



Involves describing and assessing consequences of population characteristics (e.g. sex, age, race, ethnicity, occupation, education, religion, marital status, and living arrangement). The demographic forces of fertility, mortality and migration, determine population characteristics

Age and Sex Composition

- refers to the number or proportion of males and females in each age group or cohort
- age and sex are the most basic characteristics of a population
- every population has a different age and sex composition and this structure can have considerable impact on a country's demographic and socioeconomic situation, both present and future
- population age structure is depicted by POPULATION PYRAMIDS



What is a Population Pyramid?

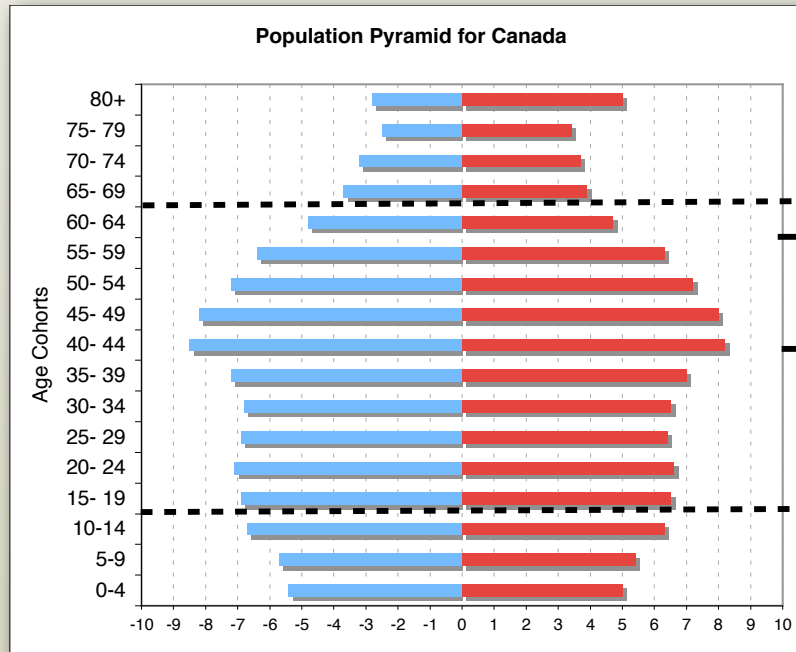
A population pyramid is a special kind of bar chart that shows the number of males and females in each 5-year age cohort from birth to over 80 years in age.

Show:

1. **Dominant Demographic Groups** (e.g. seniors, baby-boomers, teens, children)
2. **Median Age**: where half the population is older; the other half younger (e.g. low medians, rapidly growing populations)
3. **Sex-Age Ratio**: ratio of males to females (e.g. world 105:102)
4. **Age Dependency**: economically and socially dependent ages (e.g. <15 and >65)



Typical Population Pyramids



Top (dependent)

Middle (workforce)

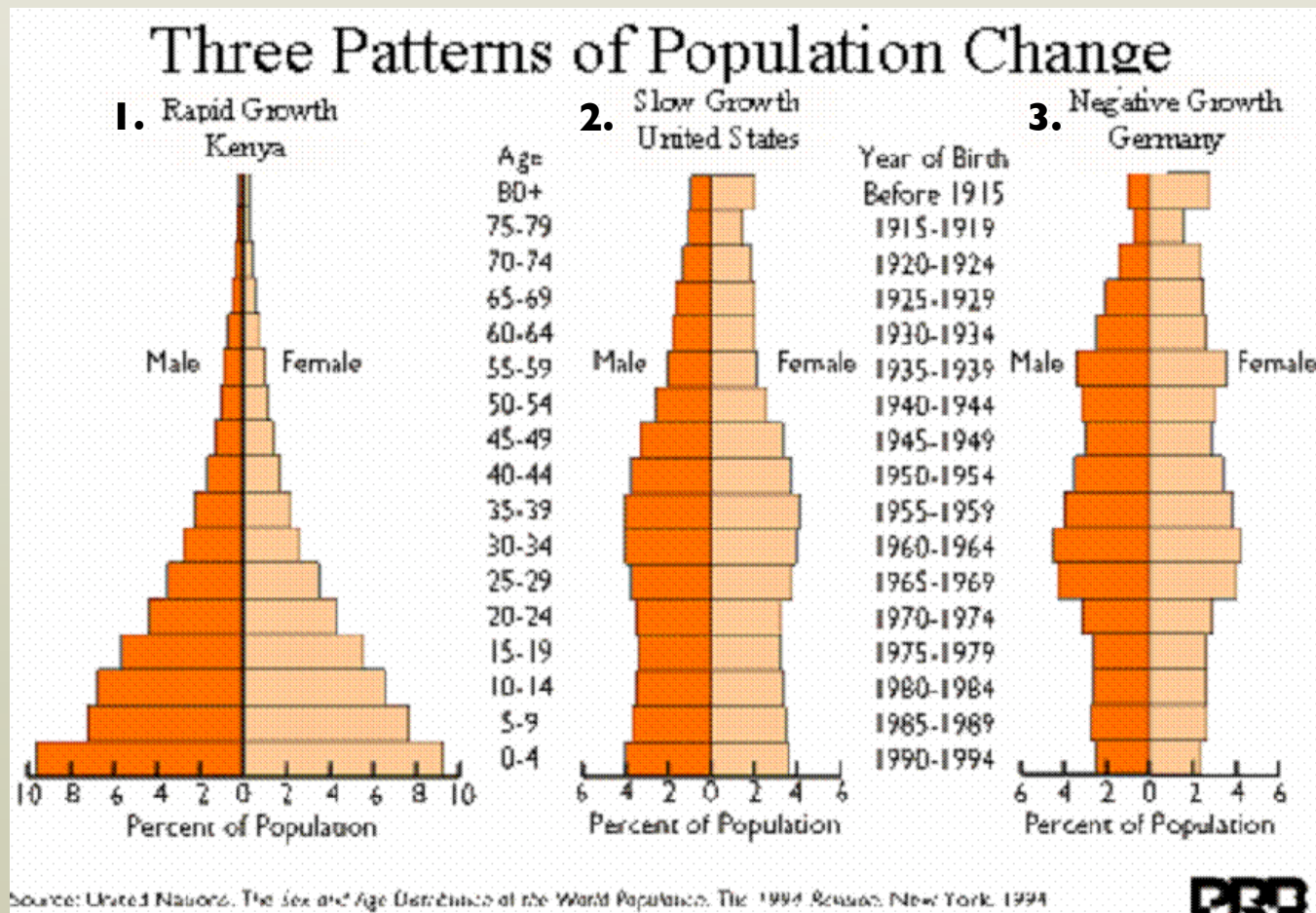
Base (dependent)

1. Which age cohort has the most people? Which has the fewest?
2. Are there more dependent children or seniors? Calculate the ratio of children: seniors by adding the appropriate cells
3. Which age groups represent the “baby boomers”? Use their ages to determine when they were born.
4. Are there more elderly men or women? Why might that be?



Three General Profiles: (associated socioeconomic impacts?)

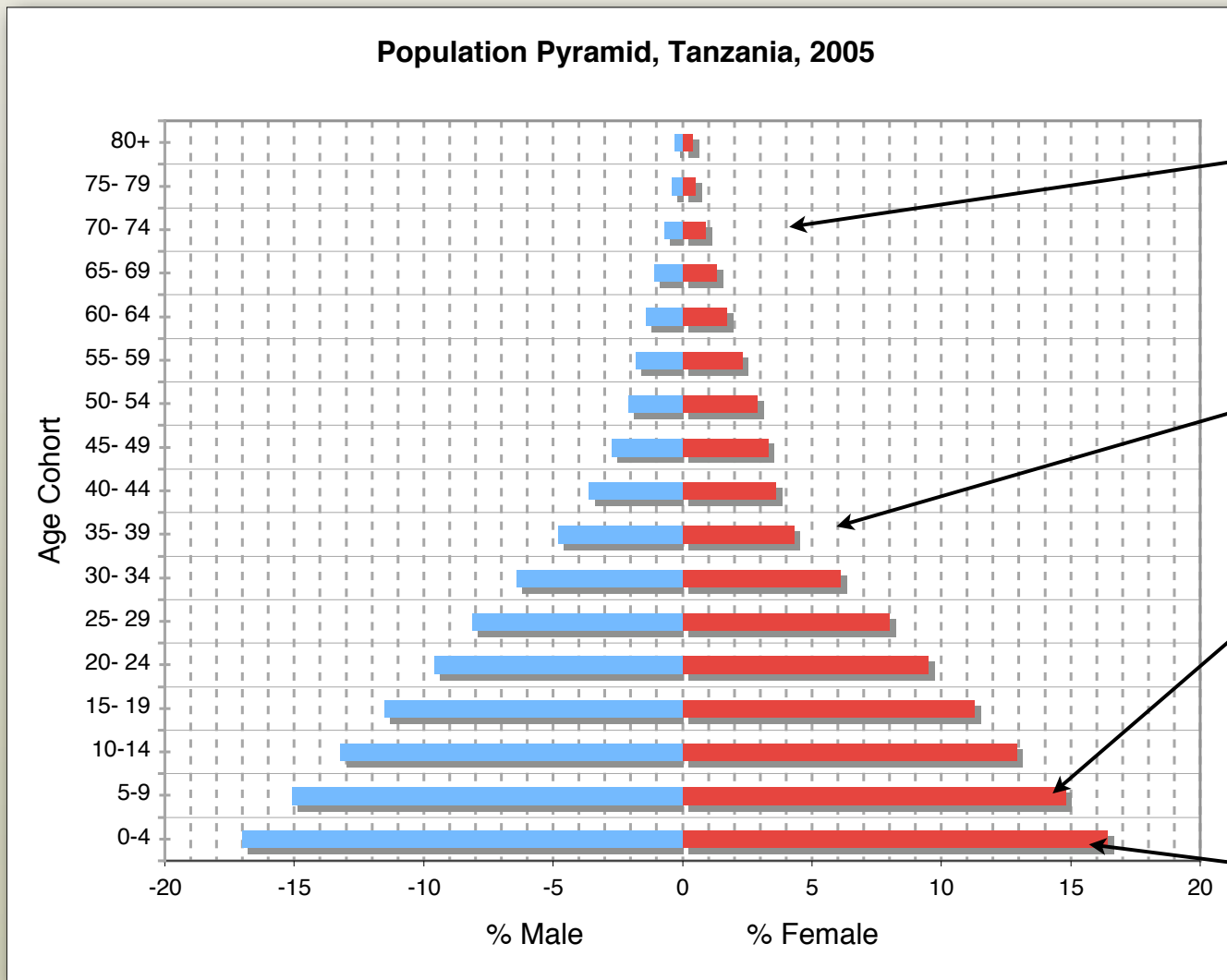
1. Expansive: rapid growth
2. Constrictive: slow growth
3. Near Stationary: zero to negative growth





Population Pyramids

What does the shape tell us about the population?



Narrow top

- Low life expectancy

Concave shape

- High DR

Quick drop off

- High infant mortality

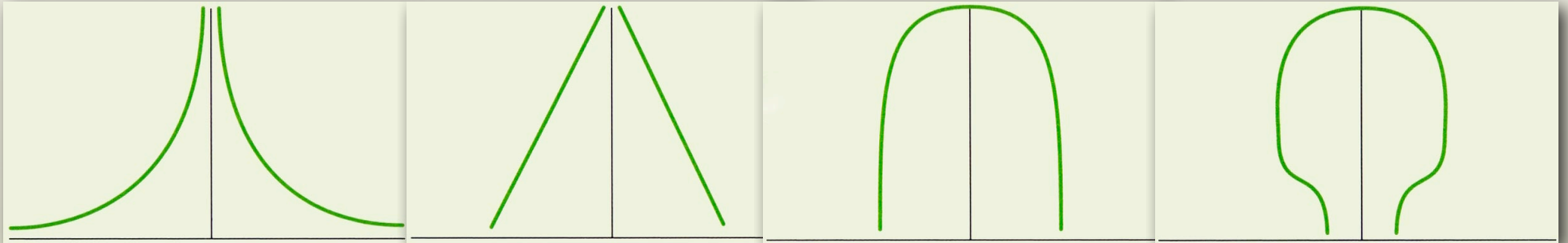
Wide base

- High BR
- High fertility



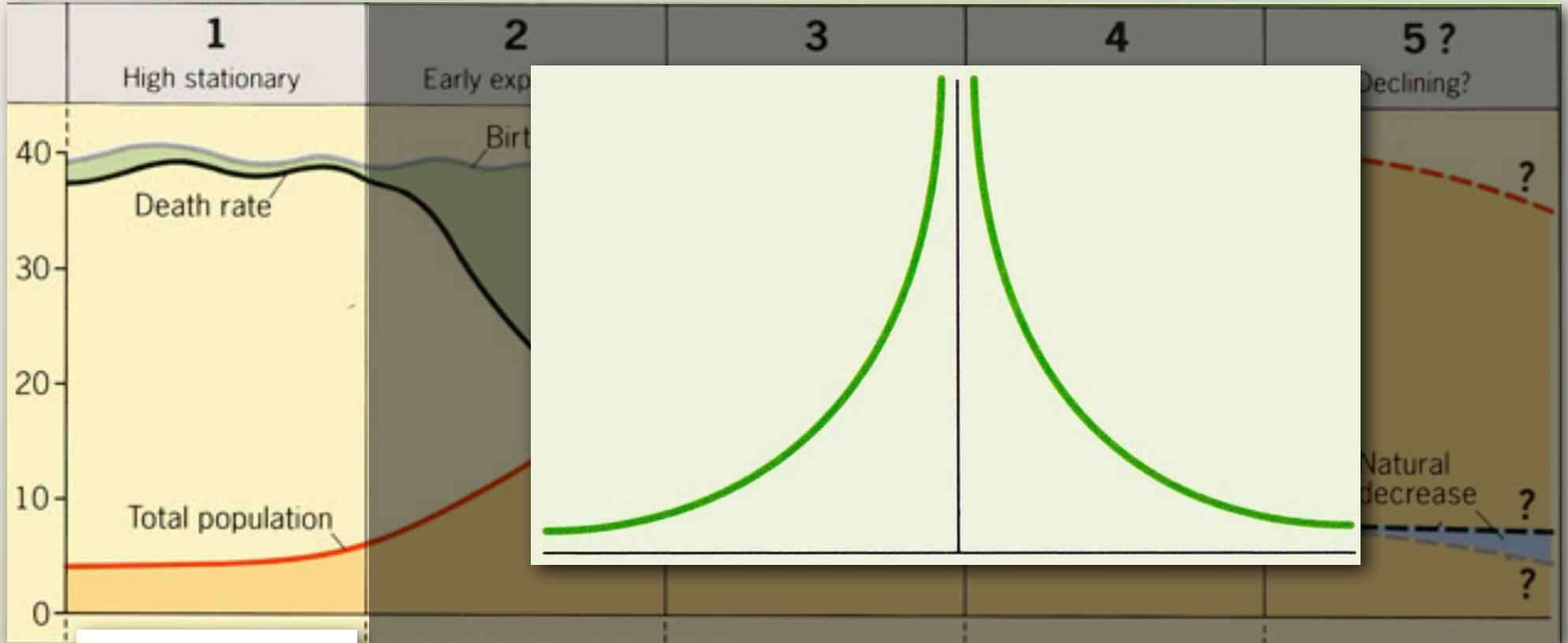
What do Population Pyramids show us?

Population pyramids illustrate the age structure of populations. Therefore, their shape reflects population trends:

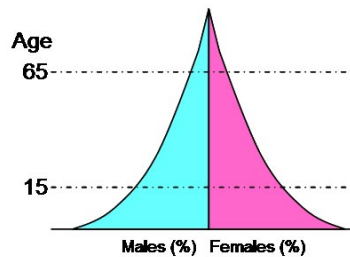




Population Pyramids



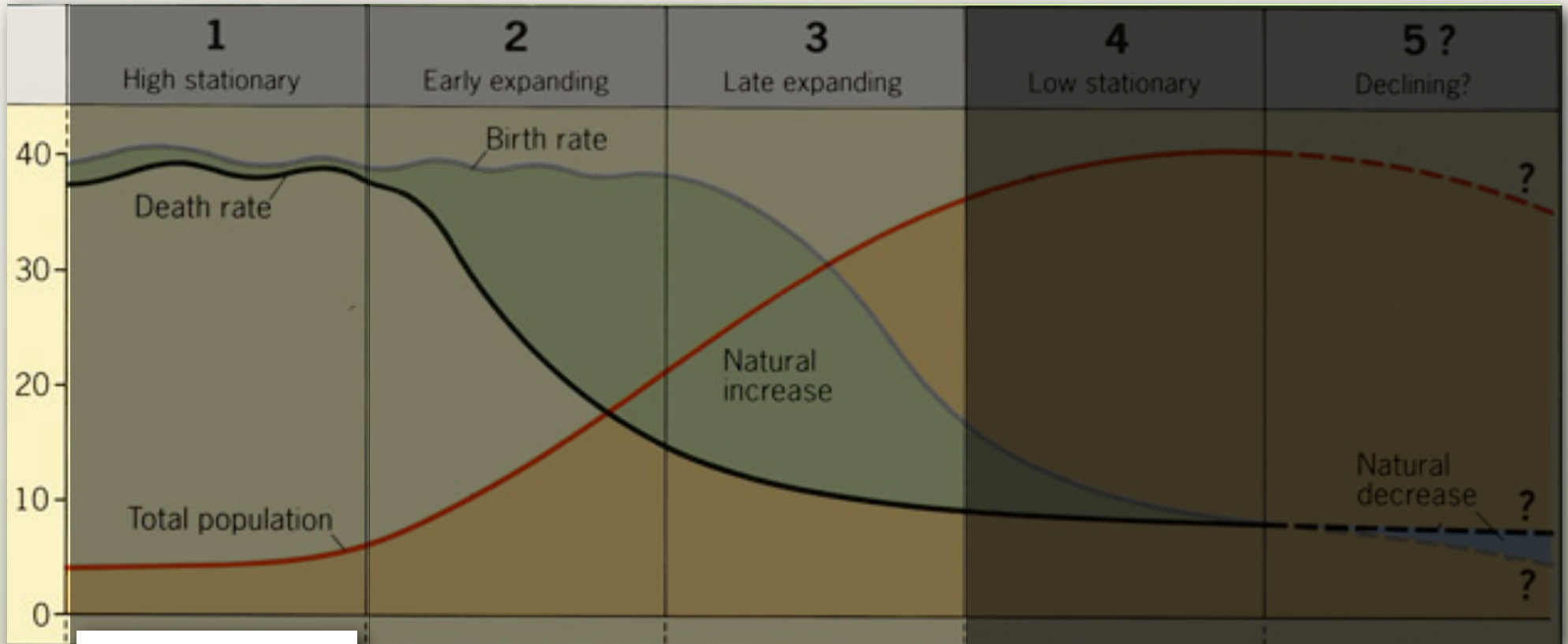
Pre-Transitional



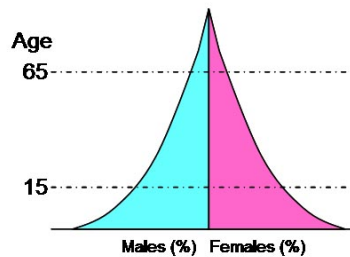
High birth rate; rapid fall in each upward age group due to high death rates; short life expectancy.



Population Pyramids



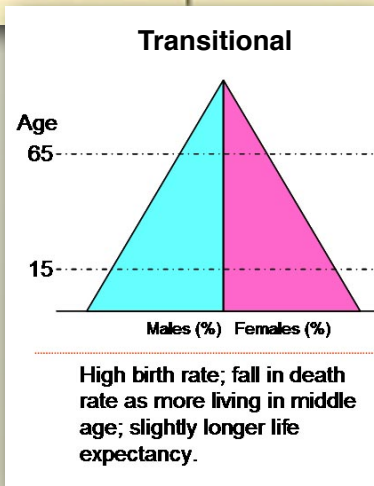
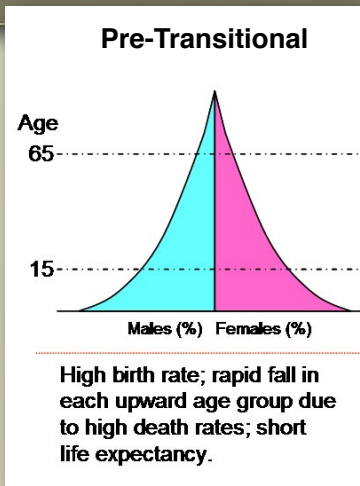
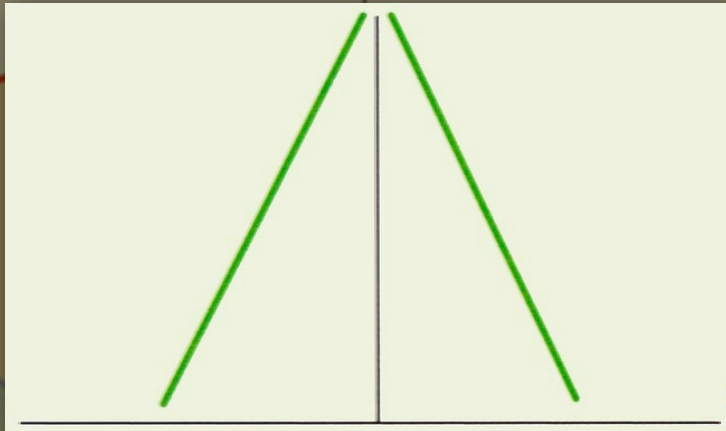
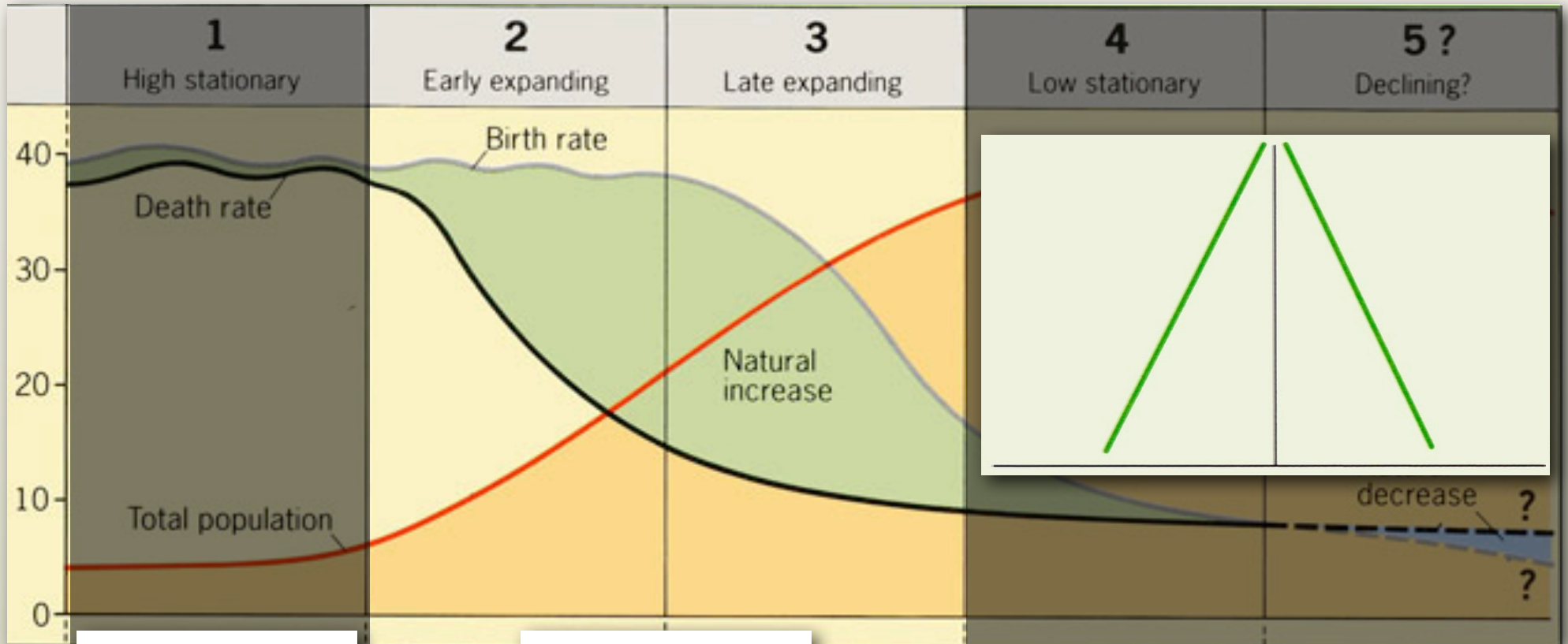
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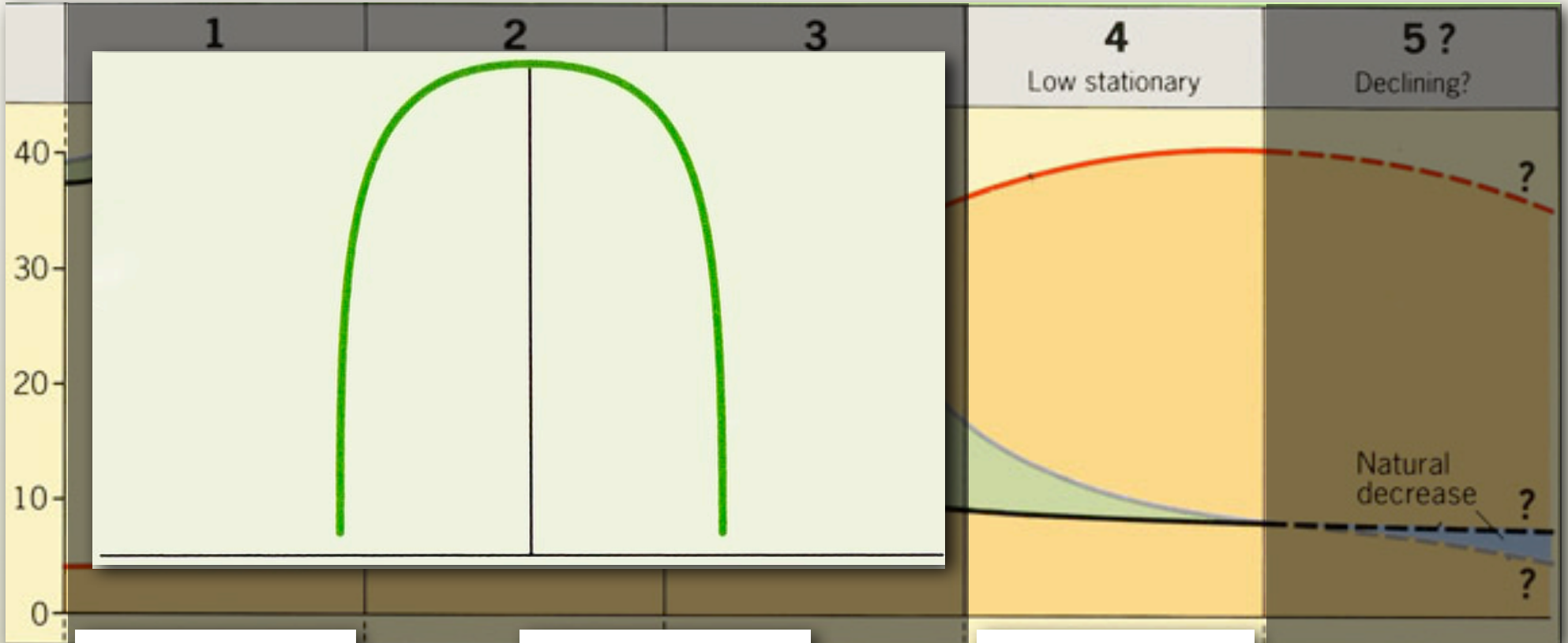


Population Pyramids

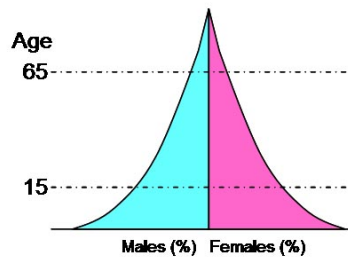




Population Pyramids

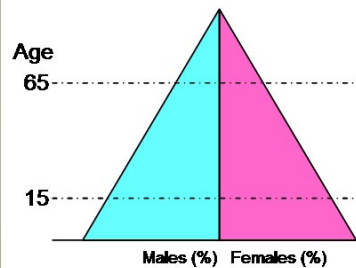


Pre-Transitional



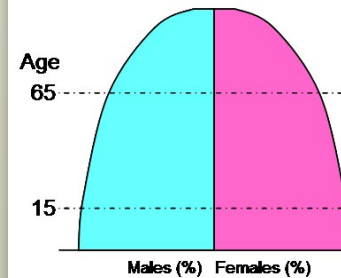
High birth rate; rapid fall in each upward age group due to high death rates; short life expectancy.

Transitional



High birth rate; fall in death rate as more living in middle age; slightly longer life expectancy.

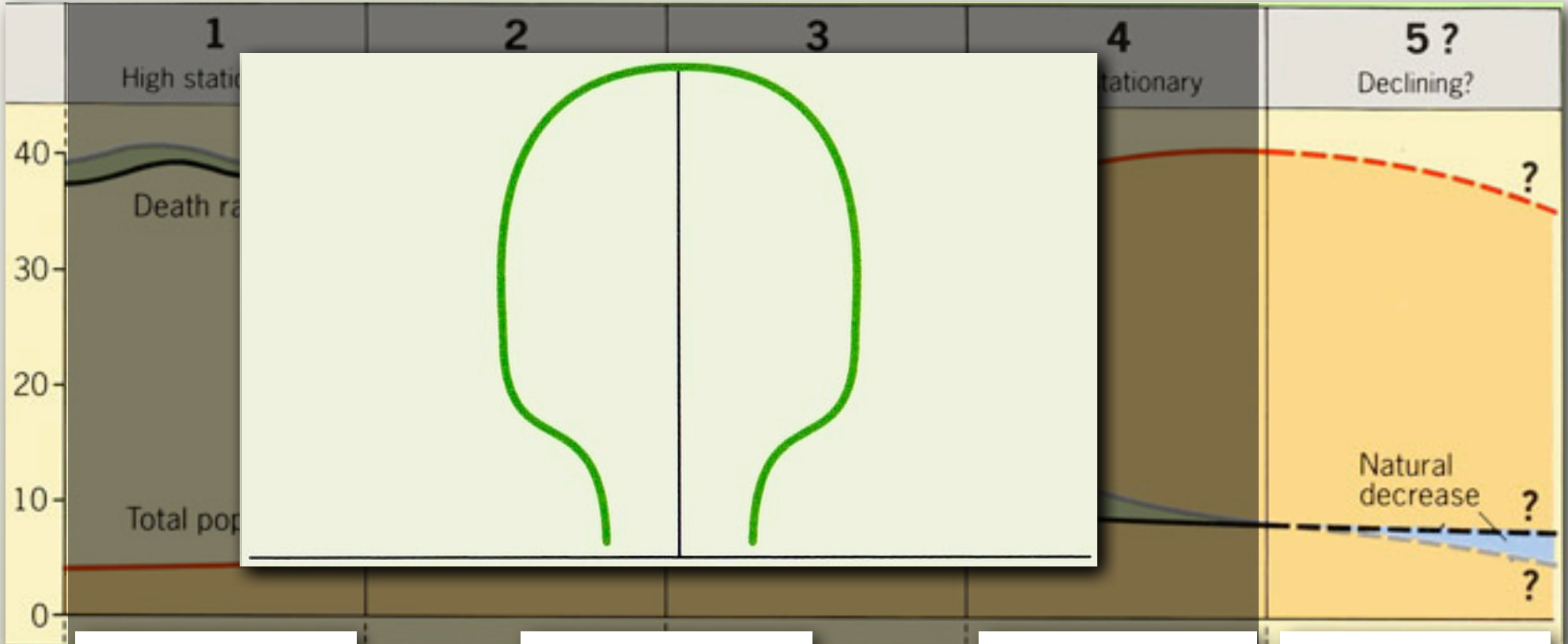
Post-Transitional



Declining birth rate; low death rate; more people living to old age.



Population Pyramids



Pre-Transitional

Age 65
15

Males (%) Females (%)

High birth rate; rapid fall in each upward age group due to high death rates; short life expectancy.

Transitional

Age 65
15

Males (%) Females (%)

High birth rate; fall in death rate as more living in middle age; slightly longer life expectancy.

Post-Transitional

Age 65
15

Males (%) Females (%)

Declining birth rate; low death rate; more people living to old age.

Contracting

Age 65
15

Males (%) Females (%)

Low birth rate; low death rate; higher dependency ratio; longer life expectancy.

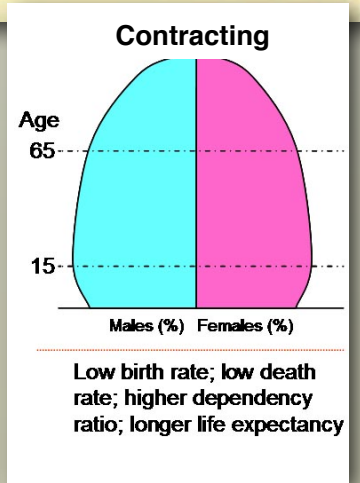
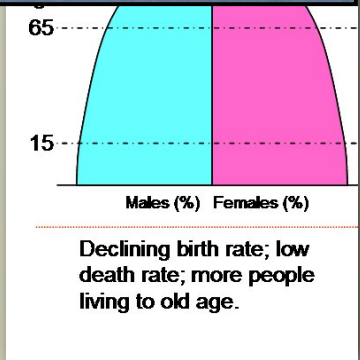
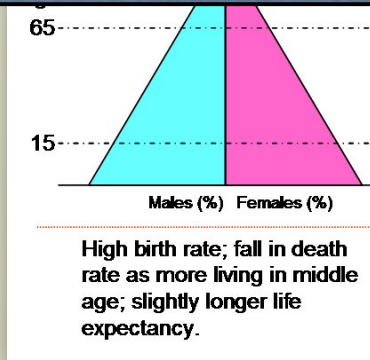
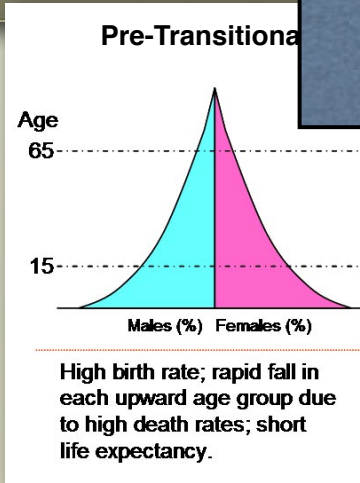


Population Pyramids



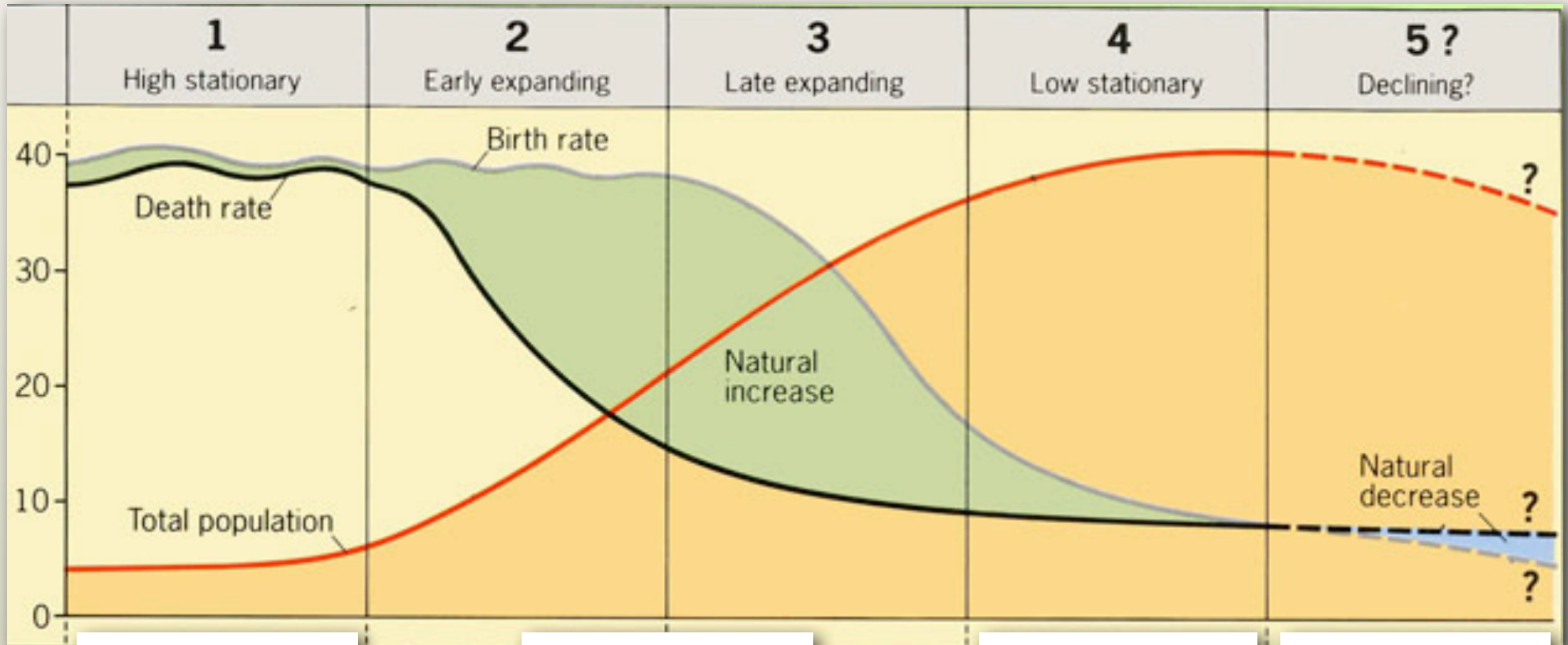
How do population pyramids change over time?

- Canada - Ontario - UK - Germany
- Africa - North America - Europe





Population Pyramids



Pre-Transitional

Age 65
15

Males (%) Females (%)

High birth rate; rapid fall in each upward age group due to high death rates; short life expectancy.

Transitional

Age 65
15

Males (%) Females (%)

High birth rate; fall in death rate as more living in middle age; slightly longer life expectancy.

Post-Transitional

Age 65
15

Males (%) Females (%)

Declining birth rate; low death rate; more people living to old age.

Contracting

Age 65
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Males (%) Females (%)

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