# POPULATION REVISION

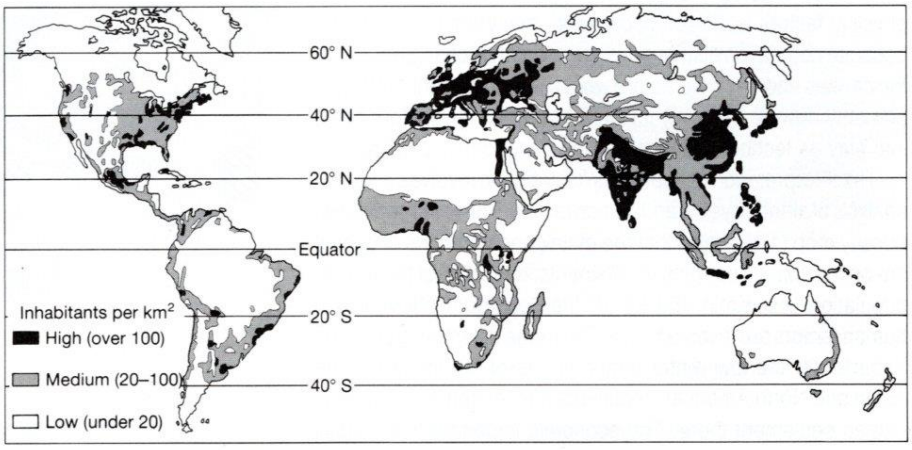
## Useful abbreviations, some of these are interchangeable

PQDI Physical Quality of Life Indicator
HDI Human Development Index
EMDC Economically More Developed Country (eg UK)
ELDC Economically Less Developed Country (eg Ecuador) **or**
**LIC Low Income Countries**
NIC Newly Industrialised Country (eg South Korea) **or**
**(NEE New Emerging Economies)**
GNP Gross National Product
GDP Gross Domestic Product
PHC Primary Health Care

## World Population Distribution

Population density (crude) is a measure of the average number of people per unit area (usually 1 square kilometre). The average population density of Europe is 34 persons per km² (although Western Europe has a population density of 178 per km²) but this hides wide variations on either side of the average: from 14 persons per km² in Norway to 509 persons per km² in the Netherlands.

The population distribution within any given area is usually uneven, with large numbers of people living in some parts and very few in others.
The world's population is very unevenly distributed.
The two most populous China and India are home to more than 36% of the world's population.




**75% of the world's population live within 1000km of the sea**
**85% live at altitudes less than 500m above sea level**
**85% live between 20°N and 68°N (less than 10% in the Southern Hemisphere)**

**Negative environments such as upland areas, very cold areas and areas of low rainfall, tend to be avoided.**

## Factors influencing Population Distribution

There are many factors (human as well as physical) which influence population distribution. The influence of **physical factors** such as latitude, relief, continentality, water supply, soil quality, seasonal variations in temperature and precipitation, and availability of mineral resources is greater in some places than in others, but in all areas, **people exert some control over their habitat.**

**Factors which were important 100 years ago may now be relatively insignificant** while new factors come into play as technology advances and economies change.

The range of temperatures and in particular the low winter temperatures of the interior of the Asian and North American continents has tended to discourage human settlement there.

The **economic importance of coastal locations** for trade and communications is a factor which attracts people.

Changes in population distribution are often linked with advances in technology.
Changes in technology continue to influence the location of industry, and hence population. e.g. The settlement pattern established in the UK during the Industrial Revolution of the 19th century was influenced by the coalfield location of industries and the importance of London as a commercial centre.

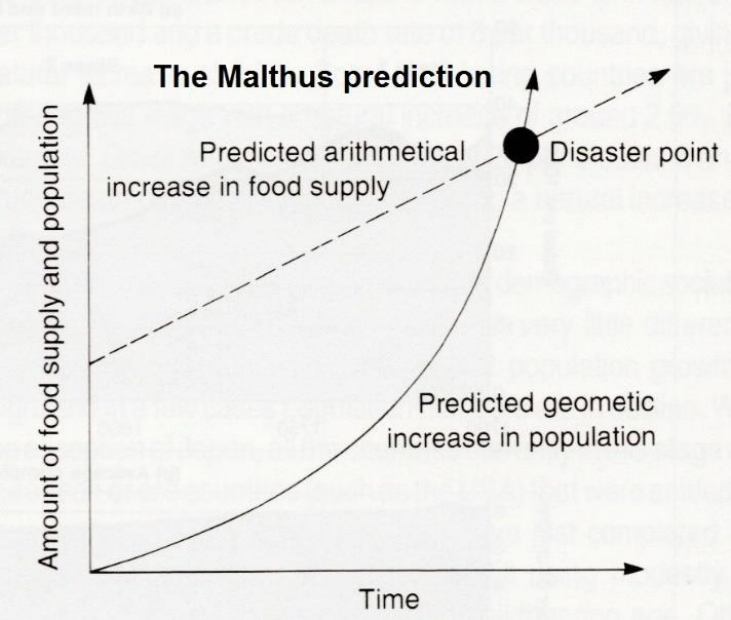
This has been reinforced by the consumer-orientated industries of the twentieth century, which tend to be sited near to population concentrations.

Even the establishment of New Towns to house overspill populations was in some way a response to the continuing pull of the cities which thrived in the Industrial Revolution. This population inertia means that most population distributions are only fully explained by reference to the past.

## World Population Change

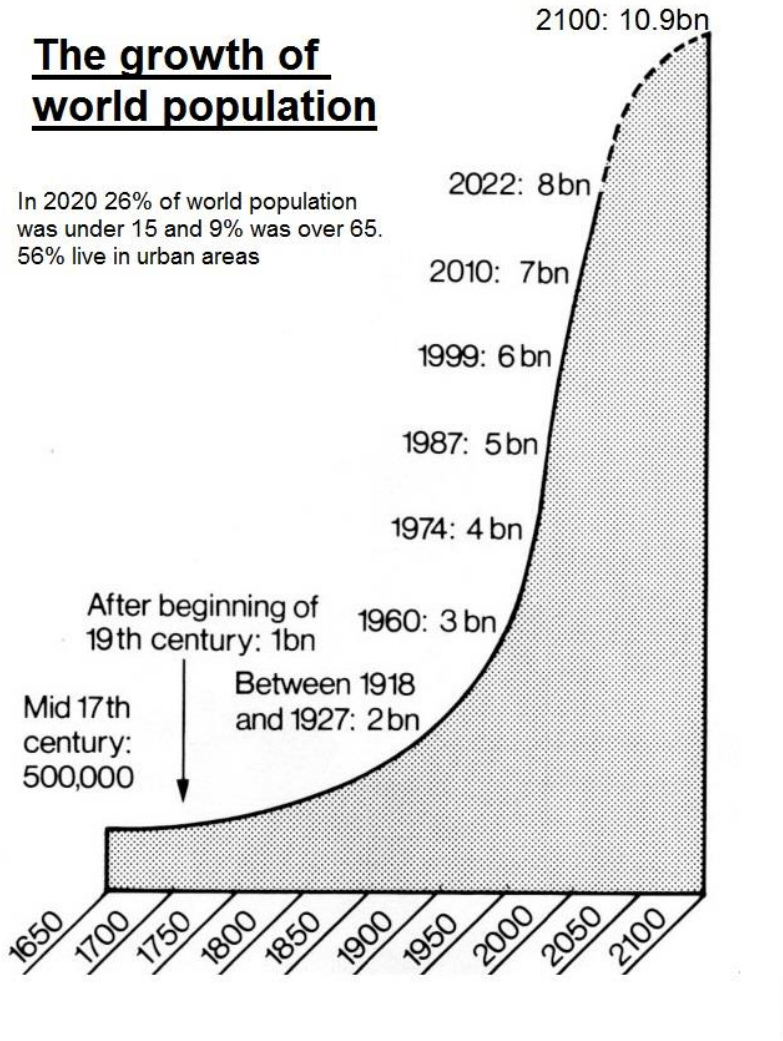
There is a tendency to think of population change as population growth because this situation has dominated world history for the last two hundred years.

**Concern about population growth is nothing new**. In 1798 Thomas Robert Malthus published the first edition of his 'Essay on the Principle of Population'. In it, Malthus suggested that food supply increased at an arithmetic rate while population tended to increase at geometric rate; and that therefore, if population growth was unchecked, it would outstrip food supply. As the amount of food available per person fell, Malthus suggested that the population would be checked by either voluntary action or 'natural cheeks' such as war, starvation and disease (which he called the 'positive checks of misery and vice').




His views on population growth were conditioned by the period he lived in when Britain was moving from an agricultural to an industrial society. Malthus was unable to foresee the technical and scientific advancements which have permitted agriculture in Britain to increase production at a greater than arithmetic rate.

World population reached
1000 million by about 1820,
2000 million in 1930,
3000 million in 1960,
4000 million in 1974,
5000 million in 1987 and
8000 million in 2022.
The peak of world population is expected in 2100 at around 10.9 billion people.




**This increase in world population will place considerable strain on the finite resources of the planet.**
**Estimates by the UN expect the average individual in 2050 to use 71% more resources than they do today.**

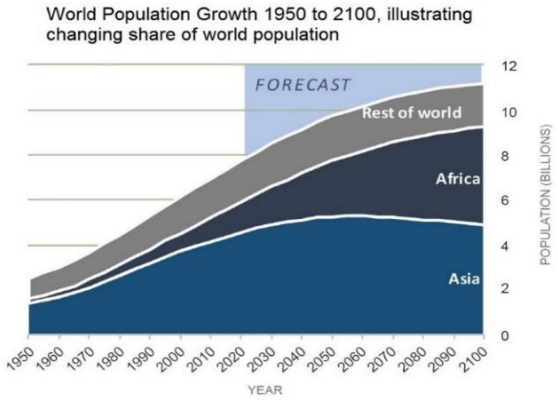
**The accelerating growth rate has been caused by progressive reductions in death rates.**

The terrible pandemics (worldwide epidemics) which have kept the population in check through history have been almost absent since the twentieth century. (Except for the Spanish Flu pandemic 1918-20 which may have killed between 50 to 100 million worldwide, around 200,000 in the UK.
The HIV/AIDS epidemic which started around 1970 is estimated to have killed around 33 million people.
While the Covid 19 epidemic killed around 6.6 million people, with around 161,000 deaths in the UK. These pandemics have been serious but improved

healthcare has limited deaths to a small fraction of the 8 billion world population in 2022.
Earlier pandemics such as the Black Death 1331-1353 may have killed up to a third of the world's population and earlier plagues may have killed up to 40% of those infected.)

The differential growth rates are causing a progressive shift in the distribution of world population.

| % of world popn. | 1920 | 2020 | Current Growth Rate | Popn. Density |
|---|---|---|---|---|
| Europe | 18% | 9.6% | 0.06% | 34 per km² |
| South America | 5% | 5.3% | 0.83% | 24 per km² |
| Africa | 8% | 17.2% | 2.49% | 44 per km² |
| Asia | 53% | 59.5% | 0.86% | 104 per km² |




80% of the growth in world population over the last 30 years has occurred in the **LIC's** and 95% of the growth over the next 20 years will also take place in these countries.

By 2100, Nigeria may be the third most populous nation.

There is an inbuilt population momentum since children (0-14) account for over 26% of the world population (averaging around 39% in the LIC's), and these children will in due course start families of their own.

**Why is Gathering Population statistics important?**
To allow governments to plan ahead – provision of services
To set appropriate taxes and arrange their collection
To monitor social and cultural changes

**Methods of gathering statistics**
Census – effectively a people count, but a range of useful data is collected

Registration – used to record births, deaths, migration etc.

Sampling – surveys if a small sample of the population

**Problems with gathering statistics**
High cost of a census
Lack of literacy in some parts of the world
Size of some nations is vast with widely dispersed populations
Migration of pastoralists etc.
Suspicion of governments intention
Wars, conflict etc.

## Measuring population change

There are three factors which influence population change: the number of births over a given period of time **(fertility)**, the number of deaths over the same period **(mortality),** and the number of persons moving in or out of the area **(migration).**

The crude birth rate is the number of live births per thousand people in one year; it is simply the ratio between the number of live births and the total population (usually a mid-year estimate).

The total fertility ratio is calculated by dividing the number of children under 3 by the number of women between the ages of 15 and 44 years (childbearing age). This calculation gives a score of 1.7 for Europe, 2.1 for Asia and 5.1 for West Central Africa.

The crude death rate is the most widely used index of mortality; it is simply the number of deaths per thousand inhabitants in one year.
Other indicators of mortality which are commonly used to compare countries are the infant mortality rate and the average life expectancy at birth.

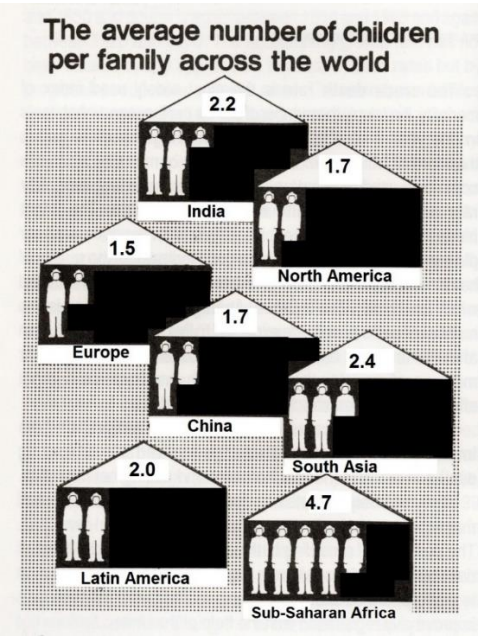
Net migration is calculated by subtracting emigration from immigration. Total population change is arrived at by subtracting deaths from births (natural increase) and adding net migration.


Civil registration systems which record births, deaths and marriages tend to be much less reliable than national censuses. The problems of recording births and deaths in remote areas of the low income countries (LIC's), where a high proportion of the population is illiterate, are considerable.

Many countries are attempting to improve civil registration with the help of the United Nations, but censuses and sample surveys are likely to be the main source of vital statistics for some time to come.

## Patterns of Fertility and Mortality

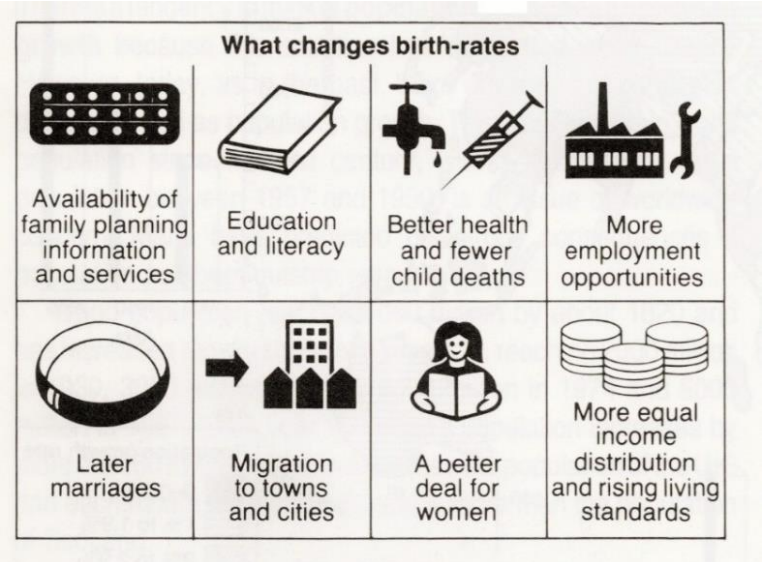
Fertility
In 2020 the global rate was just under 2.5 children per woman. This is half of what it was 50 years ago and is predicted to fall to 1.9 children per woman by 2100.



Developed countries have seen a progressive reduction in birth rates since the late nineteenth century.
Low and middle-income countries (LMIC's) have also seen a fall in birth rates in the last century, but the gap between the birth rates of the most developed and even the newly emerging economies (NEE's) is still significant.
The crude birth rate for India, for example, fell from 47 per thousand in 1920 to 33 per thousand in 1988 and 18.7 per thousand in 2020 but this is still more than twice that of Germany. This is a fall in TFR from 6 children per woman in 1960 to 2.35 in 2020. However, the momentum in population growth from having such a large youthful population will mean that India's population will likely grow for a further 40 years, overtaking China as the most populous country in the world by 2030.

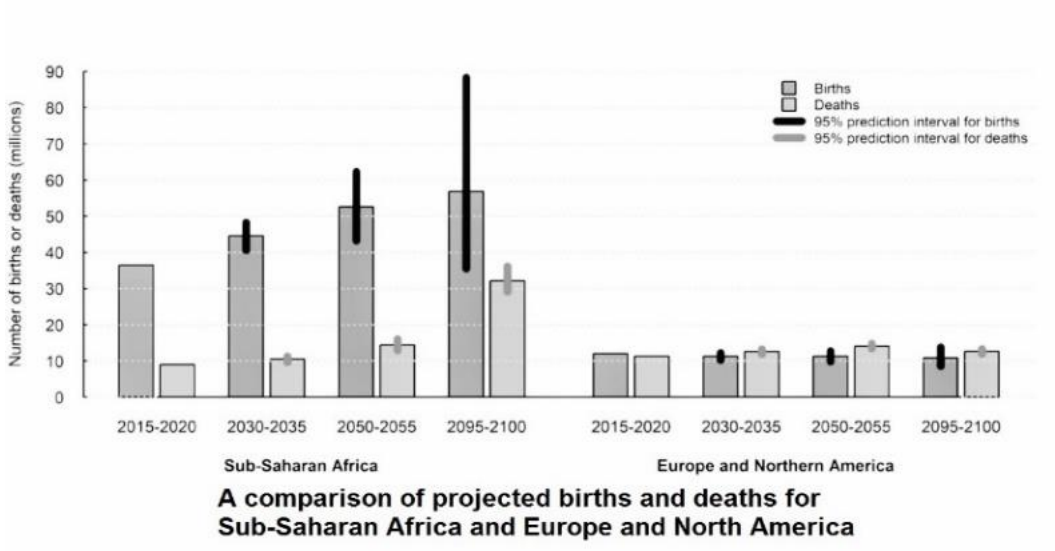
Countries with a very high birth rate (over 40 per thousand) are largely confined to West and Central Africa.
Countries with low birth rates (less than 13 per thousand) are found in Europe, North America and other well-developed nations e.g. USA 12.4; Germany 8.6; South Korea 8.3; Japan 7.5; China 12.1.

The main factors promoting this decline in fertility are probably -
**empowerment of women leading to**
**later marriage,**
**increased use of birth control methods,**
**the desire for higher economic status with**
**increasing labour market participation**.



## Mortality

Mortality differs from fertility as a component of population change in that it tends to be more stable and predictable. In most parts of the world, death rates are lower than birth rates thus leading to population growth. The decline in death rates throughout the world in the past century has been largely responsible for the rise in world population. The graphs below show that in Europe and North America deaths are projected to overtake births by 2035.

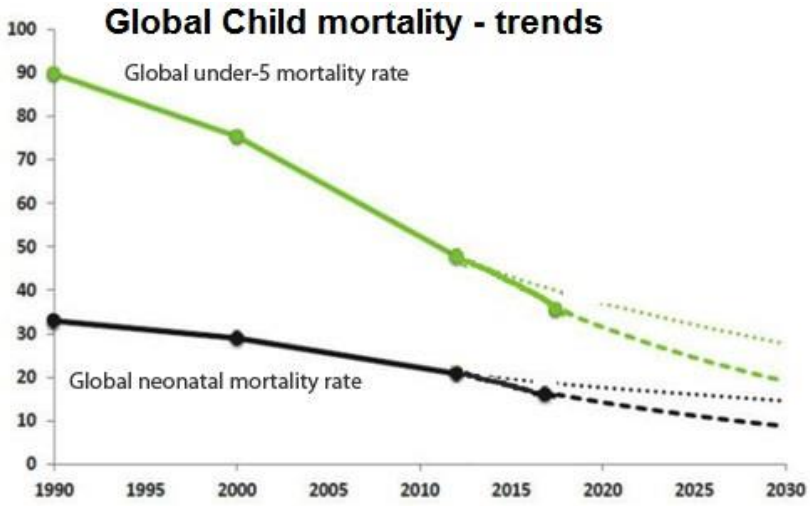



**A comparison of projected births and deaths for Sub-Saharan Africa and Europe and North America**

In Sub-Saharan Africa births significantly outnumber deaths and in 2020 births numbered around 38.47 million compared to deaths at 9.45 million.

The decline in death rates has resulted in dramatic changes in life expectancy.
In 1900 life expectancy (world average) was about 30 years of age
by 1950 it was 46 years
and by 1988 it had increased to 63 years,
in 2020 it is around 72.6 years.

**The lowering of death rates means that there are more people to support and in some countries population growth has outstripped resources and economic growth, creating a further set of problems for their governments.**

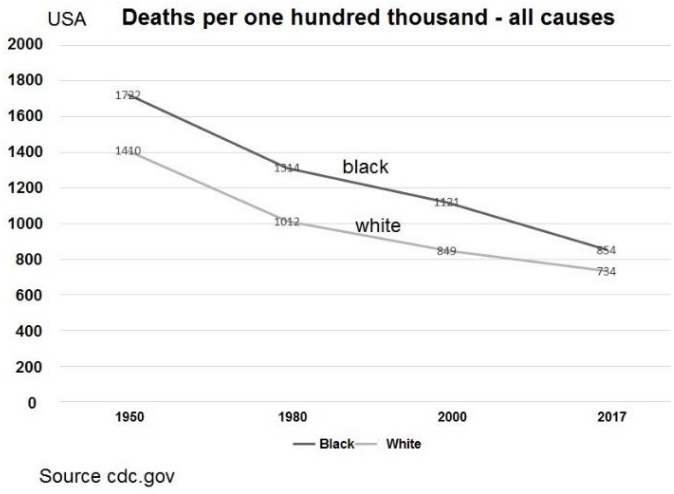



**In developed countries, the death rate is unlikely to fall further because the percentage of the population over 60 is increasing (an ageing population).**

**Differential Mortality**

Although death rates are becoming more equal on a global level, **there are still disparities within countries, determined by social class, economic status, racial group, and location of residence (urban or rural).**

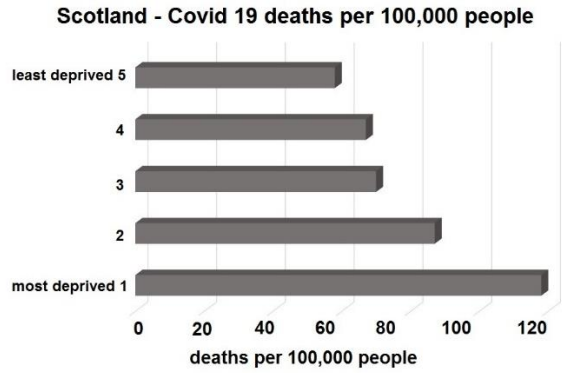
The gap between the death rates of blacks and whites in the United States has narrowed significantly in recent years and this has ruled out biological differences as the cause of differential mortality.




Source cdc.gov

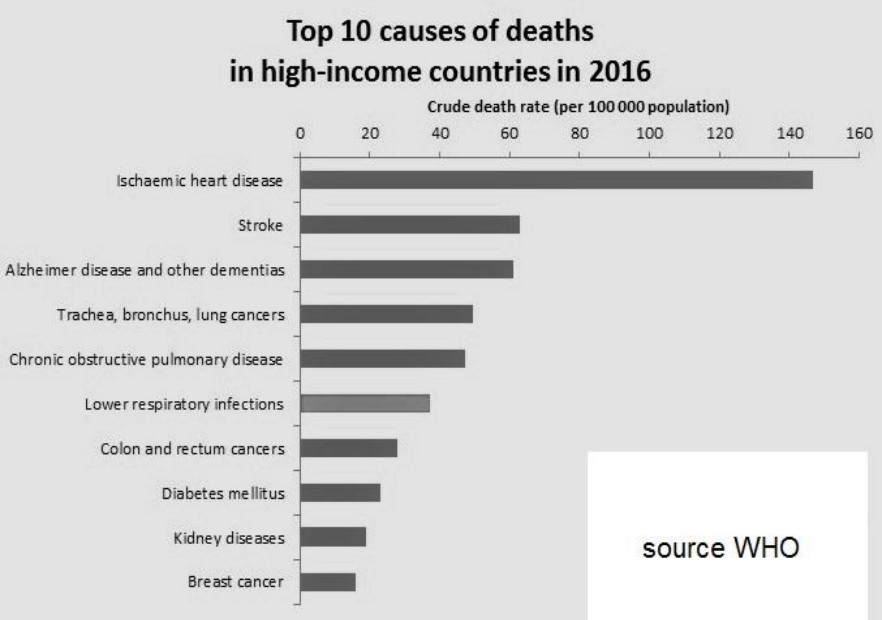
It is obvious now that social, economic and environmental factors are the main causes. The higher incidence of hypertension, obesity and heart disease amongst poor black Americans made them particularly vulnerable to the COVID 19 pandemic and therefore had much higher mortality rates than their white compatriots.

Deprivation is also a key factor in differential death rates and the data for Scotland in June 2020 showed a higher death rate in the most deprived areas.



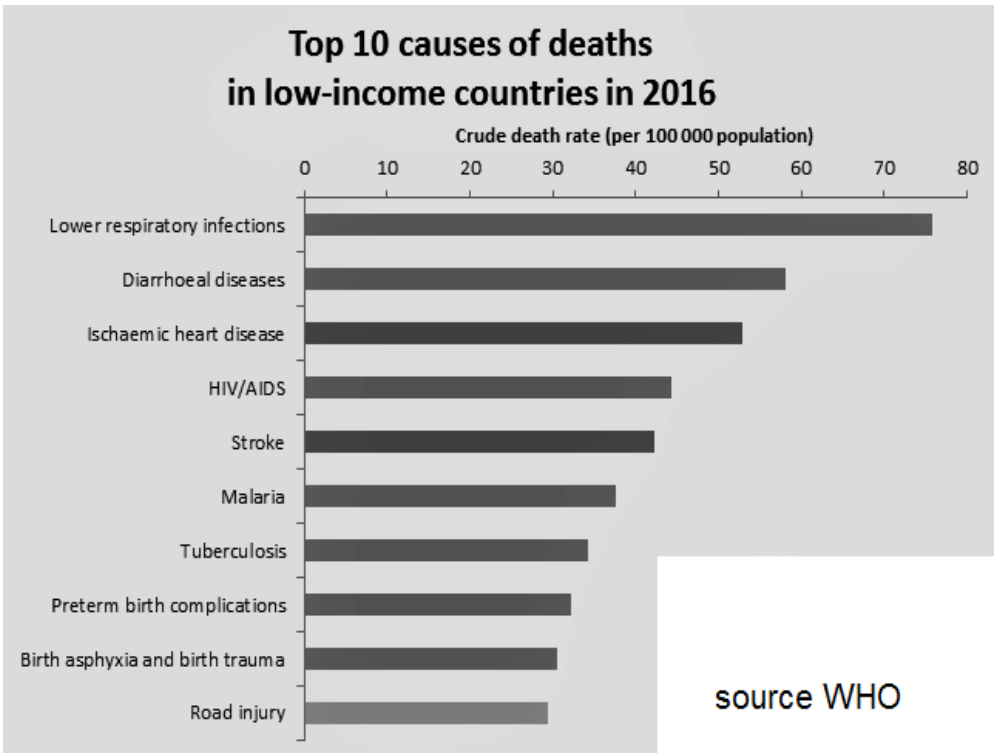

**Causes of death**

Causes of death can be divided into two broad categories:
**exogenetic** (environmental, i.e. from accidents or illness brought on by external factors) and
**endogenetic** (degenerative, i.e. from illness that are not infectious).
In developed countries, where many of these infectious diseases are under control degenerative causes of death are most common. Heart disease, cancer, pulmonary and vascular diseases fall into this category.




In low and middle-income countries (LMIC's) with higher death rates, some deaths are due to exogenetic causes but as death rates become lower these causes become less significant.

One hundred years ago about 30% of all deaths in the UK were due to infectious diseases, now this figure is about 0.1%. However, the percentage of deaths from heart disease, cerebrovascular and cancer has risen to about 75% of all deaths in the UK.



Increased tobacco smoking in the LIC's is also a factor which leads to an increase in the deaths from lung cancer. Changes in diet may also be responsible for the increase in the number of deaths from cancer. It is thought that a diet rich in fatty and processed foods and low in fibre can increase the likelihood of developing cancer.

Deaths from diarrhoeal diseases are much more common in the low income countries (LIC's) than developed countries, while respiratory diseases are more common in developed countries (particularly north-west Europe). These differences probably reflect differences in climate and sanitary conditions as well as economic level.

**Population Composition**

The term population composition, or **population structure, is used to describe population characteristics which can be measured**, however inadequately. This tends to mean the aspects of the population for which census data are available. **Normally studies of population composition refer to the age structure, sex composition, occupation structure and ethnic composition**.

**Age structure**

The term age structure refers to the number of males and females in different age groups in a given population. The age structure of any population is a result of population change over the lifetime of the oldest member of the population and it is a demographic history of a population over that time period.

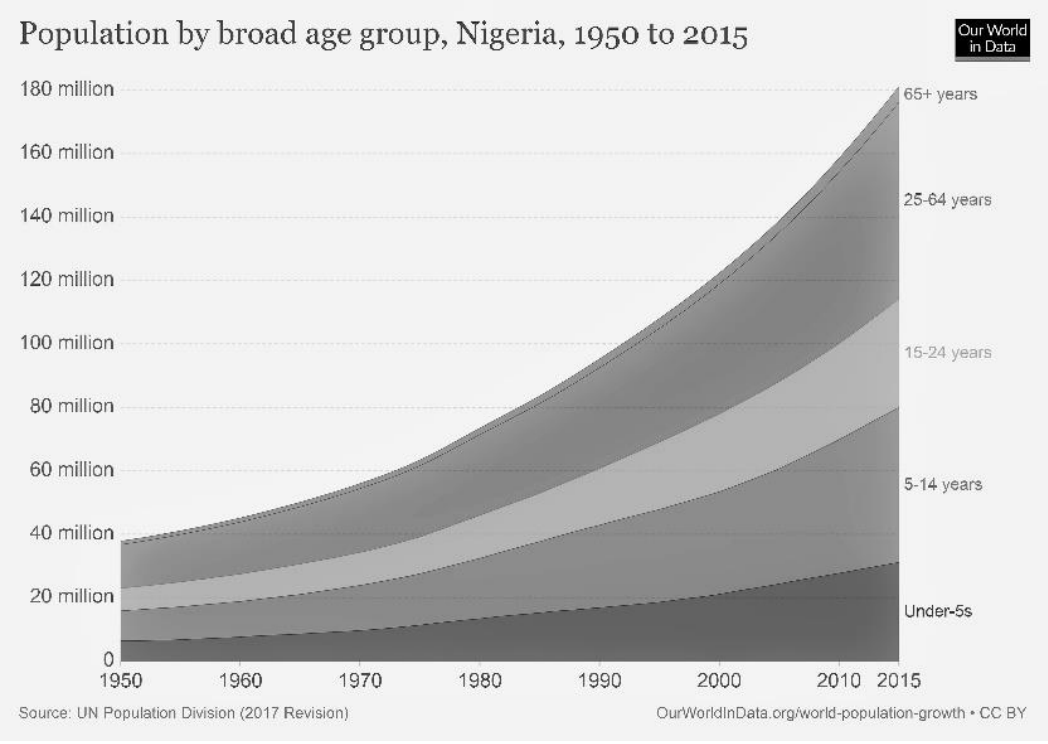
Age structures are often analysed by comparing the proportions of the three main age groups in the population:
infants and adolescents (0-14 years),
adults (15-64 years),
the aged (65 and over).

1. A developed type (such as in Europe) where children make up 16.1% of the population, adults 65.2%, and the aged 18.8%.

2. A transitional type (NEE) (such as many countries in Asia) with 23.7% children, 67.7% adults, and 8.6% aged.

3. A low income type (such as many African countries) with 40.5% children, 56% adults, and 3.5% aged.

The lowest proportion of adults is to be found in the less developed type where around 55% of the population is economically inactive. This is because these populations are youthful (they have a high proportion of children). This creates a considerable burden on the working population.




Age indices are sometimes used to illustrate the relationship between the three age groups. The dependency ratio is the most common age index; it is a ratio of the economically inactive population to the economically active and is calculated as follows:

Dependency ratio = % children + % aged / % adults

The following are a selection of dependency ratios:
UK 0.57, China 0.41, Niger 1.1.

This means, for example, that for every adult in Niger there are on average 1.1 dependents to support.

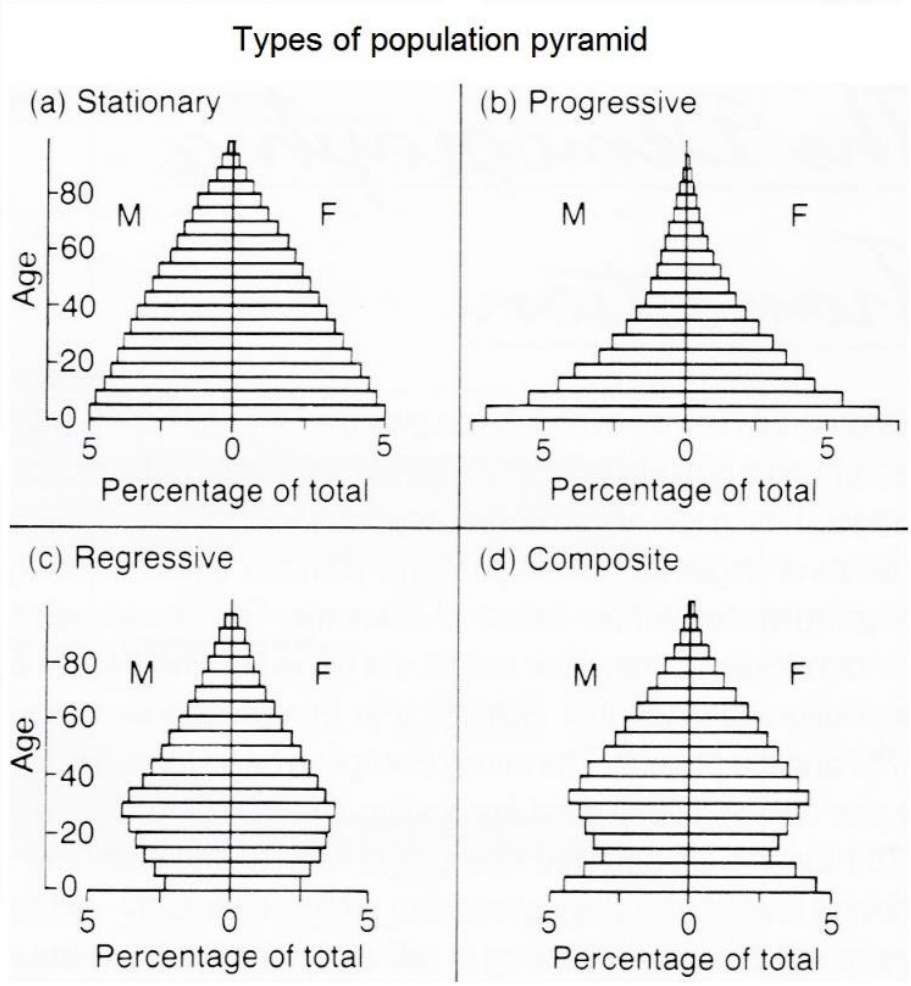
**Population pyramids**

The age structure can be studied in more detail employing population pyramids.
Three basic types of population pyramid can be distinguished.

**Stationary**. If a population has relatively unchanging birth and death rates over a long time its population pyramid will be regular and tapering. It has a wide base indicating a high birth rate. The gentle slope to the apex indicates a mid-range death rate.

**Progressive pyramid**. If the birth rate is high from year to year and the death rate is also high the population type will become progressive and the pyramid will widen at the base. The sharply tapered point indicates that death rates are still relatively high.

**Regressive pyramid**. A consistent decline in birth rates usually accompanied by lowering mortality rates will result in this type. The pyramid is bell-shaped with a narrow base. In this example, the lowering of the death rate has not yet had an impact on the apex of the pyramid, which will widen with time.



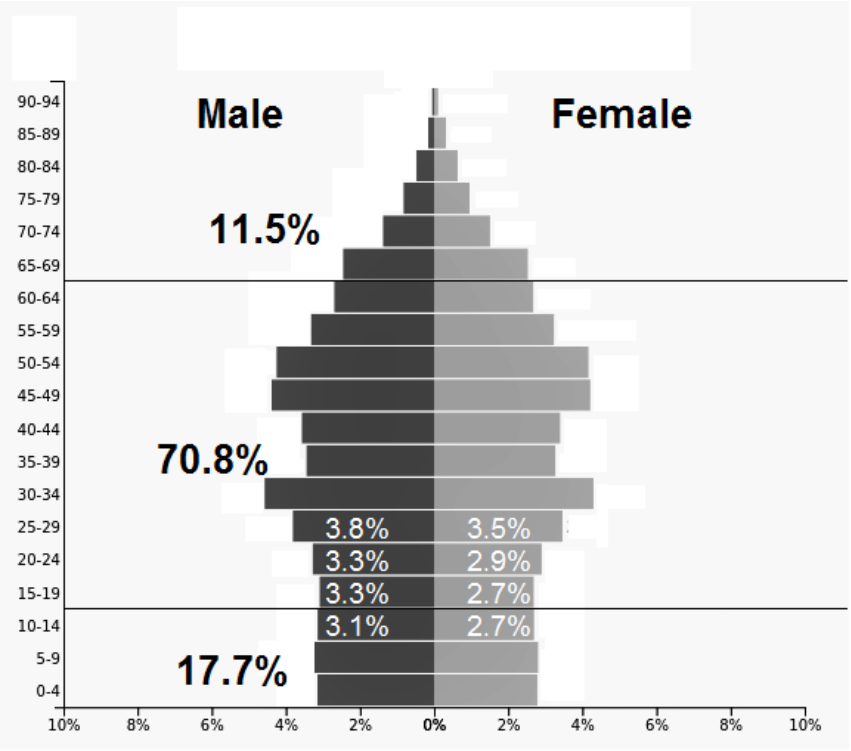

**Composite pyramid**. Changes in birth and death rates will alter the shape of the population pyramid and result in a composite pyramid which will display attributes of two or more of the basic types. The composite example shown illustrates a Population that had a period of declining birth rate followed by an increase in the birth rate.

**Gender composition**

The **sex ratio** (sometimes referred to a gender ratio) of a population is usually expressed as the number of males per 100 females.

Between 1979 and 2015 the “one-child” policy in China caused a significant change in the sex ratio. Sex-selective abortions and the preference for a single male child raised the sex ratio at birth as high as 117 (currently 115). The consequence of this reaction to the “one-child” policy is there is a large and

growing gender gap among young people seeking a spouse – leading to a "**bride shortage**".

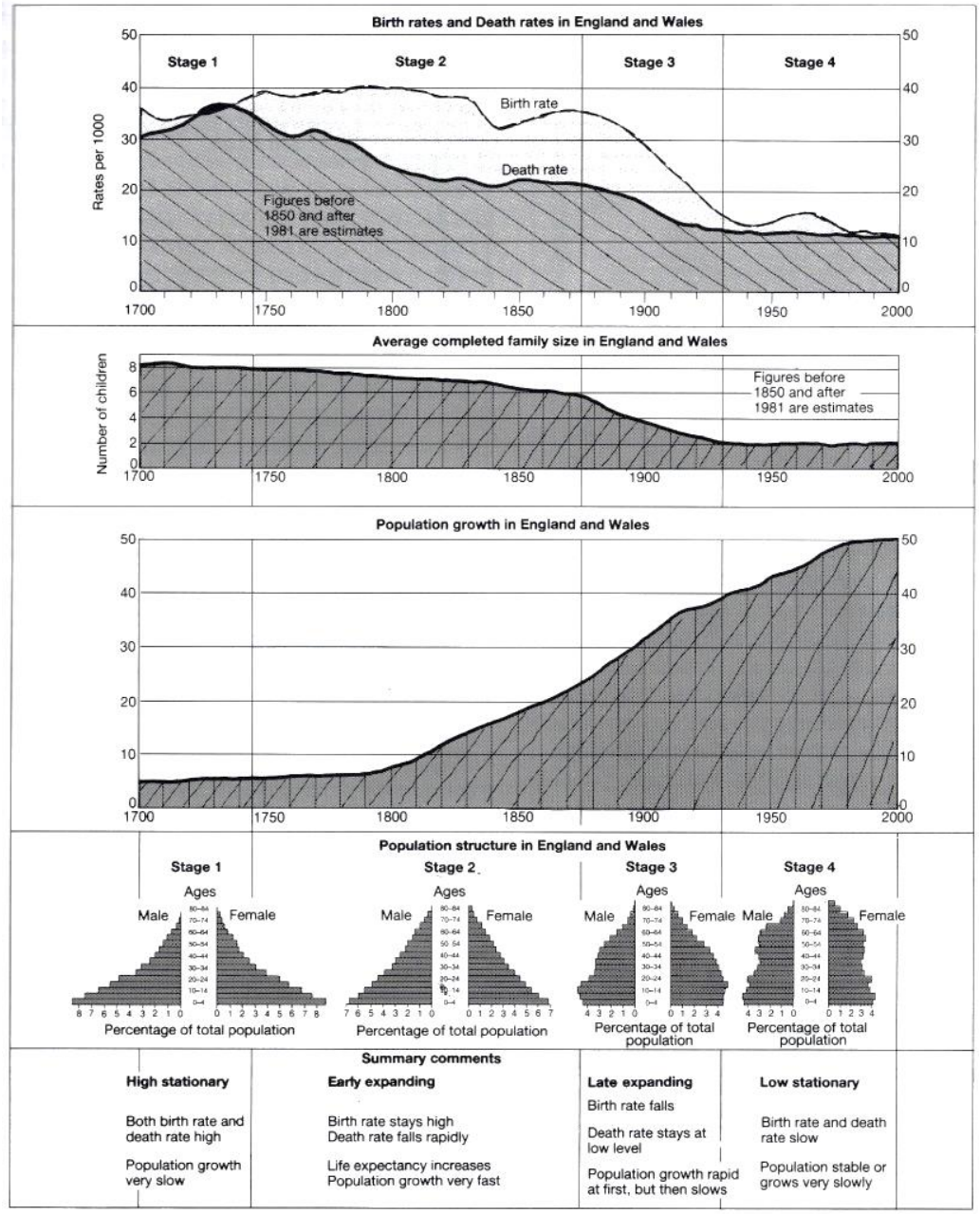


Population pyramid for China 2019

**The Demographic Transition**

Although all theories of population evolution have potential flaws, the most useful model of this type is the so-called demographic transition model.
The four stages of the demographic transition model are based on the pattern of population changes that took place in Europe between about 1700 and 2000. The purely European basis for this model is one flaw in its universal application.

## The demographic Transition in England and Wales




**Stage 1 - high mortality and high birth rates** - the 'primitive' society', is characterised by high and fluctuating birth and death rates, over 30 per thousand. At this stage, the population pyramid is broad at the base but since mortality is high at all ages – and the mortality rates for children were particularly high - the pyramid narrows rapidly to a peak.

Not even the most isolated of countries fit into this category today as death rates and birth rates are falling in all parts of the world.

**Stage 2 - has high birth rates but falling death rates** the "**early expanding societies**" which have a rapidly increasing population. The death rate has been lowered by improved medical care and living standards, but birth rates remain high because there hasn't been time for a cultural change which would bring down fertility rates. A danger for countries in this stage is that their population can increase faster than their wealth and thus they become poorer. In Britain, this stage lasted for some 130 years until approximately 1880. Many poorer low income countries (LIC's) are in this category today, with a marked excess of births over deaths. Examples include Mali with crude birth and death rates of 43 per thousand and 10 per thousand respectively and Afghanistan with crude birth and death rates of 33 per thousand and 6.7 per thousand respectively.

**Stage 3 - has death rates low and falling birth rates**, represents "**late expanding societies**" in which, although population growth rates are slowing, the population is still rising: the transition to low growth or static population is not complete.
Many newly emerging economies (NEE's) are currently in this stage with a natural increase of around 1.0% -2.0%. For example, Bolivia with a crude birth rate of 23 per thousand and a crude death rate of 7 per thousand, giving a natural increase of 1.5%.

**Stage 4 - has low birth and death rates** representing "**low stable or mature demographic societies**" which have very little difference between the two rates. This means that population growth is slight or are in decline.
Countries, such as Britain, which completed the transition around 1940, have a relatively stable population with periods of slight growth alternating with periods of population decline.
Many other countries from Asia and South America are entering or are firmly established in this phase. Such as South Korea with a birth rate of 7.9 per thousand and a death rate of 5.5 per thousand and Uruguay with a birth rate of 14 per thousand and a death rate of 9.4 per thousand.

The Demographic Transition Model has proved to be surprisingly independent of the continental location, culture and religion of the population. The speed of the transition varies greatly between countries, but all countries follow the

same pattern, with a decline in the death rate that starts a population boom, followed by a decline in birth rate which brings the population boom to a close. In all countries that have moved through the four stages of the demographic transition, the population boom is a temporary characteristic, although this boom varies greatly in duration from country to country.

**What Is the Demographic Dividend?**

The demographic dividend is the accelerated economic growth that may result from a decline in a country's birth and death rates and the subsequent change in the age structure of the population.

With fewer births each year, a country's young dependent population declines in relation to the working-age population. With fewer people to support, a country has a window of opportunity for rapid economic growth if the right social and economic policies are developed and investments made.

**Fertility Must Decline for Countries to Attain the Demographic Dividend**.

While a young population can be a great force for economic and political change, the key first step toward the demographic dividend is not a large youth population. The first step, in fact, is a transition from high birth and death rates to low birth rates and child death rates.

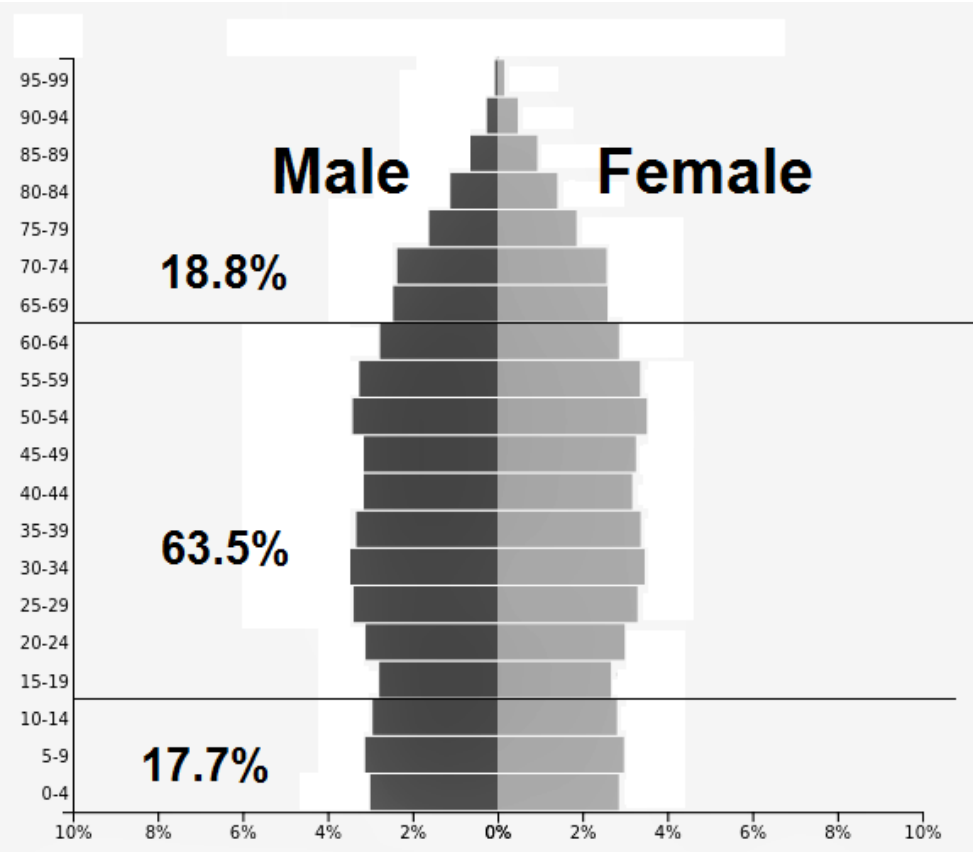
The demographic dividend in many developing countries remains a possibility, but **for the process to begin, countries must give high priority to the lowering fertility and child mortality by**

- **Investing in child health and survival programs.**
- **Committing to voluntary family planning**
- **Investing in the reproductive health needs of both married and unmarried young people.**
- **Prioritize education—especially for girls**

**Consequences of the Demographic Transition**

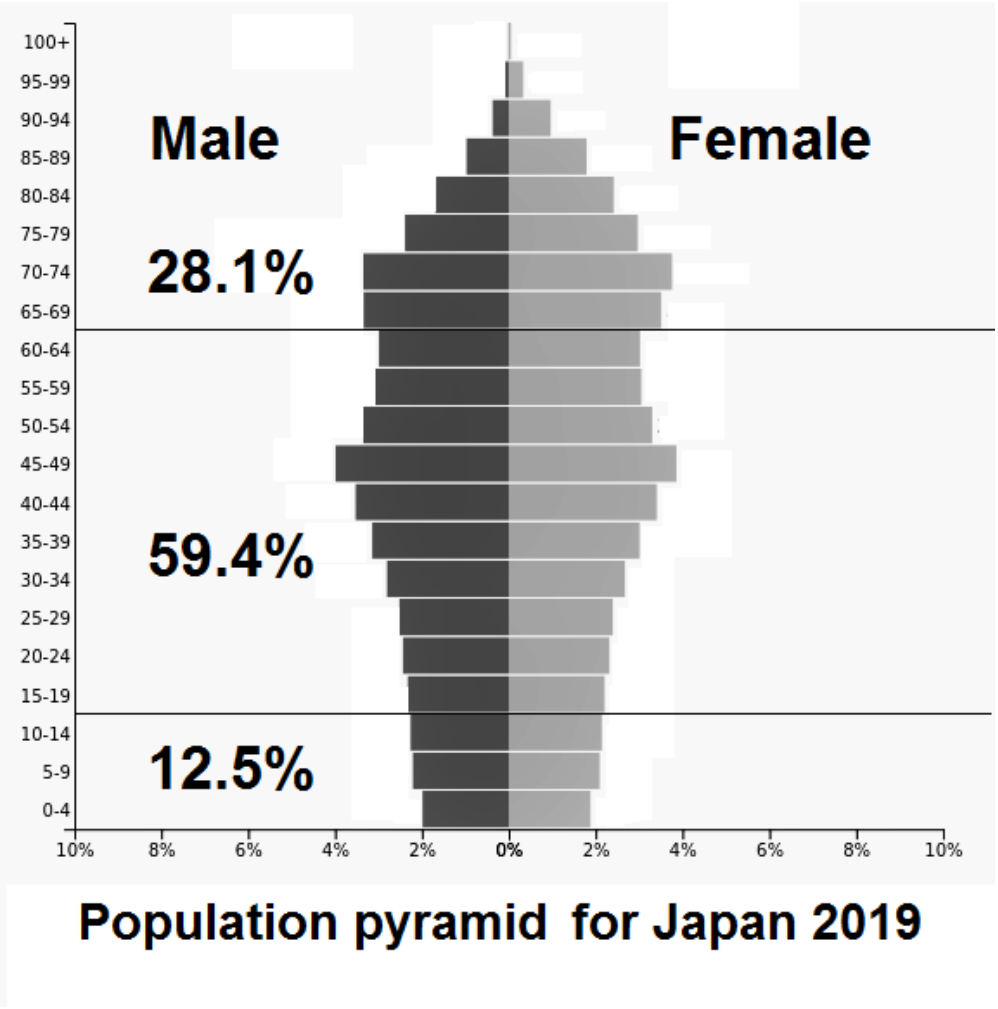
There is a major problem in that the countries currently in the latter stages of the demographic transition contain most of the world's population, and the population growth experienced by these countries is much faster than European countries experienced during their transition.

Some developing countries which are rich in resources do not see population growth as a problem facing them but seek greater progress with development. Although many developing countries have progressed from stage 2 to stage 3 of the demographic transition, others with growth rates of over 3% and limited resources may not be able to achieve a reduction in fertility before natural controls such as mass starvation significantly increase the death rate or populations choose to migrate.



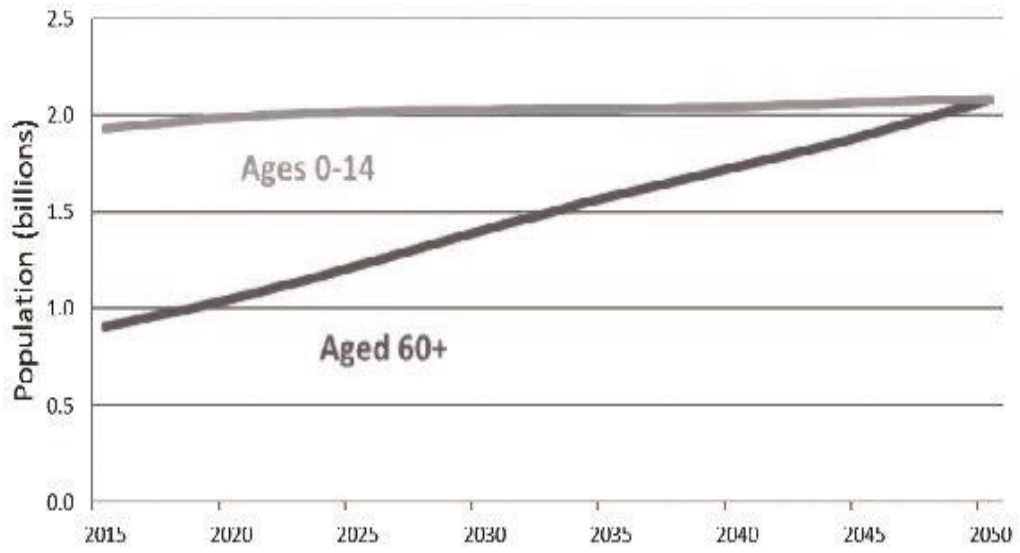

**Population pyramid for United Kingdom 2019**

The acceptance of retiring in your 60's in developed countries is being challenged very slowly, as retirement ages creep upwards. Governments will not find popularity by increasing the retirement age but the type of retirement facing a fit, healthy and talented older generation is very different from the one faced by the first pensioners. Perhaps our ageing populations have to be viewed differently and regarded as more of an asset than a drain on resources. The Japanese are already dealing with an ageing population where 28.1% of the population is over 65 years of age and only 12.5% under 15 years of age.




**Population pyramid for Japan 2019**

The world's population is ageing as fertility declines and life expectancy increases. More than half of the world's population is composed of adults between 15 and 59 years of age (61 per cent), while children under 15 years of age represent roughly one quarter (26 per cent). Older persons aged 60 or over account for just over one-eighth of the world's inhabitants (13 per cent); however, this age group is growing faster than all younger age groups. Hence, the number of older people is likely to double by 2050. The size of the population under age 15 is expected to stay relatively stable throughout the century at about 2 billion.




**Trends in the world's younger and older populations, 2017-2050**

**Migration**

**Migration is a normal human activity and it will not go away**.

It is worth reflecting on a quote from William Lacy Swing, Director General, International Organisation for Migration (IOM) 2017
"As long as you look on migration as a problem, as something to solve, you are not going to get anywhere. You have to look at it as a human reality that's as old as humankind. It's mankind's oldest poverty reduction strategy. As citizens, we have to find a way to manage it."

**Migration is usually defined as being a movement of population involving a change of residence of substantial duration**. This definition excludes the constant movement of pastoral nomads or seasonal short-term movements such as transhumance (winter/summer movement), tourism or commuting.

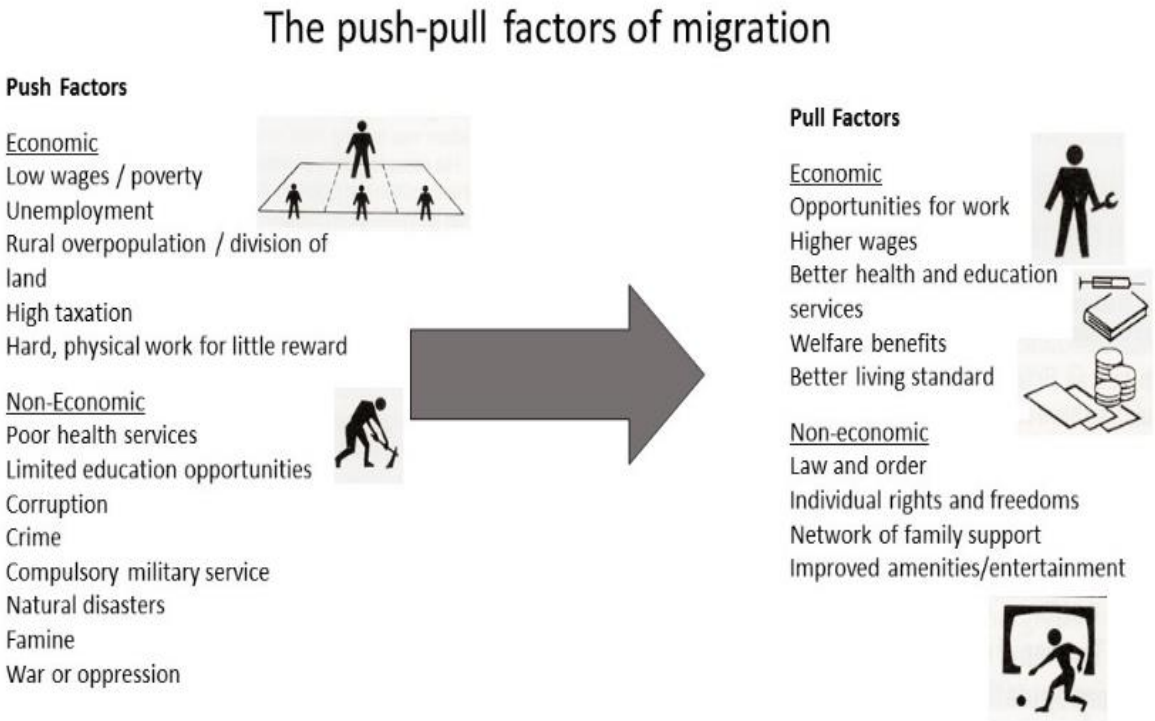
International and internal migrations are not necessarily different in terms of their causes or consequences but there is a specific terminology for international migration. **Emigration means the departure from** and **immigration means the entry into** a country to change permanent residence. The term 'permanent residence' in this context usually means more than one year.

Migration patterns can be selective in terms of both age and gender: apart from migration for retirement, most migration streams consist of young adults. The study of migration has thrown up generalisations which give a broad representation of migration patterns, but these don't always hold.

**Most migrants only travel a short distance** – there is "distance decay" – Ravenstein's Law of migration
**If they do move a long distance they are more likely to move to a big city** (Gravity model)
**Most migrations proceed step by step** (Lee's model)
**Every migration flow produces a counterflow** e.g. rural migrants move to cities and city dwellers move to the suburbs.
**Most migration is rural to urban**
In developed countries, short-distance internal migrations are predominantly female.
In developed countries, long-distance internal migrations are predominantly male.
In developing countries, internal and international migrations are predominantly adult males.
Professional classes in developed countries are more migratory than are skilled or unskilled workers.
Families are less likely to make international moves than young adults.
**Migration patterns change as a country gets more developed** (Migration Transition Model – after Zelinsky) – Initially high daily/season migration (search for food) - Stage 1
Then high international emigration and high internal migration: rural to urban - Stage 2/3
Followed by high international immigration and high internal migration: cities to suburbs - Stage 3/4

**Push and pull factors**

**The conditions which cause migration can involve both 'push' and 'pull' factors.** The 'push' factors are adverse conditions in the sending area which stimulate individuals and families to change their place of residence. These factors could include; low income, poor employment prospects, housing shortages, inadequate social amenities, intolerance of political/racial/ethnic minorities, social upheaval/strife, natural disasters, adverse climatic conditions; and this list is by no means exhaustive. The 'pull' factors are real or imagined attractions of the destination and could include; high wages, employment opportunities, improved housing, a wide range of amenities, tolerance of minorities, high standard of living, and physically attractive environment.



## Internal migrations

**Rural-urban migration. The most characteristic movement of people within their own country** has been from rural to urban areas. The migrants move from areas of perceived deprivation to areas of perceived promise.
The UN projects that 68% of all of the world's population will live in urban areas by 2050. In 2022 Tokyo is the world's largest city with 37 million inhabitants, followed by New Delhi with 29 million.

**One in eight people live in 33 megacities worldwide**, but close to half of the world's urban dwellers reside in much smaller settlements with fewer than 500,000 inhabitants.
Many countries face challenges in meeting the needs of their growing urban populations, including housing, transportation, water and energy supply as well as other infrastructure requirements. Policies to improve the lives of both urban and rural dwellers are needed.
Policies to manage urban growth need to ensure access to infrastructure and social services, focusing on the needs of the urban poor and other vulnerable groups for housing, education, health care, employment and a safe environment.

### Counterurbanisation

In the most developed countries where urban populations are a very high proportion of the total, inter-urban migration and urban to rural migration is gaining in significance. This counterurbanisation, where people move away from cities to areas that appear more rural, is not simply a rejection of an urban lifestyle, because often these people still choose to live within range of urban areas for jobs and services.

## Migration in developing countries

Migration can also have an impact on both the sending and the receiving areas in developing countries. The influx of population in the cities of developing countries has posed great problems for housing, public transport, water supply, sewerage, and severe social problems. The shanty towns of makeshift homes, which grow up on the outskirts of fast-growing cities in low and

medium-income countries, are evidence of rural-urban migration which failed to live up to its promise.

**Rapid urbanisation causes problems such as shortage of services** i.e. housing, health, water and social problems such as unemployment, street children, child labour, problem gambling, drug abuse, prostitution, robbery and spread of disease such as AIDS.

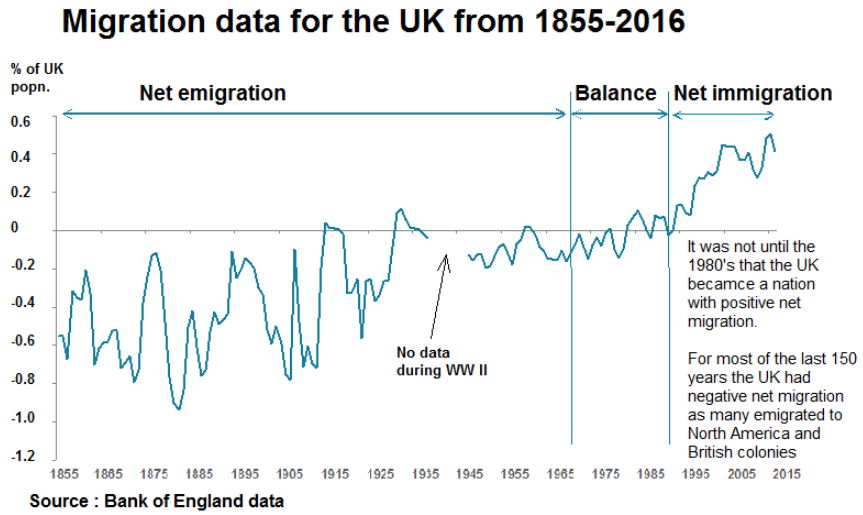
**Climate change when added to this growth of megacities in developing countries poses significant risks for the growing population**. Sao Paulo in Brazil with a population of 22 million now has a significant problem of inadequate water supply, exacerbated by Amazonian deforestation, which has reduced rainfall.

**Migration can however play a positive role in relieving population pressure** in rural areas and improving the standard of living of the migrants.

**International Migration**

The world has undergone periods of significant migrations such as the vast numbers involved in the nineteenth and early twentieth centuries. The USA received around 50 million immigrants between 1840 and 1914.

Immigrants from Commonwealth countries, particularly the West Indies, India and Pakistan, were encouraged to come to the UK in the late 1950s and 1960s because there were jobs to be filled after the Second World War. But by the late 1960s the British government had begun to restrict immigration on the grounds that it would create social tension and exacerbate unemployment.




**Recent International migration**

In 1960 there were around 90 million people classed as international migrants and while the 2010 figure of 220 million seems much larger, both figures are 3% of the world's population at that time. International migration does vary from year to year, as low as 2.3% in 1980 and as high as 3.5% in 2020 but the figure of **3% of world population seems to be a close to what the world experiences over the last 60 years or so.**

Europe hosts the largest number of international migrants (82 million), followed by North America (59 million) and Northern Africa and Western Asia (49 million). Migrant populations are growing faster in Northern Africa, Western Asia and in sub-Saharan Africa than in other areas.

Example – Mediterranean migration

From around 2014 the migration across the Mediterranean Sea to Italy, Spain and Greece and onward from there into northern Europe became a feature of international migration. Some of these migrants were refugees from Syria, Afghanistan and South Sudan, while others were classed as economic migrants from West Africa. Of these migrants 25.1% were children, 16.2% were women and 58.7% were men.

Migration peaked in 2015, when more than one million people arrived in Europe, a large proportion of them having travelled along the eastern route through Turkey, Greece, and the Balkans. The number of arrivals has fallen significantly since 2016, albeit with around 160,000 people reaching Europe through Mediterranean routes annually. Because of their geographical position and the procedures for asylum applications in the European Union – countries of first arrival Italy, Greece, and Spain have been most affected. The growth in the number of arrivals has created the public perception of a crisis and "flood" of migrants. As a consequence migration has considerably influenced elections held in Austria, France, Germany, Italy, and other European countries in recent years, boosting support for populist and Eurosceptic parties.


**Factors influencing International Migration**

**the following promote migration:**

Large and increasing income differentials between countries
Good networks to support migrants in host countries
Positive financial benefits from tax, welfare and health care
Remittance of earnings from migrants to families left behind
Overall perceived economic cost benefits

**the following discourage migration:**

Significant migration costs, which often increase with distance
Migration policies which constrain the opportunity to migrate
Demographic factors, the old, sick or poorly educated have less opportunity to migrate
Deteriorating political and social environment in host countries can deter migration

**Refugees**

According to UNHCR (United Nations High Commission for Refugees**), a refugee is a person 'who owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside of his or her nationality and is unable, or owing to such fear unwilling, to avail himself/herself of the protection of that country'.**

Of the current 26 million refugees worldwide, around 60% is made up of three main groups: 2.7 million Afghan refugees (of probably 4.6 m Afghans live outside their country), mostly in Iran and Pakistan; 6.7 million Syrians and 2.3 million from South Sudan. There are a further 5.5 million Palestinian refugees in Jordan, Syria, Lebanon and Israeli-controlled Gaza Strip and West Bank. Some Palestinian refugees have been living in camps for 70 years that are now semi-permanent settlements.
Around 80% of refugees live in countries neighbouring their own country of origin. In 2020 the countries hosting the most refugees were, Turkey 3.7m, Pakistan 1.4m, Uganda 1.2m, Sudan 1.1m and Germany 1.1m. In 2018 341,800 people applied for asylum, the greatest number from Venezuela.

**Population policies**

Population projections often stimulate governments into introducing population policies. **These policies are concerned with influencing population growth, fertility, mortality, spatial distribution and migration**.

Population policies fall into several categories. One category of policies attempts to control population size and growth.
In 2013, 37 per cent of Governments worldwide had policies to lower the rate of population growth, whereas 20 per cent had policies to raise it. The remaining 43 per cent of Governments had policies to maintain the current rate of population growth or did not intervene to influence it.

Countries that wish to increase their population include, Iraq, Kampuchea, Laos, Libya, Gabon, Bolivia, Uruguay and Israel. In Bolivia, in an attempt to increase fertility, family planning clinics have been closed and abortion has been made illegal.

Of the governments with population growth rates below 1 per cent in 2010–2015, 26 out of 83 were not intervening to influence their growth rate. Of the 18 countries with negative population growth rates in 2010–2015, all but Bosnia and Herzegovina had policies to raise it.

**Most developing countries do, however, wish to reduce population growth to assist social, economic and cultural development**

**Some population policies are designed to combat ageing populations.** More than half of the governments worldwide have considered population ageing as a major concern.

Governments, when faced with an ageing population, can encourage improvements in fertility but they still have to deal with the economic cost of a large ageing population. Among the 189 countries with available information in 2013, of 61 countries (47 per cent) had changed their statutory retirement age and 89 countries (38 per cent) had reformed their pension system in the past five years. Governments in 47 (25 per cent) changed both the retirement age and reformed their pension system in the past five years, while a little less than

half (46 per cent) of Governments neither changed the statutory retirement age nor reformed their pension system.

Policies regarding reproductive health and family planning are operated by over 90% of countries worldwide. Some other governments only provide indirect support for family planning through the private sector or non-governmental organizations. A few countries do not support family planning and don't allow family planning programmes or services within their jurisdiction.

Abortion policies continue to be much more restrictive in developing countries than in developed countries. In 2013, 86 per cent of countries in more developed regions allowed abortion when the pregnancy resulted from rape or incest or in cases of foetal impairment, compared with only about 40 per cent in less developed regions.

**Nearly all governments have policies on international migration and most wish neither emigration nor immigration.** Most also have a dedicated agency which monitors and implement migration policy. **Only a few countries encourage immigration:** for example, Israel, Bolivia, South Africa, Gabon, Saudi Arabia and Argentina. **A few other countries encourage emigration**, often temporary migration of manpower to employment in comparatively lucrative jobs: for example, Turkey, South Korea, Algeria and Pakistan. Policy regarding migration has been covered in some detail previously in the book.
Very few governments have attempted policies which intervene in only one part of the demographic process; most have attempted to modify fertility, mortality and migration in combination with economic development.

Website with free downloadable resources –
www.ritchiecunningham.com

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**If you want more a detailed explanation of these issues have a look at my book “Population and Migration” – available as Kindle book or paperback**

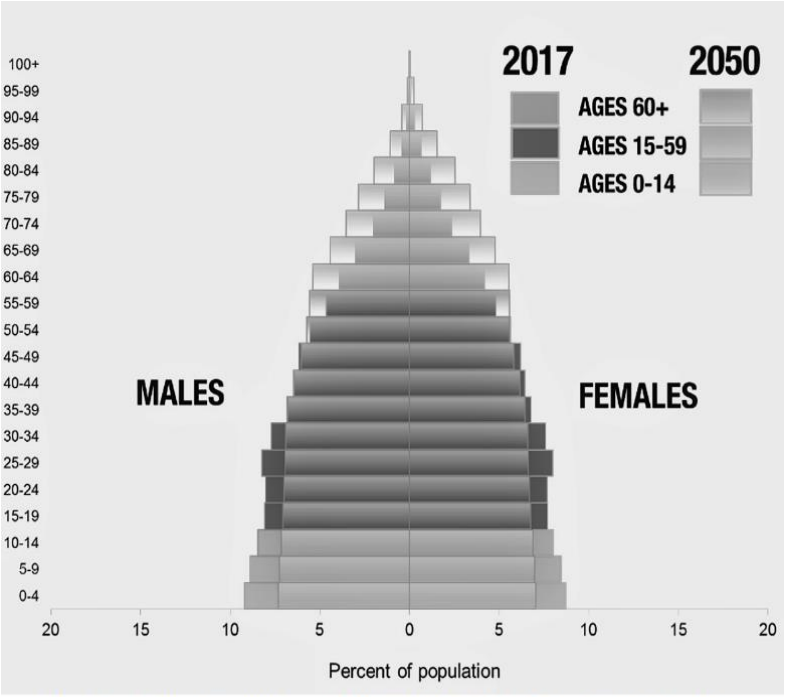
**https://www.amazon.co.uk/Population-Migration-Geography-Studies-Cunningham/dp/B0BK4Y9X9G/ref=sr_1_1?crid=QBHJ84ZFME3G&keywords=population+and+migration&qid=1672155124&s=digital-skills&sprefix=population+and+migration%2Calexa-skills%2C351&sr=1-1**

# Exam Style Questions

Population questions tend to fall into three general sub-topics:
**population structure**
**population change and policies**
**migration.**

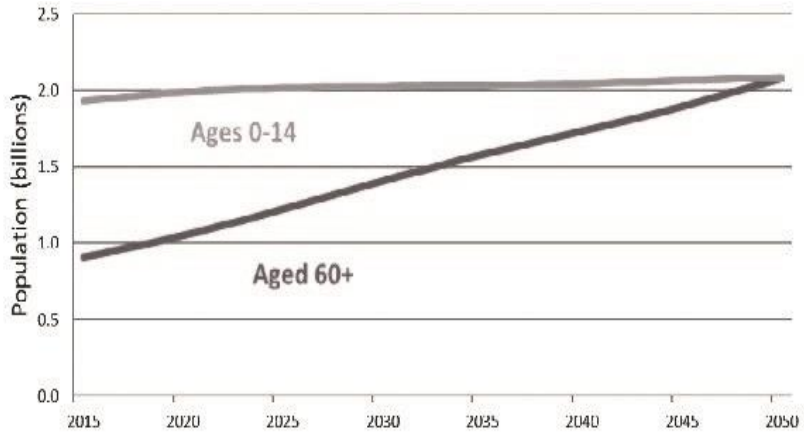
1. Figure A below shows a population pyramid for the world in 2017 and 2050 (projected). Figure B shows Trends in economically inactive groups for a similar period. Analyse the world’s population change shown in the figures. (6 marks)

Figure A



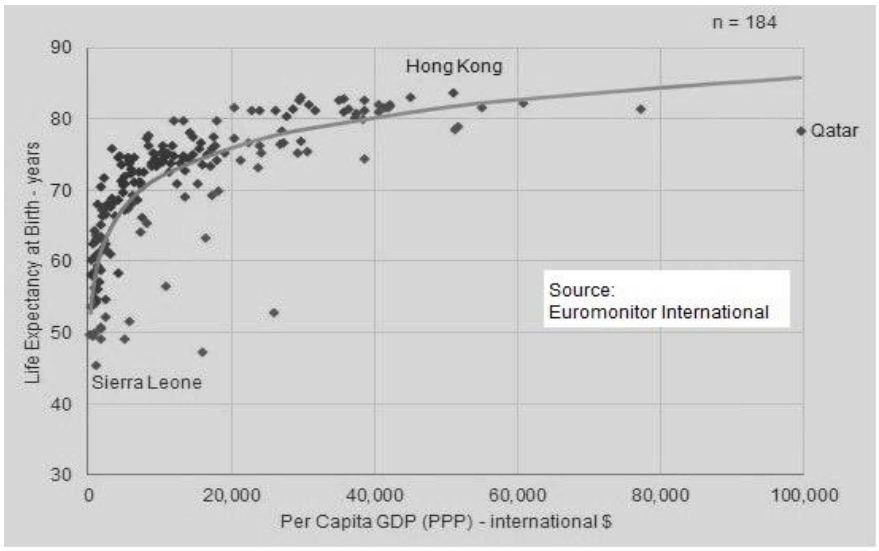

**Changes in the world's population distribution by age and gender**

Figure B




**Trends in the world's younger and older populations, 2017-2050**

2. Using the figure below and your own knowledge, assess links between life expectancy and GDP. (9 marks) Diagram below

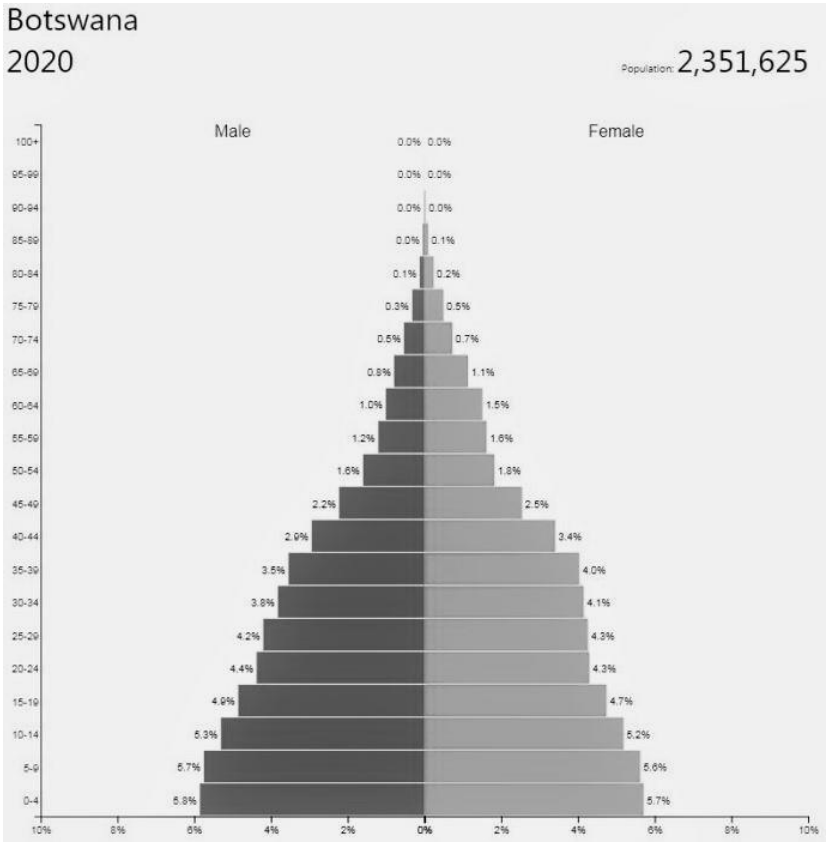


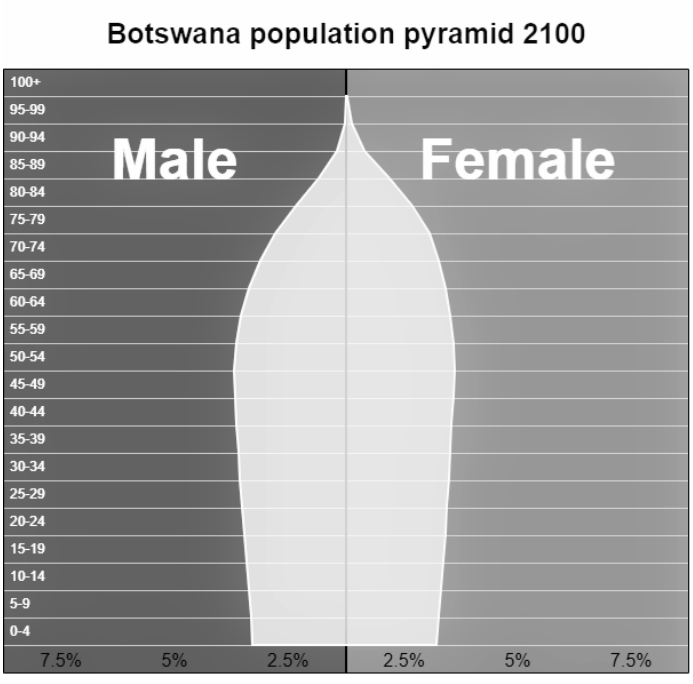

Preston Curve in 2012

3. To what extent can economic migrants enable countries to achieve a Demographic Dividend? (9 marks)

4. "With the world population heading towards a total of 10.9 billion by 2100, the impact of climate change and resource pressure to contend with, perhaps Malthus was right.' To what extent do you agree with this statement? (20 marks)

5. Study the population pyramid for Botswana in 2020 and projected for 2100, below (10 marks)




Total population 4.17 m

a) Describe the population structure of Botswana in 2020. (10)

b) Describe how the projected structure for 2100 differs so much. (8)

## Typical answer

(a)

The base of the pyramid is very broad with the largest number being those of children under 15 ✓.
The largest number is m the 0-4 age group ✓.
The reason for this is that in Botswana there is a high birth rate due to a lack of family planning✓.
Parents often want large families because many children die young m their country and they want some to survive✓.
The top of the pyramid tapers very quickly so that there are comparatively few people living into old age ✓.
This is because "Botswana is a poor country, an LIC ✓ and people die early because the country cannot afford to provide many doctors, hospitals and medicines to treat them when they fall ill ✓.
Total: 7 out of 10
There would likely be 4 marks available for straightforward description, the candidate picks up three of these but fails to note the lack of people of working age, making the population heavily dependent.
4 marks are given for explanatory points, but the candidate could have offered further explanation of high birth rate by mentioning the need for children to help with work on farms and lend help to their parents in old age. High death rates are also due to poor diet and lack of access to clean water/poor sanitation leading to disease.
Specific knowledge of Botswana is not necessary to answer this question well. Being located in Africa you can deduce that it is likely an LIC.

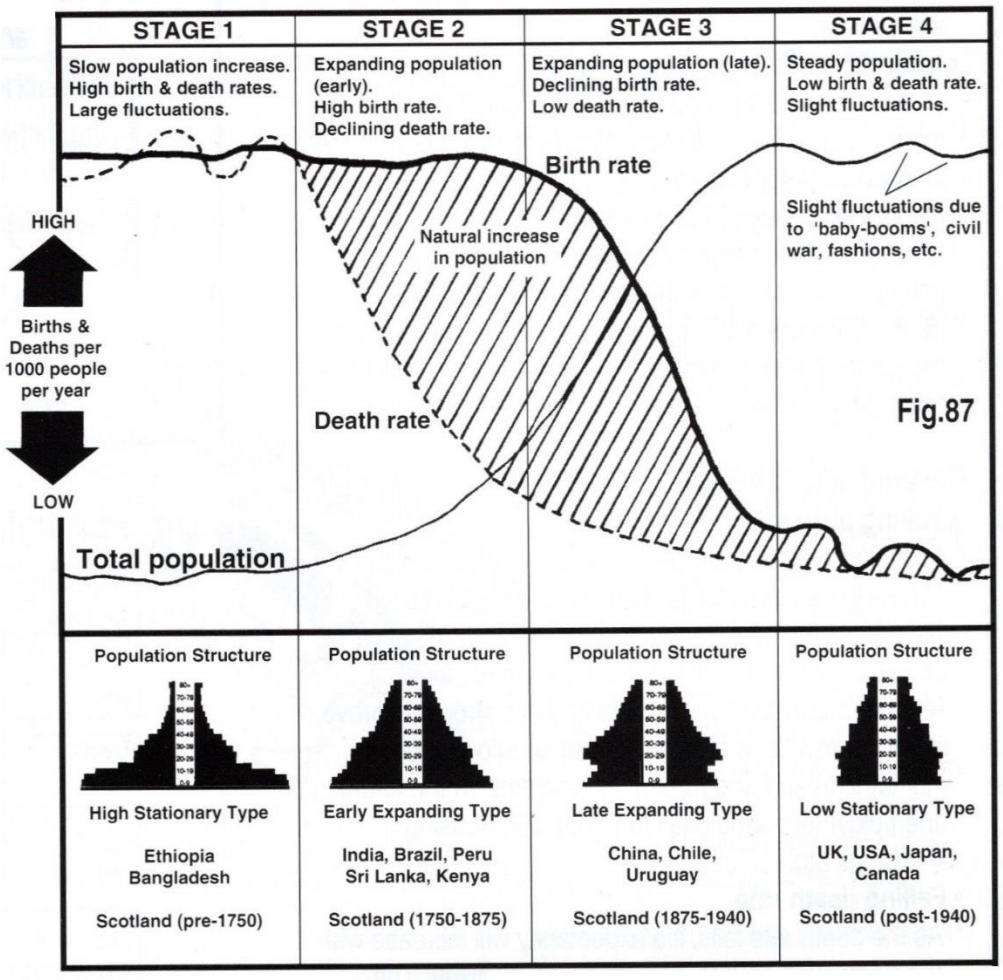
(b)

The population in 2100 will be much larger than in 2000 ✓. The largest percentages of the population are between 20 and 60 ✓. Birth Rate has declined ✓ since there are fewer children in 2100 than in 2000 ✓. There will be more people over 65 than between in 2100 ✓. The population might have been impacted by AIDS ✓, picked up by unprotected sex ✓. Also, children can be born with AIDS, explaining the drop in child numbers ✓.
Total: 7 out of 8
This a good answer? Not really but the technique of making brief correct statements can easily accumulate marks.
Lacking extensive knowledge of the reasons for the differences, this candidate has sensibly made sure they get all they can for description, easily obtaining the 4 marks available. To get the last explanatory mark they could explained the transition to this graph as a further stage in the demographic transition.
If you do not have specific knowledge of the country concerned and you have to explain a big reduction in numbers for specific age groups in its pyramid, you will be credited with intelligent suggestions such as migration, natural disasters and wars.
POPULATION CHANGE
These questions often use as a source a line graph of a country's population or the Graph of Demographic Transition (or parts of it).

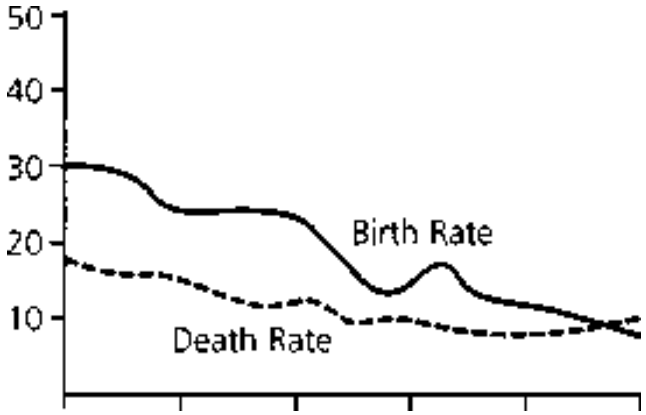
Although questions are posed in a variety of ways the wording is not difficult to understand and they usually boil down to understanding the reasons for the different birth and death rates in LIC's and EMDCs and the advantages and disadvantages associated with the ways their populations are changing.

6a) Study Reference Diagram below
Choose one of the stages from the demographic transition model. Describe and explain the factors which affect population growth at that stage. (8)

b) Study Reference Diagram B.
Describe the problems which can arise from falling birth rates in EDMC's, such as Sweden. (10)




**The Demographic Transition Model**



Reference Diagram B (Demographic transition for Sweden 1890-1990)