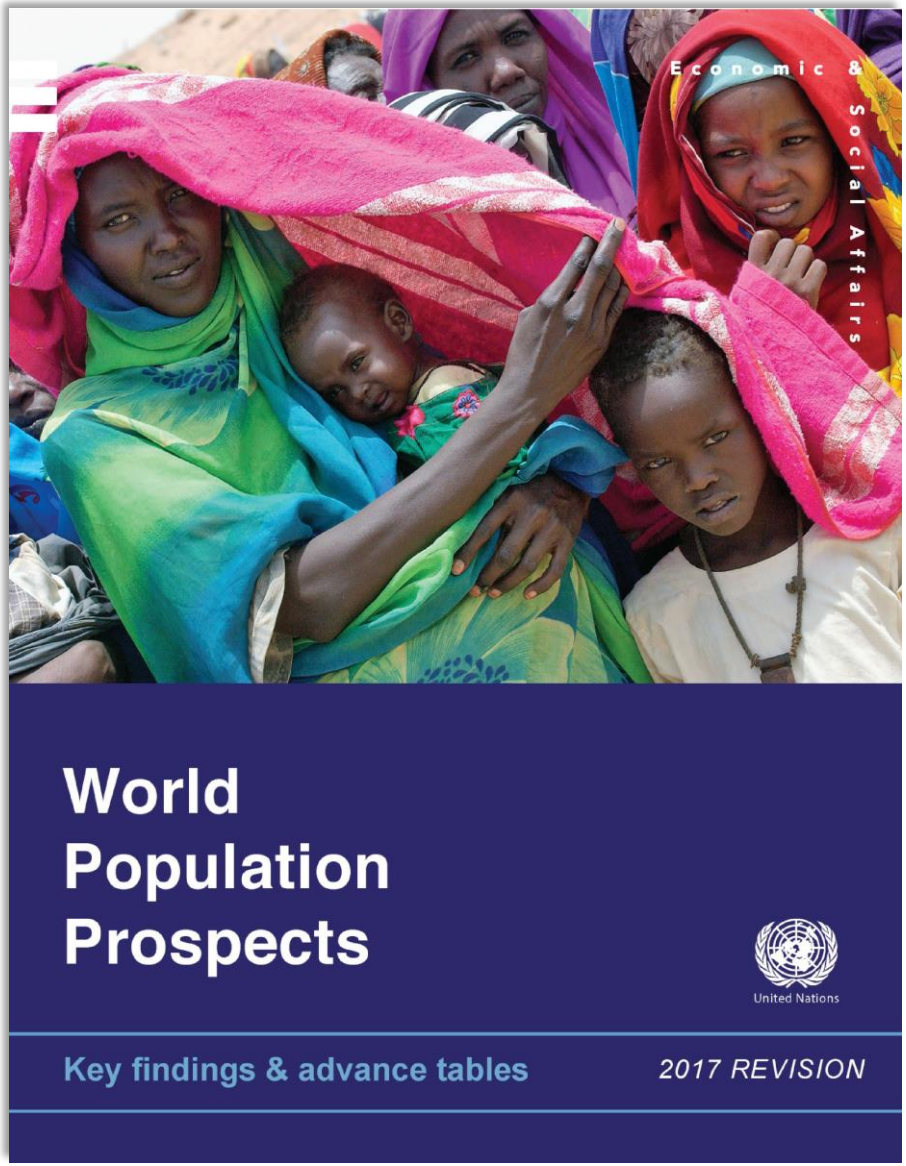
LIFE EXTENSION ADVOCACY FOUNDATION

WWW.LEAFSCIENCE.ORG

lifespan.io

How rejuvenation technologies can help with the challenges of population aging



Source:

[UN World Population Prospects 2017]

You can find population statistics and a forecast for each country up to the year 2100 in the "Demographic Profiles" document

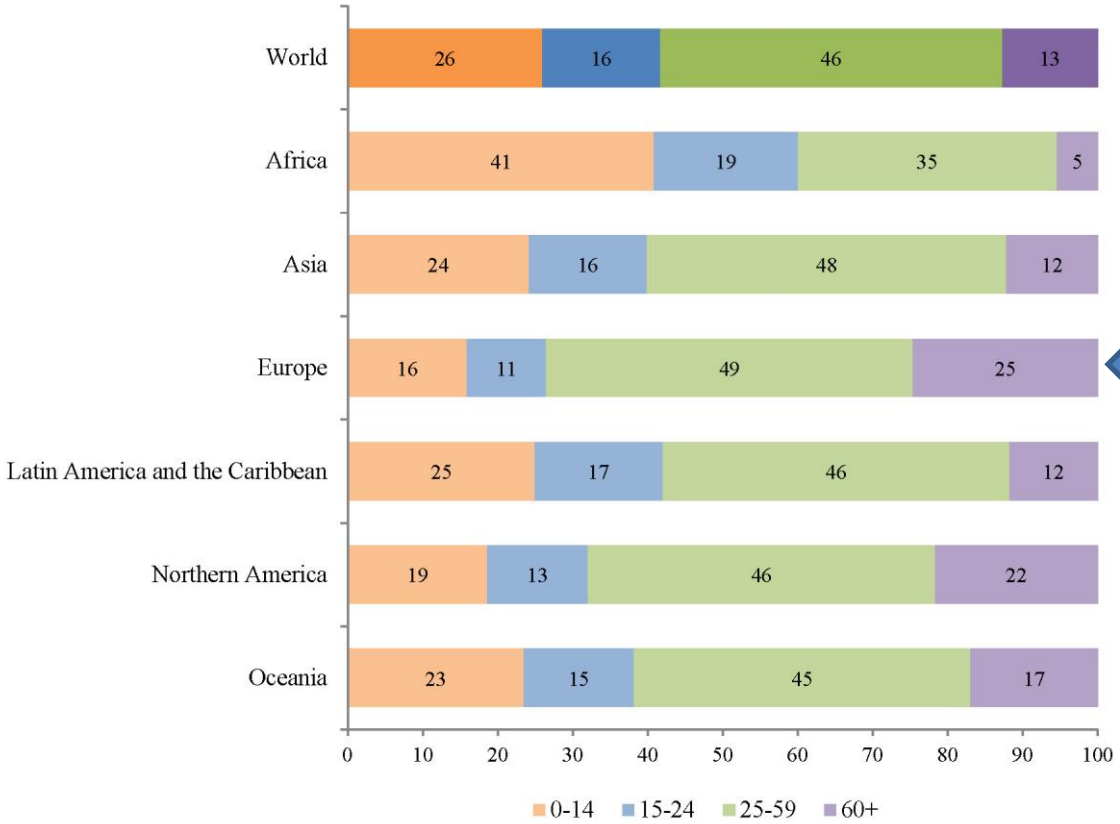
Population aging is the increase of the median age of people in a given region. Fewer children are born, and there is a higher proportion of elderly people.

Globally, the number of 60+ people is rapidly increasing

2.1 billion in 2050 (21%)

3.1 billion in 2100 (27%)

Figure 8. Percentage of population in broad age groups for the world and by region, 2017

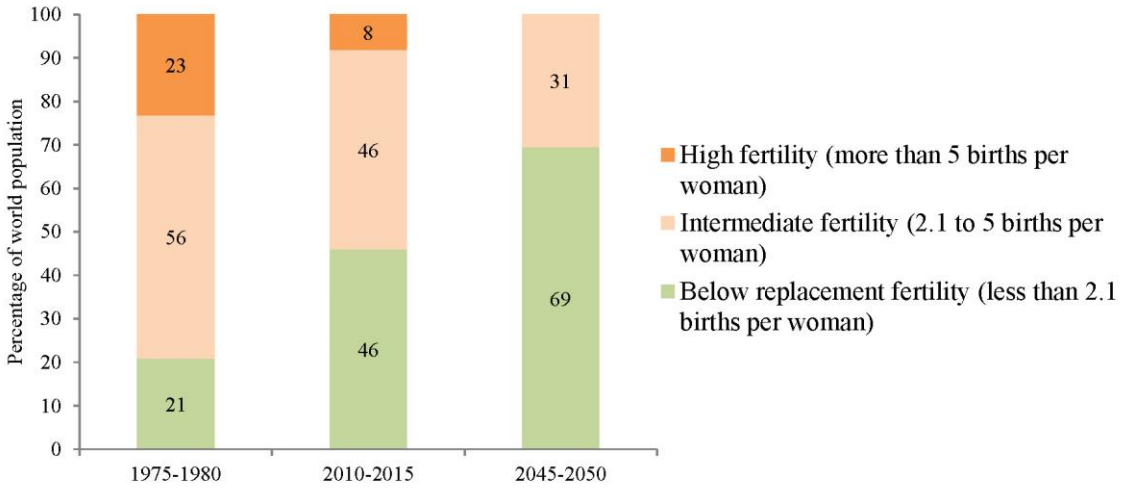


Source: United Nations, Department of Economic and Social Affairs, Population Division (2017). *World Population Prospects: The 2017 Revision.* New York: United Nations.

European countries and North America already have 22-25% of population 60+.

The main cause of population aging is the declining fertility rate

Figure 5. Distribution of the world's population by level of total fertility, 1975-1980, 2010-2015 and 2045-2050

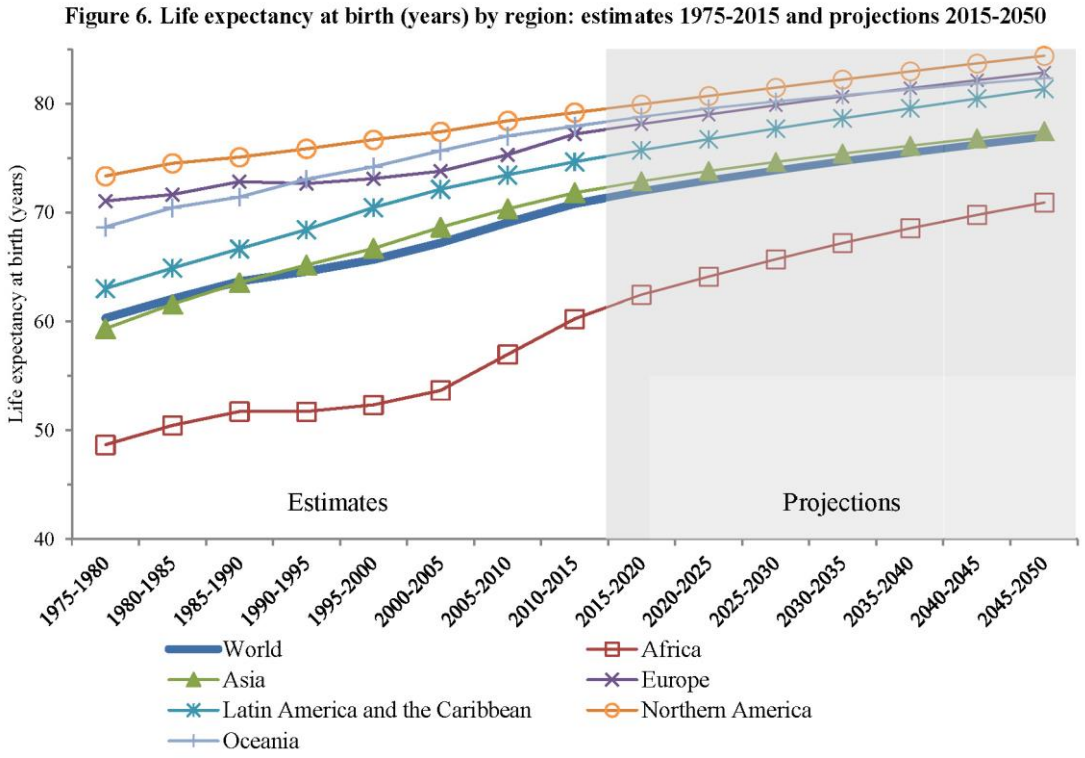


Source: United Nations, Department of Economic and Social Affairs, Population Division (2017). *World Population Prospects: The 2017 Revision*. New York: United Nations.

As a country becomes more developed, its fertility rate decreases. This happens because more women receive education, enter the labor market, and postpone the birth of their first children because of their careers or the need to support their families. The availability and cultural acceptability of using contraception for family planning is another important factor affecting the birth rate.

In many developed countries, the birth rate is currently below replacement level (less than two children per woman), which is why the population of these countries is decreasing.

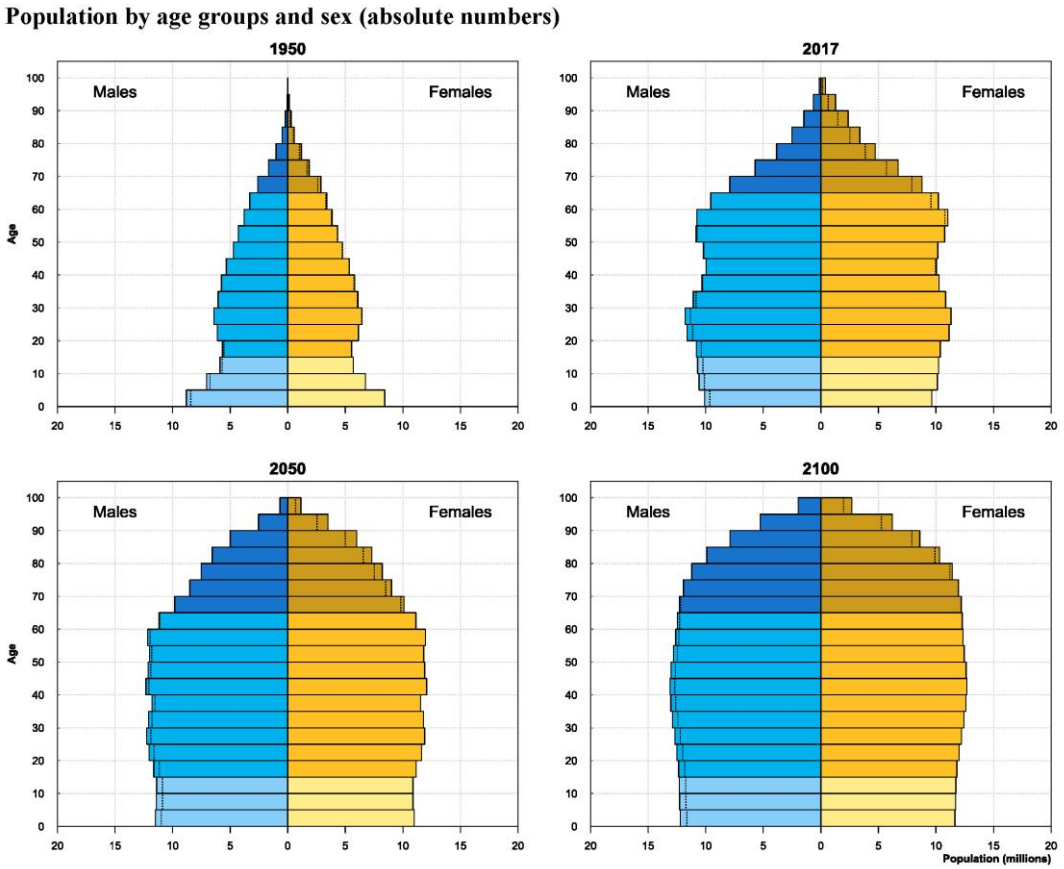
Life expectancy is rising



As a result of better nutrition, sanitation and more advanced medicine, people live longer and life expectancy is growing everywhere. The least developed countries enjoy the fastest growth of life expectancy.

The average life expectancy globally is around 72 years, and it keeps growing by approximately 3 months per year. This growth is accelerating.

Population aging is affecting the demographic structure of the nation

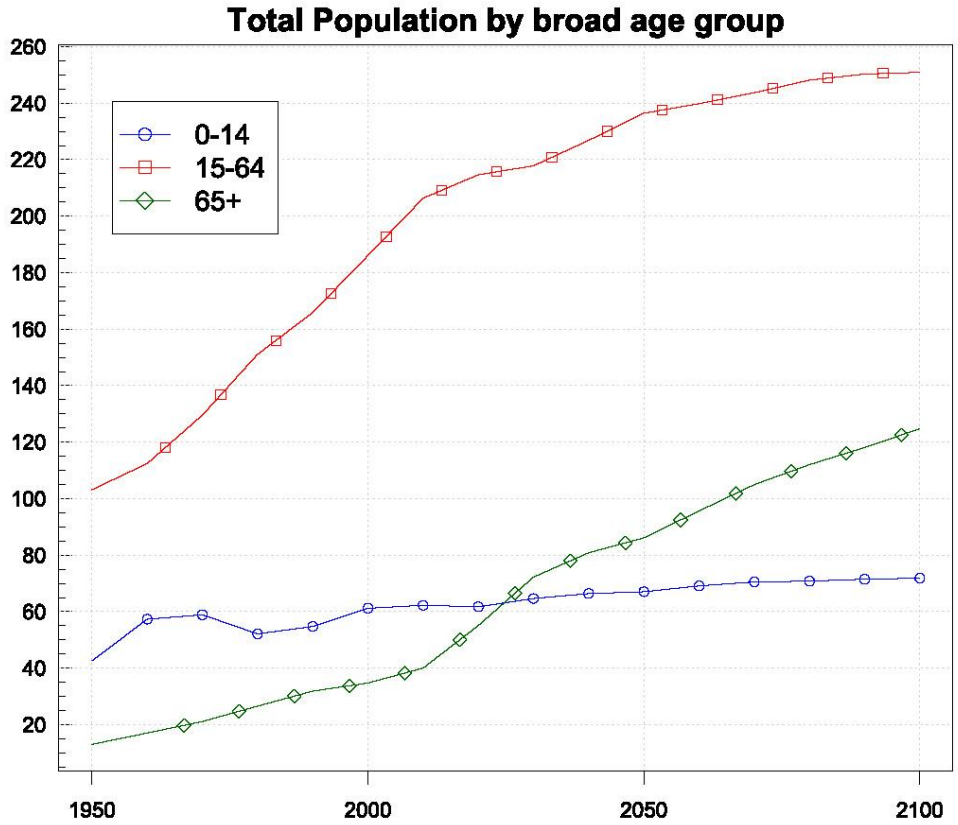


Demographic structure is usually visualized as a pyramid; the triangular top of the pyramid represents the oldest people, and the large foundation represents youth.

This forecast for the USA shows that the geometry is changing, and by 2100, the top of the pyramid will resemble a dome rather than a triangle, while the youthful foundation is going to be thinner than the part representing adult population.

These changes reflect the improved survival in old age as well as the reduction in birthrate.

Population aging is affecting the demographic structure of the nation



This graph of the demographic profile of the United States shows that the proportion of people 65+ is growing faster than that of any other age group.

It leads to an increase in the old-age dependency ratio (the number of old people who may require the support of 100 people of working age).

The old-age dependency ratio in USA will reach 36.4 by 2050 and 49.7 by 2100.

By 2050, nearly a quarter of people will be 60+

This can be a challenge or an opportunity to our society, depending on how healthy these people will be.

If rejuvenation technologies, able to prevent and cure age-related diseases, will be developed and made globally affordable and accessible in the next 20 years, we may have an additional quarter of the population taking part in economic development and helping to solve global issues.

However, if rejuvenation technologies are not developed in time, we may face the heaviest burden of chronic age-related disease in human history due to population aging.

Conclusion

Population aging is the increase of the median age of the population of a given region.

Population aging is happening because of a decrease in birthrate and an increase in life expectancy, which go together with national economic development, the availability of education and jobs for women, and the improvement of nutrition, sanitation, and healthcare systems.

The 60+ population is the fastest-growing age group. By 2050, 21% of the global population will be in this group, and by 2100, 27%.

The effect of population aging on our society depends on whether these people are going to be healthy, productive and independent or severely affected by chronic, age-related diseases.

The development of rejuvenation technologies gives hope for keeping 60+ people healthy and productive so that they can live full lives and take part in economic development for much longer.

LIFE EXTENSION ADVOCACY FOUNDATION
WWW.LEAFSCIENCE.ORG

lifespan.io

Thank you!

If you have an interesting research project in mind to investigate one of the main mechanisms of aging and longevity or you would like to support such a project, you are welcome to contact us at info@lifespan.io.

Visit www.lifespan.io and www.leafscience.org to learn more about our work.

You are welcome to subscribe to our newsletter!

Facebook: www.facebook.com/lifespanio
Twitter: www.twitter.com/LifespanIO
Youtube:www.youtube.com/user/LifespanIO