis, 2012, 2015). Thus, there arises a more rapid pace of population ageing, warranting an empowerment of generational support, family care, filial care, and financial support from the formal systems (Ponnuswamy and Srinivasan, 2015). Overall, the region undergoes an ageing process that increases health care costs arising from the epidemiological transition that increases disability, demanding long-term care (Ponnuswamy and Srinivasan, 2015). Pressures of care rest with women in the Arab World, due to migration, changing family structure, and labor force participation (Hussein, 2010).

Broad Age Groups:
This commonly used demographic classification divides the population into three categories: children (below 15 years); adults (between 15 and 59 years); and old-aged (60 years and above). A large proportion of the population of the Arab World falls under the adult category (Table 3). This economically active age has implications for productivity and financial involvement, whose percentage increased from 53.1 (1992) to 58.4 (2002) to 60.6 (2012) to 60.1 (2022). Such an increase would have resulted from a decrease in the childhood population. However, he recent stagnation in this age group could be attributed to the increasing old-aged population. Such a phenomenon is of global importance, especially in developing countries, referring to the demographic dividend with a bearing on economics as a window of opportunity.

The population all over the world, including the Arab countries, was under pressure to expand avenues and utilize the resources for maximum returns on the grounds of increasing working-age adults (Harkat et al., 2017; Donte et al., 2000). The yesteryear's youth bulge gave way to an adult bulge in his region, leading to a decrease in dependencies, both child and old age (Engelhardt et al., 2018). Automatically, the demographic and economic revolutions equip adults to earn better so as to bear the expenses of their aged parents (Courbage, 2012).

Table 3
Proportion of population by broad age group, the Arab World

Years	Children (below 15 years)			Adults (15–59 years)			Old-aged (60 + years)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
The Arab World									
1992	41.1	41.8	41.4	53.4	52.7	53.1	5.4	5.5	5.5
2002	35.7	36.2	36.0	58.9	57.8	58.4	5.4	6.0	5.7
2012	33.0	33.2	33.1	61.1	60.0	60.6	5.9	6.8	6.3
2022	31.9	32.8	32.4	60.8	59.4	60.1	7.2	7.8	7.5
The GCC									
1992	36.0	46.5	40.5	60.4	49.9	55.9	3.6	3.6	3.6
2002	29.8	38.9	33.6	66.8	57.4	62.8	3.4	3.7	3.5
2012	23.5	30.9	26.6	72.6	64.5	69.2	3.8	4.5	4.1
2022	19.1	27.1	22.3	75.1	66.8	71.7	5.8	6.1	5.9
Other West Asia									
1992	46.6	46.0	46.3	48.3	48.7	48.5	5.0	5.3	5.2
2002	41.7	41.3	41.5	53.5	53.4	53.5	4.8	5.2	5.0
2012	37.6	37.0	37.3	57.4	57.2	57.3	5.0	5.7	5.4
2022	34.5	33.8	34.2	60.0	69.7	59.8	5.5	6.5	6.0
Arab Maghreb									
1992	40.3	39.5	39.9	53.4	54.1	53.8	6.3	6.4	6.3
2002	32.5	31.4	32.0	58.9	61.2	60.9	6.8	7.5	7.1
2012	26.9	25.7	26.3	61.1	65.4	65.2	8.0	8.8	8.4
2022	28.8	27.7	28.2	60.8	61.0	60.9	10.5	11.3	10.9
Nile Valley African Horn									
1992	39.6	39.2	39.4	54.7	55.3	55.0	5.6	5.5	5.6
2002	36.3	35.8	36.0	58.2	58.3	58.3	5.6	5.9	5.7
2012	36.9	36.0	36.5	57.3	57.3	57.3	5.8	6.7	6.3
2022	37.2	36.9	37.0	55.9	56.2	56.0	7.0	7.0	7.0

Such a rapid, unexpected increase in the proportion of adult age groups with a marked decrease in the childhood population, especially the males, runs against demographic theoretical contentions. This imbalance, favoring males, has explanations of hiring adult males, from outside, to fill the gaps in labor demand and supply. This hired workforce remains with their labor contracts till their superannuation or the duration of labor, whichever is earlier.

Additionally, everyone leaving the labor force due to age or health is being replaced by another one who matches the labor force requirements. Except for the labor contract terms, these adults have no claims applicable to natives or citizens. Hence, this percentage distribution seeks to be distinguished from that of the native population for their marginalization and uniqueness as compared to the indigenous native population. Still, an accelerated ageing process is observed that results in a demand for caring mechanisms and the rapid transitions in family and women (Khan et al., 2017).

The Other West Asia, in comparison to GCC, has a less rapid change of decreasing children and increasing adults; in conformity with demographic theories and principles. However, natural trends of decreases in the earlier years of life lead to increases in the subsequent years and thereby old age.

The Arab Maghreb, in comparison, had an age-structural change explicitly stated by demographic transition theorists. This is a more or less stable region with a less intense flow of immigration and emigration. Although the natural resources are fewer, there are options for sustaining a lifestyle. This age structural transformation from children to youths and adults in the Arab World was discussed by Clawson and Laipson (2002).

The Nile Valley African Horn is a sector comprised of countries with different socio-economic and demographic profiles. In comparison with other sectors, the age structural changes are explicit but, to a large extent, follow the demographic transition theory propositions.

On this indicator of broad age groups, the Arab World is going through a transition, especially in demographic dividend; however, with varying levels and trends. GCC countries, with the massive labor force requirements, promoted immigration to bridge the demand-supply gap and accommodate adults, especially males, with replacements. Thus, countries in this sector have an increasingly large share of adults, even though this cannot be accounted for as a demographic process. It has reasons for immigration of adults as per labor force requirements, creating a flexible labor force, and replacements due to superannuation and medical cases. On the other hand, the Other West Asian countries have a more or less natural age structural change, giving rise to an increased natural increase rather than immigration.

A large share of youths emigrated for brighter futures, affecting the demographic processes. The Arab Maghreb sector has been referred to as a demographically more stable although with intercountry and international migrations. Thus, countries in this sector move forward to a demographic dividend but with disturbances caused due to the Arab Spring and other sociopolitical conflicts. The Nile Valley African Horn shows a mix of countries standing at various stages. Nevertheless, there is a demographic momentum in the Arab World countries towards an age-structural transformation. Reasons behind such transformations that differentiate the Arab World include political turmoil, forced displacements, dynamic migration flows, and socioeconomic instability, distorting family cohesion and exhausting resources (Sibai, et al., 2017).

Conclusions and Recommendations

The Arab World demographics are indicative of gains in longevity. Death rate reductions, which accompanied falls in birth rate, all over the region, with differentials across geographic sectors and countries, facilitated population ageing born out of gains in longevity, epidemiology, and health. All over the Arab World, ageing patterns and scenarios transform to the heights through the demographic dividend. The current stage of dividend disappears soon in most of the Arab countries, and thus the sectors and the region as a whole in a decade or two, giving way to the ageing of the population. Thus, there are many plans, policies, strategies, actions, and interventions essential, country-wise, geographic sector-wise, and region-wise.

Declarations

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Ethics and Conflict of Interest: This research has been carried out with available online data published for further analysis by researchers, students, and academicians. However, the analyses carried out on the treated data will be made available to researchers on request. Thus, this analysis adheres to the ethical code of conduct. Further, the researchers have no conflicts of interest.

Data availability statement: Data utilized in this research were available on census.gov. However, the analysed data will be made available to the researchers on request.

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Figures

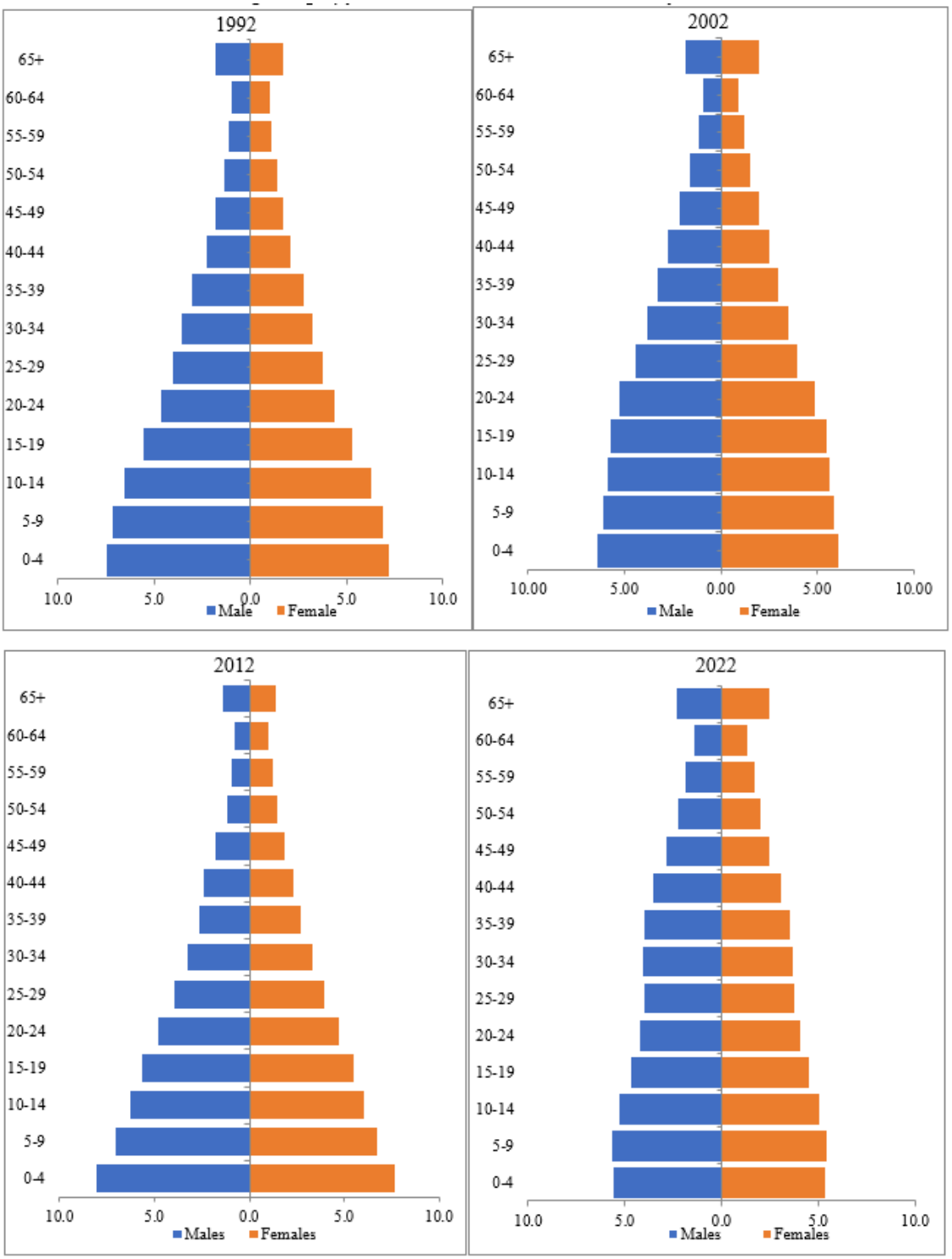


Figure 1

Age pyramids of the Arab World, various years

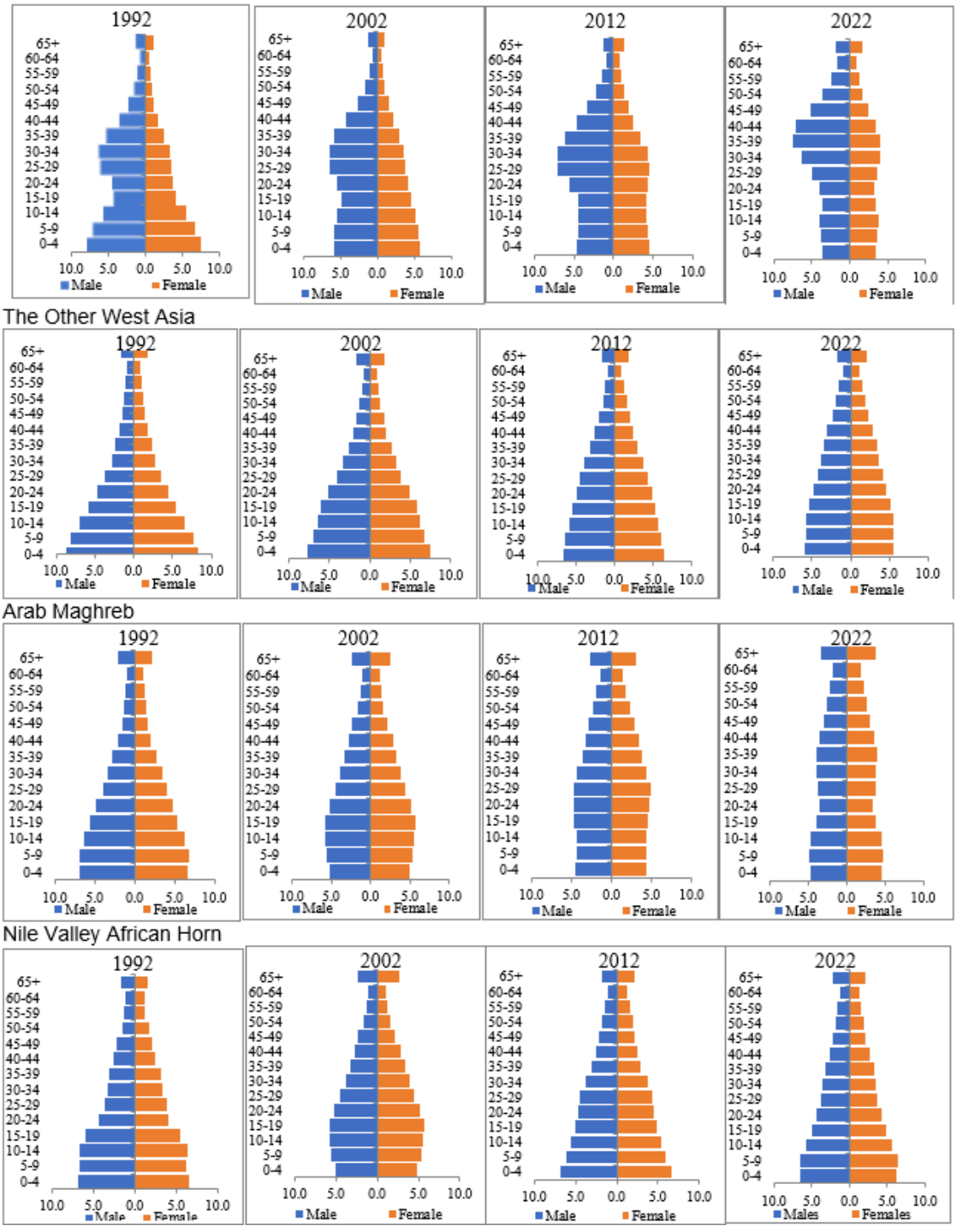


Figure 2

Age pyramid by sectors, various periods