Unit 2 Population and Migration Vocabulary and Concepts

Eumene: The proportion of earth's surface occupied by permanent human settlement. This is important because it tells how much of the land has been built upon and how much land is left for us to build on.

Population densities- the frequency with which something occurs in space is density…

Arithmetic density: The total number of people divided by the total land area. This is what most people think of as density; how many people per area of land.

Physiological density: The number of people per unit of area of arable land, which is land suitable for agriculture. This is important because it relates to how much land is being used by how many people.

> *Agricultural density: the number of farmers per unit of area of farmland. *May mean a country has inefficient agriculture.*

Carrying capacity: This is the population level that can be supported, given the quantity of food, habitat, water and other life infrastructure present. This is important because it tells how many people an area will be able to support.

*Affects the population and a country's or area's ability to support that population.*

Sustainability- providing the best outcomes for human and natural environments both in the present and for the future

> *Relates to development that meets today's needs without compromising the ability of future generations to meet their own needs.*

Distribution: The arrangement of something across Earth's surface (space).

Population distributions- the arrangement of a feature in space is distribution. Geographers identify the three main properties as **density**, **concentration**, and **pattern** (*Used to describe how things and people are distributed)*

Major population concentrations (distributions):
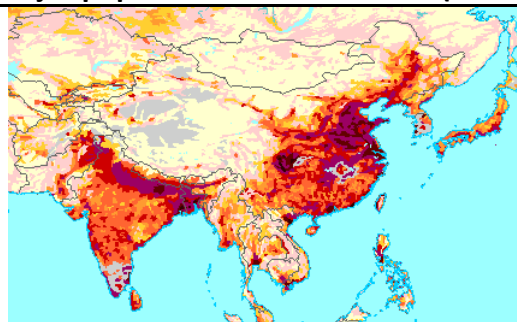
-**East Asia:** largest concentration; China, Japan, North and South Korea (>1.5 billion people). Ribbon-like extensions of dense population (clustered near *rivers*; majority of people are farmers)

-**South Asia:** second major concentration; India, Pakistan, Bangladesh, Sri Lanka (1.5 billion). Also ribbon (finger)-like extensions of dense population (e.g. Ganges River in India), majority are farmers as well.

-**Europe:** third major concentration; Britain to Russia, including Germany, Poland, Ukraine, Belarus, Netherlands, Belgium, parts of France, northern Italy
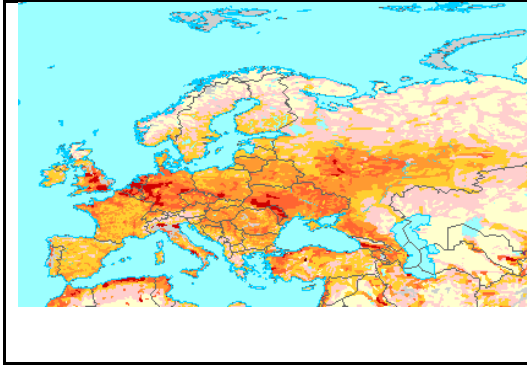
(700 million). Ribbon-like extension deep into Russia (follow Europe's **coal deposits**, not fertile river valleys). Ribbons are concentrated along numerous cities & towns (due to the Industrial Revolution; Germany – 85% urban, UK - >90%).

-**North America** a far fourth; east-central US and southeastern Canada (<200 million). Like Europe, much is concentrated in major cities.

Linear growth: arithmetic growth; increases at a constant amount per unit time (1, 2, 3, 4, …)

Exponential growth: geometric growth; doubles each population (2, 4, 8, 16, …)

Doubling time: The number of years needed to double a population, assuming a constant rate of natural increase. This is important because it can help project countries' population increase over the years and when its population will double. It is a projection and not meant to be an accurate predictor of the future.

Population explosion- a sudden increase or burst in the population in either a certain geographical area or worldwide

Occurred in the late 18th and early 19th centuries because several countries moved on to stage 2 of the DTM. Can trace factors that lead to these explosions.

Population structure (composition or distribution): (Population pyramid) is two back-to-back bar graphs, one showing the number of males and one showing females in a particular population in five-year age groups. This is important because you can tell from the age distribution important characteristic of a country, whether high guest worker population, they just had a war or a deadly disease and more.

Population pyramid- (age-sex pyramid) population displayed by age and gender on a bar graph

Shape is determined primarily by crude birth rate. Shows age distribution and sex ratio.

Cohort: Population of various age categories in a population pyramid. This is important because this can tell what state this country it is whether in Stage 3 or Stage 5 in the demographic transition model.

Baby Boom: people born in the US between 1946 and 1964; this post-war era allowed for better education, employment, peace and prosperity - increasing higher rates of both marriage and fertility.

Baby Bust: period in the US during the 1960s and 1970s when fertility rates dropped as many female baby boomers sought higher levels of education and jobs, marrying later in life.

Generation X: people born in the US between 1965 and 1980; will have the burden of supporting the Baby Boom cohort as they head into retirement.

Generation Y: people born between 1980 and 2001; also referred to as "Echo Boomers" (many are the offspring of Baby Boomers).

Demography: geographic study of population

Natural increase: births minus deaths in a given population.

Crude birth rate (CBR or natality): number of live births per year per 1,000 people

Crude death rate (CDR): number of deaths per year per 1,000 people

Mortality: There are two useful ways to measure mortality; infant mortality rate and life expectancy. The IMR reflect a country's health care system and life expectancy measures the average number of years a baby can expect to live.

Rate of natural increase- the percentage by which a population grows in a year.

CBR-CDR = NIR (excludes migration)

Total fertility rate: (TFR) average number of children born to a woman during her childbearing years (expressed as children per woman). In the U.S it's below 2.1 in much of Africa it is above 4, if South America is between 2 and 3, in Europe it is below 2.1, in China and Russia it is below 2.1, and in much of the Middle East it is above 4. This is important because its shows how many kids a mother is having

Infant mortality rate: (IMR) The annual number of deaths of infants under one year of age, compared with total live births. Its is expressed as the annual number of deaths among infants among infants per 1000 births rather than a percentage. This is important because it tell how developed a country is, if they have a high IMR they are an LDC and if it is low they are an MDC.
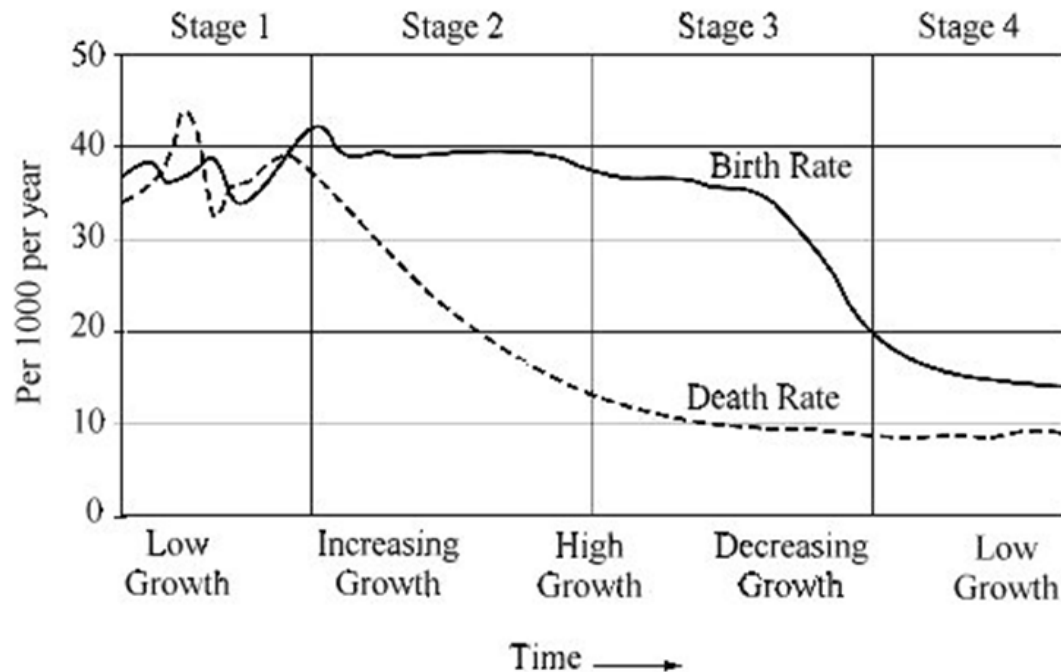
Child mortality rate: annual number of deaths of children under the age of 5, compared with total live births (also calculated as number of deaths per 1,000 births).

Maternal mortality rate: annual number of deaths of women during childbirth per 1,000 women.

Dependency ratio: The number of people who are too young or too old to work compared to the number of people in their productive years. This is important because this tells how many people each worker supports. For example the larger population of dependents, the greater financial burden on those who are working to support those who cannot.

Demographic equation: The formula that calculates population change. The formula finds the increase (or decrease) in a population. The formula is found by doing births minus deaths plus (or minus) net migration. This is important because it helps to determine which stage in the demographic transition model a country is in.

Demographic Transition model: Has 4 steps. Stage 1 is low growth (low stationary), Stage 2 is High Growth (early expanding), Stage 3 is Moderate Growth (late expanding), and Stage 4 is Low Growth (low stationary), and Stage 5 although not officially a stage is a possible stage that includes zero or negative population growth. This is important because this is the way our country and others countries around the world are transformed from a less developed country to a more developed country.

Stage 1   Stage 2   Stage 3   Stage 4

Per 1000 per year

50
40   Birth Rate
30
20   Death Rate
10
0

Low   Increasing   High   Decreasing   Low
Growth   Growth   Growth   Growth   Growth

Time ———▶

Epidemiological transition (model): essentially the same thing as the demographic transition, however it specifically denotes a human phase of development witnessed by a sudden and stark increase in population growth rates *brought about by medical innovation in disease or sickness therapy and treatment*, followed by a re-leveling of population growth from subsequent declines in procreation rates.

-The **first transition** occurred when advancements in antibiotic research in the mid twentieth century, most notably in the discovery of penicillin, led to widespread and dramatic declines in death rates from infectious diseases.

- The **second transition** occurred when human birth rates drastically decline, as the inherent need
for manual physical labor drops. This transition is more complicated, and entails the sociological adaptations associated with demographic movements to urban areas, and a shift from primary and
secondary production output to technological and service-sector-based economies (tertiary, quaternary, and quinary).

Demographic momentum: this is the tendency for growing population to continue growing after a fertility decline because of their young age distribution. This is important because once this happens a country moves to a different stage in the demographic transition model.

Demographic regions: Cape Verde is in Stage 2 (High Growth), Chile is in Stage 3 (Moderate Growth), and Denmark is in Stage 4 (Low Growth). This is important because it shows how different parts of the world are in different stages of the demographic transition.

J-curve: This is when the projection population show exponential growth; sometimes shape as a j-curve. This is important because if the population grows exponential our resource use will go up exponential and so will our use as well as a greater demand for food and more.

S-curve- traces the cyclical movement upwards and downwards in a graph. So named for its shape as the letter "s"

Relates to growth and decline in the natural increase.

Overpopulation- relationship between the number of people on Earth, and the availability of resources

> *Problems result when an area's population exceeds the capacity of the environment to support them at an acceptable standard of living.*

Underpopulation- it is the opposition to overpopulation and refers to a sharp drop or decrease in a region's population

> *Unlike overpopulation, it does not refer to resources but to having enough people to support the local economic system. If there are not enough tax payers, then the area cannot continue.*

Stationary population level (SPL): when the crude birth rate equals the crude death rate and the natural increase rate approaches zero. (aka **Zero population growth**; *Often applied to countries in stage 4 of the demographic transition model)*

Population theorists:

> **-Thomas Malthus:** food production = linear; human reproduction = geometric; despite natural checks (famine, disease) … will always be overpopulation; he brought up the point that we may be outrunning our supplies because of our exponentially growing population.
> **-Boserup:** human growth stimulates agricultural intensification (Malthus upside-down)
> **-Marx:** anti-capitalist; lack of food is due to unequal distribution; human growth is not a problem
> **-Cornucopian theory:** Earth has an abundance of resources; can never be used up

Neo-malthusian- theory that builds upon Malthus' thoughts on overpopulation. Takes into count two factors that Malthus did not: population growth in LDC's, and outstripping of resources other than food

> *Recognizes that population growth in LDC's is from the transfer of medical talents from MDC's but not the wealth that would provide food and resources.*

Migration Patterns: (immigration = into a region; emigration = out of a region)

> **-Intercontinental-** Permanent movement from one country to a different country on the same continent.
> **-Interregional-** Permanent movement from one region of the country to another.
> **-Rural-Urban-** Permanent movement from suburbs and rural area to the urban city area.

Laws of migration: 1885; Ernst Ravenstein (studied internal migration in England)

> 1. net migration amounts to a fraction of the gross migration
> 2. the majority of migrants move a short distance
> 3. migrants who move longer distances tend to choose big cities
> 4. urban residents are less migratory than inhabitants of rural areas
> 5. families are less likely to make international moves than young adults

Gravity Model: (Ravenstein) Predicts that the optimal location of a service is directly related to the number of people in the area and inversely related to the distance people must travel to access it.

Push factors: incentives for people to leave a place (e.g., harsh climate, economic recession, political turmoil)

Pull factors: attractions that draw migrants to a place (pleasant climate, employment, education)

Catalysts of migration: many exist such as economic conditions, political circumstances, armed conflict & civil war, environmental conditions, culture and traditions, technological advances, flow of information (through technology) …

Friction of Distance- is based on the notion that distance usually requires some amount of effort, money, and/or energy to overcome. Because of this "friction," spatial interactions will tend to take place more often over shorter distances; quantity of interaction will decline with distance.

Distance Decay- The diminishing in importance and eventual disappearance of a phenomenon with increasing distance from its origin. Typically, the farther away one group is from another, the less likely the two groups are to interact. (Electronic devices such as the internet and e-mail have aided in eliminating barriers to interaction between people who are far from each other.

Step migration: migration to a destination that occurs in stages (e.g., from farm to nearby village and later to town and city)

Chain migration: migration event in which individuals follow the migratory path of preceding friends or family to an existing community (initial migration created a "chain reaction") *Can be seen from Mexico to the United States when guest workers set up homes and make money for their family to follow them.*

Intervening opportunity: the presence of a nearer opportunity that greatly diminishes the attractiveness of sites farther away

Voluntary migration: movement in which people relocate in response to perceived opportunity)

Forced Migration: People removed from their countries and forced to live in other countries because of war, natural disaster, and government. (Atlantic Slave Trade, Jewish Diaspora)

Counter migration: migration back to an original area in which people had left (e.g., migration increases after natural disasters, yet many eventually return after a time)

Cyclic movement: movement that has a closed route and is repeated annually or seasonally (e.g., **activity (action) space** – space within which daily activity occurs; commuting, seasonal, nomadism)

Periodic movement: movement that involves temporary, recurrent relocation (e.g., military service, migrant workers, college attendance, **transhumance –** movement of pastoralists and their livestock between highland and lowland pastures)

Migratory: a change in residence intended to be permanent

· **Refugees:** people who leave their homes because they are forced out (but not because they are officially relocated (Nazis forcing Jews into ghettoes) or enslaved. Most refugees 1) move without any more tangible property than what they can carry or transport with them; 2) make their first "step" on foot, by bicycle, wagon, or open boat; and 3) move without the official documents that accompany channeled migration.

> **-internal:** displaced within their own countries
> **-international:** crossed an international boundary during **dislocation**; seeking **asylum** in a different country

Population policies: typically sponsored by governments

-Expansive: encourage large families and raise the rate of population growth (e.g., USSR under Stalin and China under Mao Zedong)

-Restrictive: reduce the rate of natural increase (e.g., India promoted sterilization, now has focused on education, advertising, and family planning; in China – the **One-Child policy** since 1978)

-Eugenic: favor one racial sector over others (e.g., Japan, US up until the civil rights movement (1960s), Nazis are an extreme example of eugenics)

Census tract: areal unit that best approximates a neighborhood in size through small county subdivisions