

World Population Growth 1950–2000

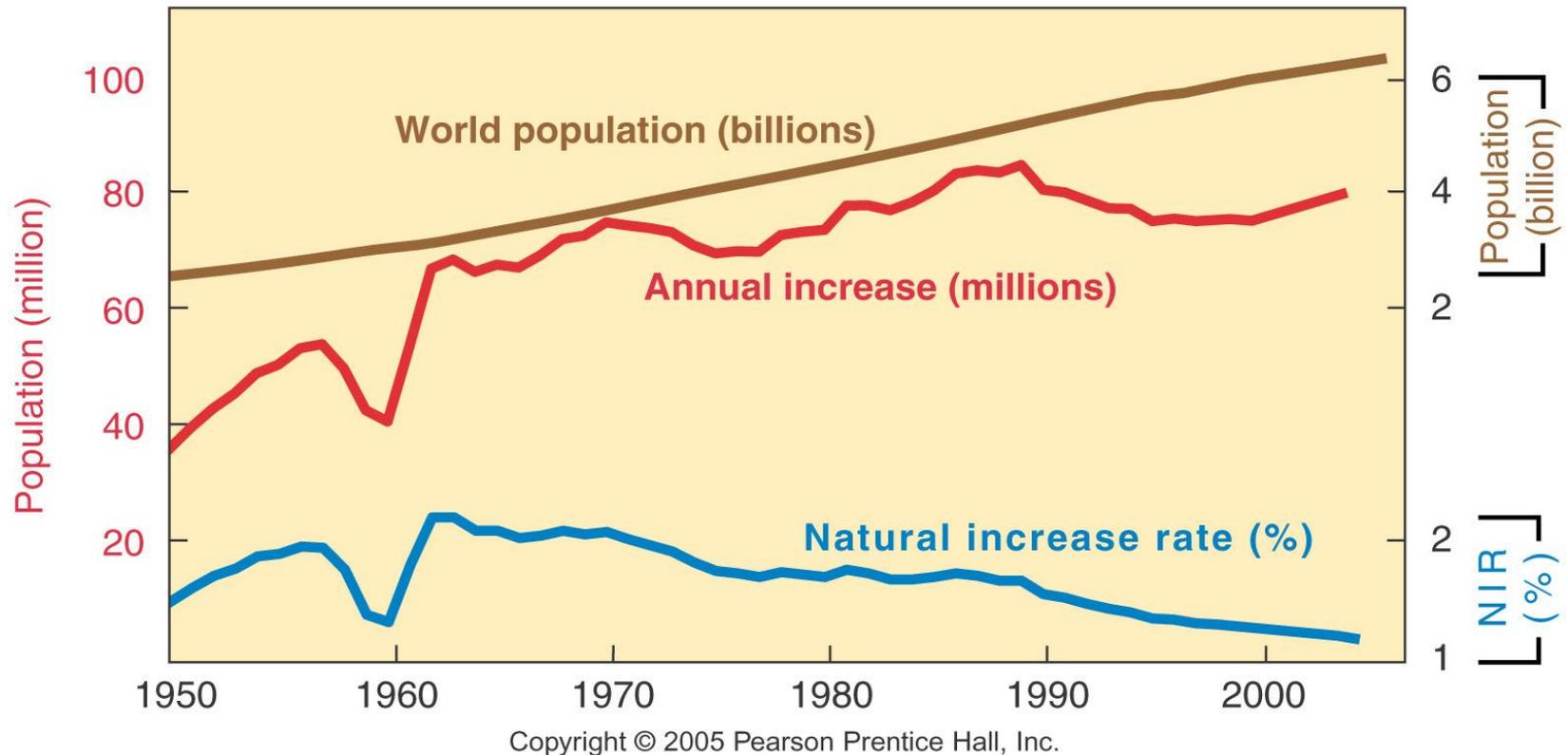
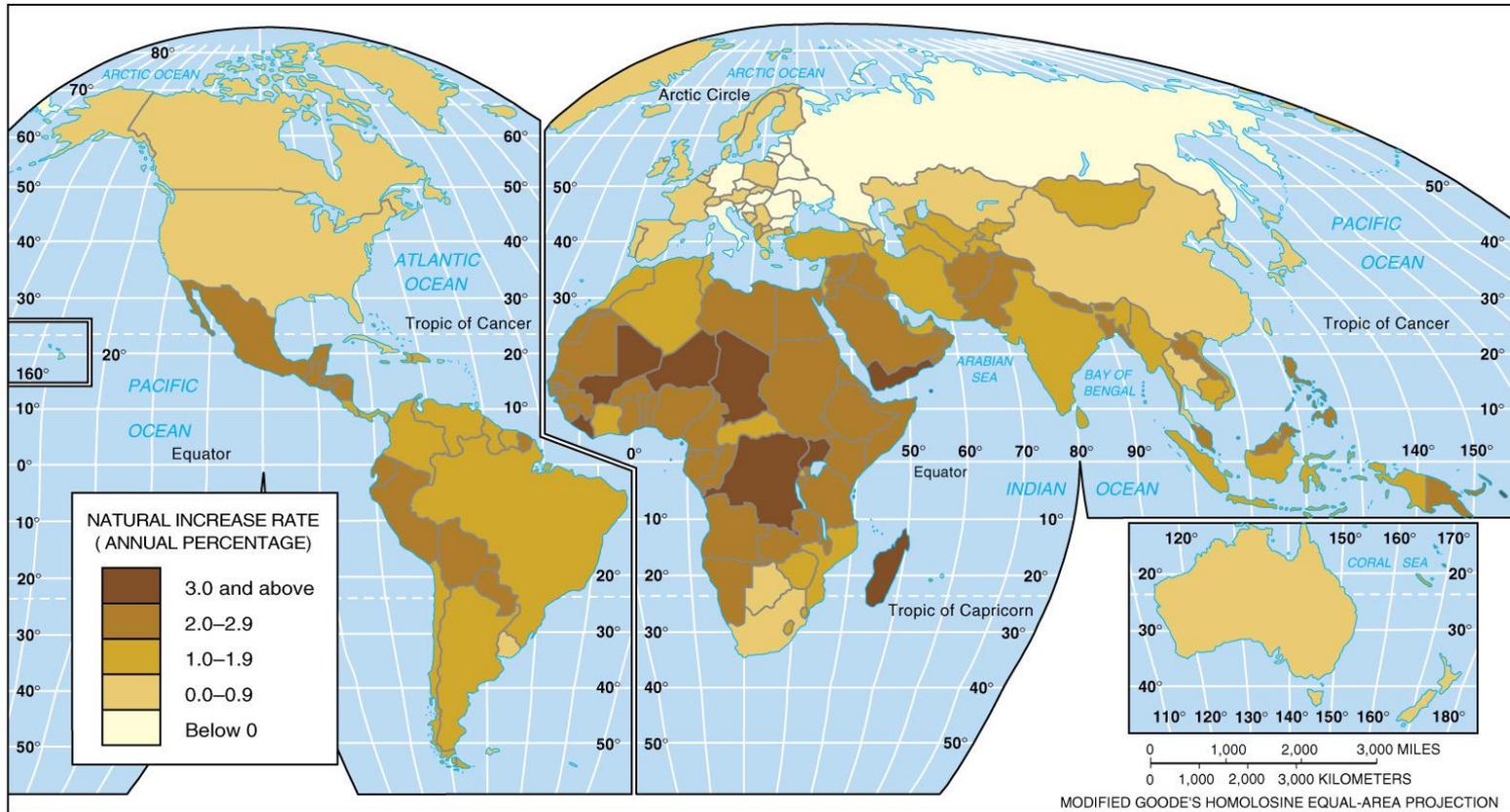


Fig. 2-6: Total world population increased from 2.5 to 6 billion in this half century. The natural increase rate peaked in the early 1960s and has declined since, but the number of people added each year did not peak until 1990.

Population Basics

- Geographers measure population change through three measures:
 - Crude birth rate (CBR) is the total number of live births in a year for every 1,000 people.
 - Crude death rate (CDR) is the total number of deaths in a year for every 1,000 people.
 - Natural increase rate (NIR) is the percentage by which a population grows in a year.
 - The term natural means that a country's growth rate excludes migration.
 - The term crude means that we are concerned with society as a whole rather than a refined look at particular individuals or groups.

Natural Increase Rates



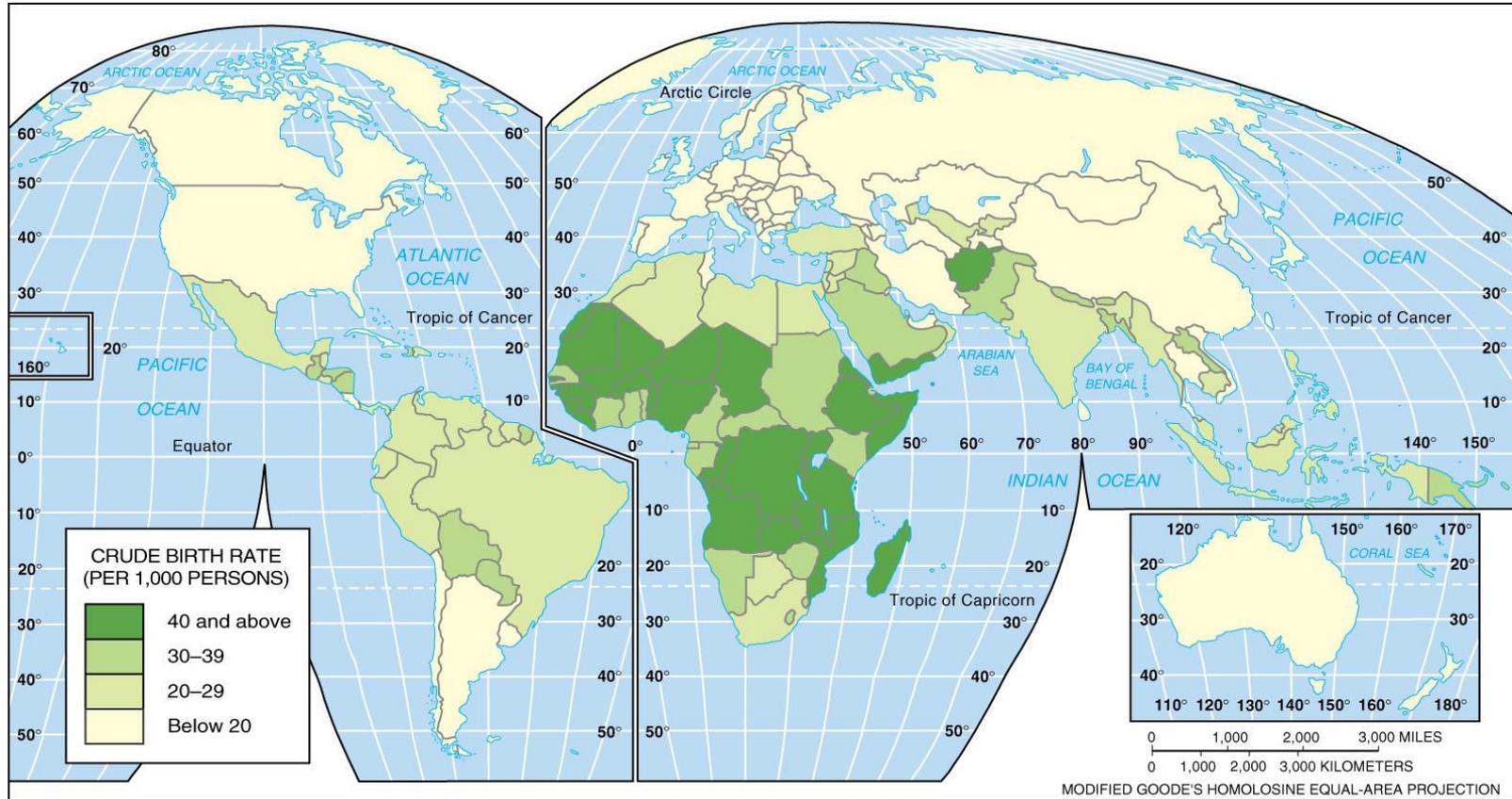
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Fig. 2-7: The natural increase rate (NIR) is the percentage growth or decline in the population of a country per year (not including net migration). Countries in Africa and Southwest Asia have the highest current rates, while Russia and some European countries have negative rates.

Natural Increase Stats

- The natural increase rate of the planet during the current decade (200-2010) is estimated to be 1.3 percent.
- It is lower today than at its all-time peak of 2.2 percent in 1963.
- The NIR during the second half of the twentieth century was high by historical standards.
- The number of people added each year has dropped at a slower rate than the NIR, because the population base is much higher now than in the past.
- The rate of natural increase affects the doubling time, which is the number of years needed to double a population.
- When the NIR was 2.2 percent back in 1963, doubling time was 35 years.

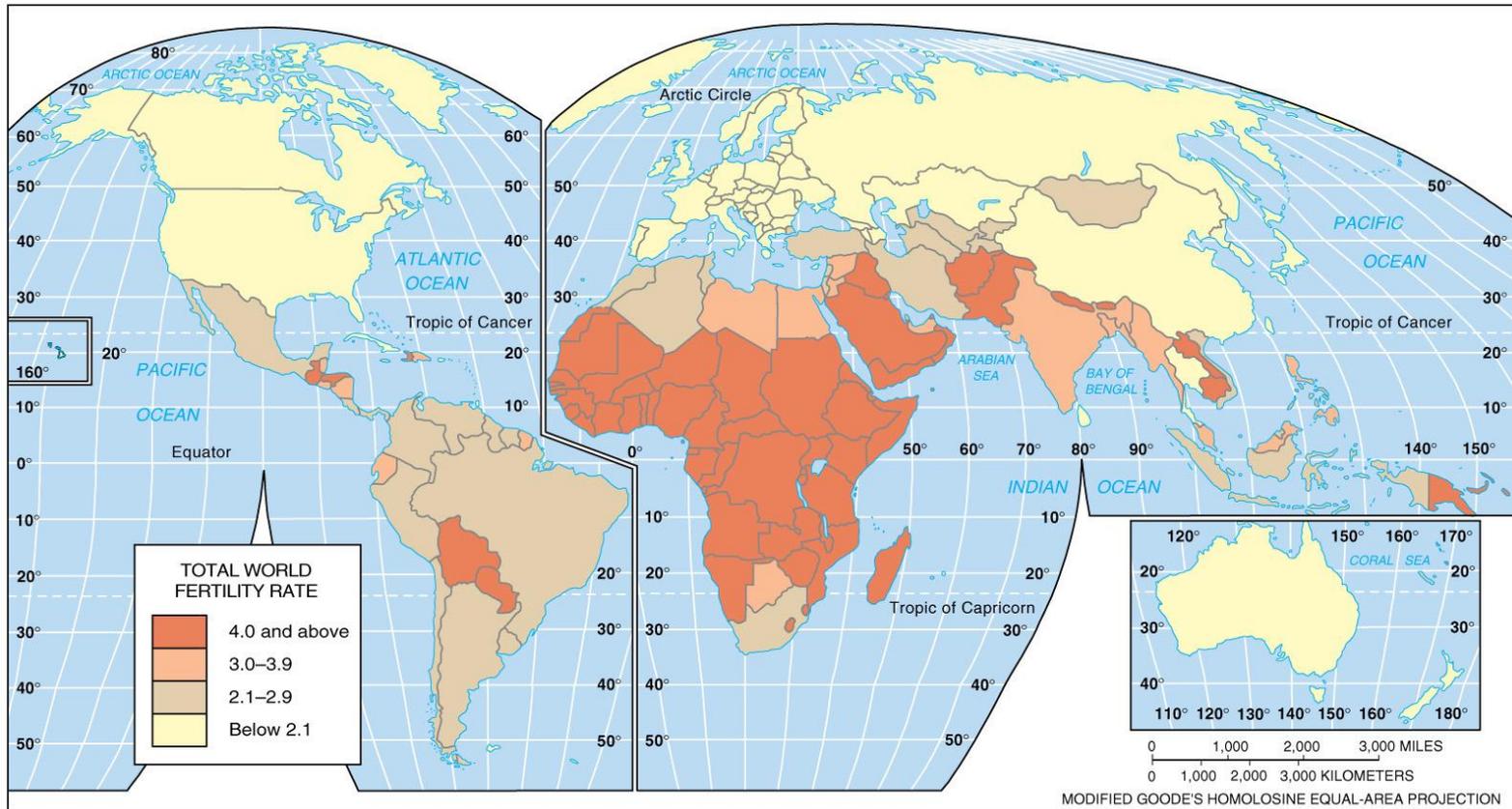
Crude Birth Rates



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Fig. 2-8: The crude birth rate (CBR) is the total number of births in a country per 1,000 population per year. The lowest rates are in Europe, and the highest rates are in Africa and several Asian countries.

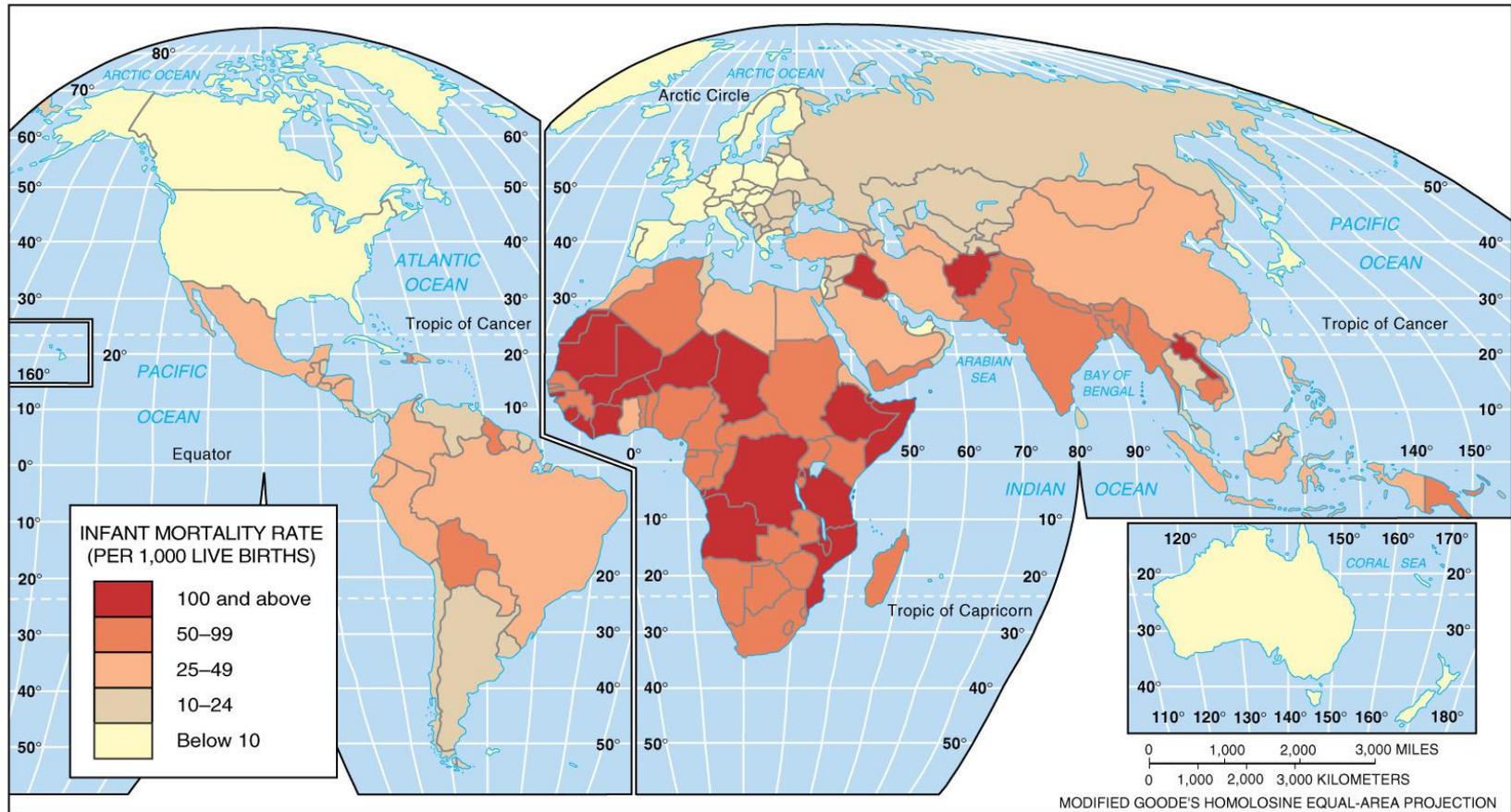
Total Fertility Rates



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Fig. 2-9: The Total fertility rate (TFR) is the number of children an average woman in a society will have through her childbearing years. The lowest rates are in Europe, and the highest are in Africa and parts of the Middle East.

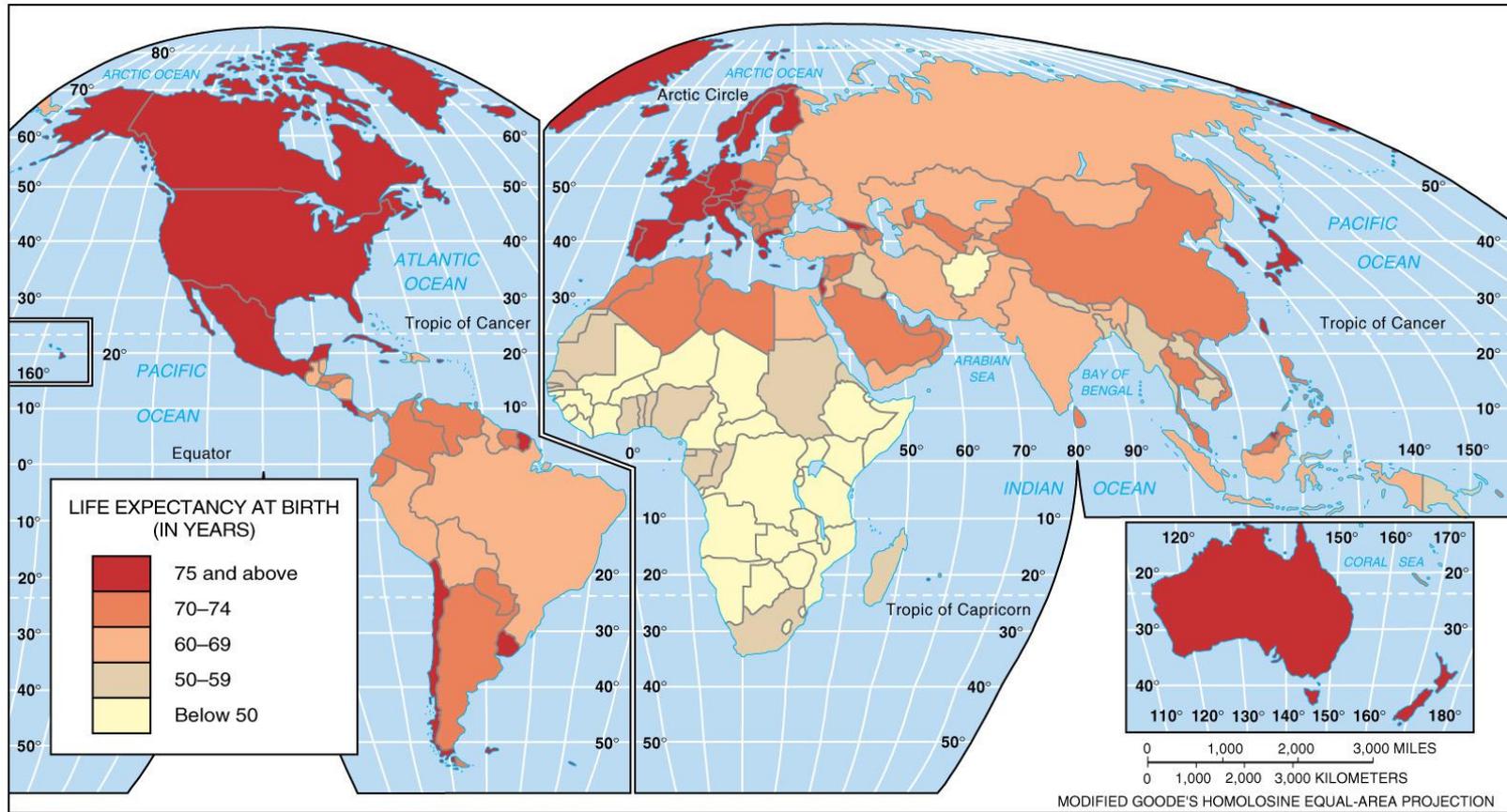
Infant Mortality Rates



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Fig. 2-10: The infant mortality rate is the number of infant deaths per 1,000 live births per year. The highest infant mortality rates are found in some of the poorest countries of Africa and Asia.

Life Expectancy at birth

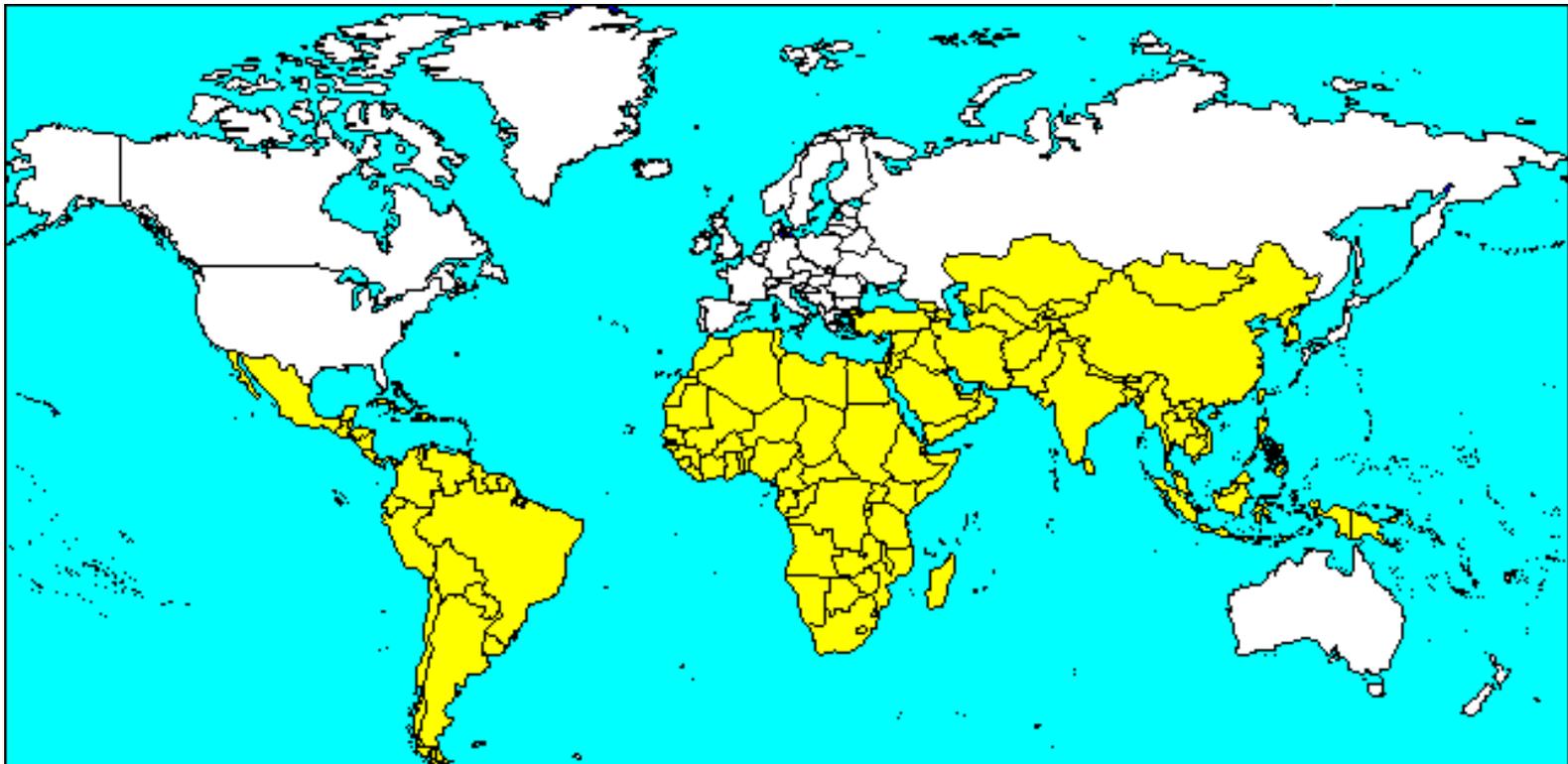


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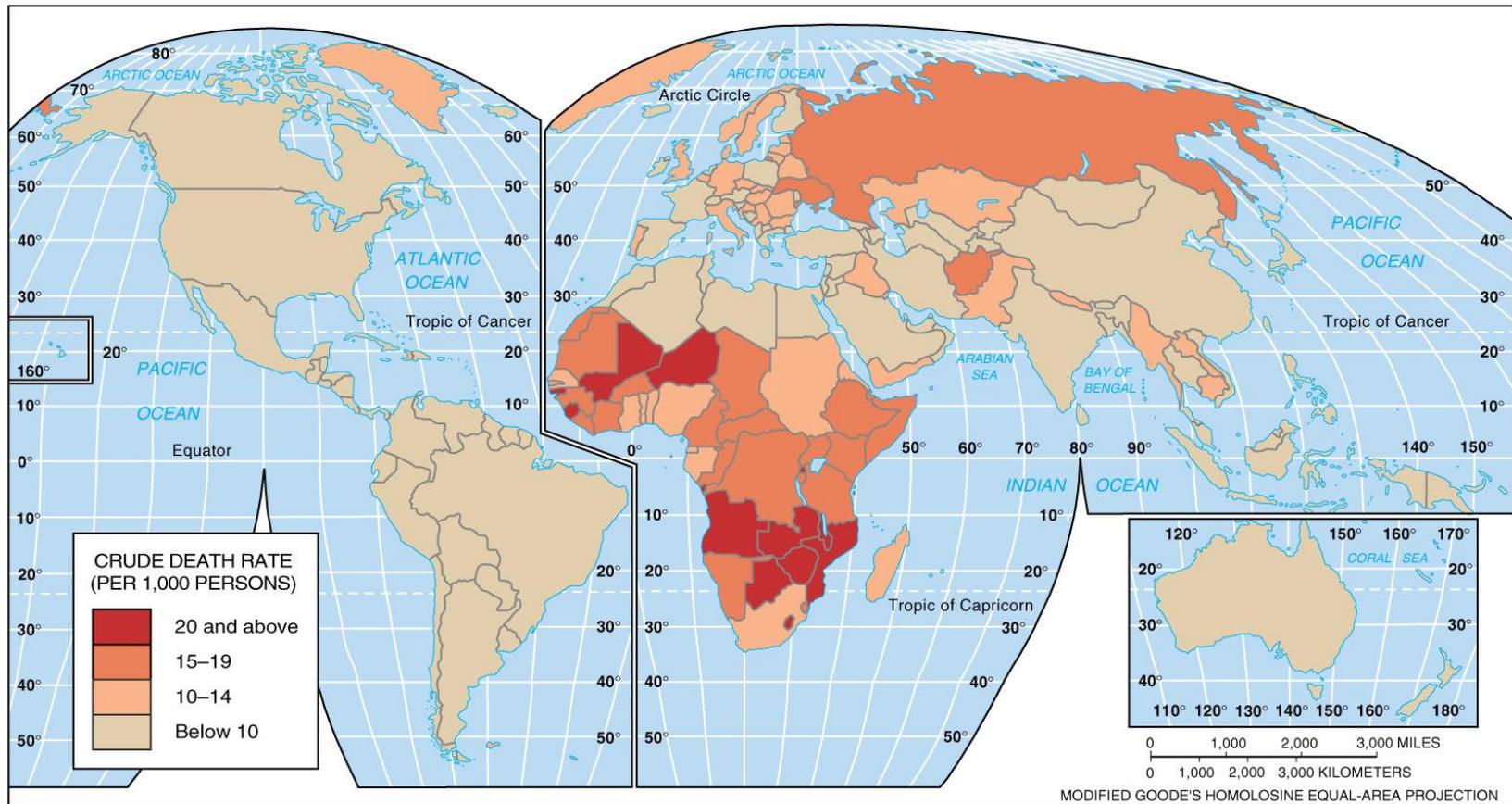
Fig. 2-11: Life expectancy at birth is the average number of years a newborn infant can expect to live. The highest life expectancies are generally in the wealthiest countries, and the lowest in the poorest countries.

Where These Rates Are Highest

- Higher rates of natural increase, crude birth, total fertility, and infant mortality, and lower life expectancy are in Less Developed Countries.



Crude Death Rates



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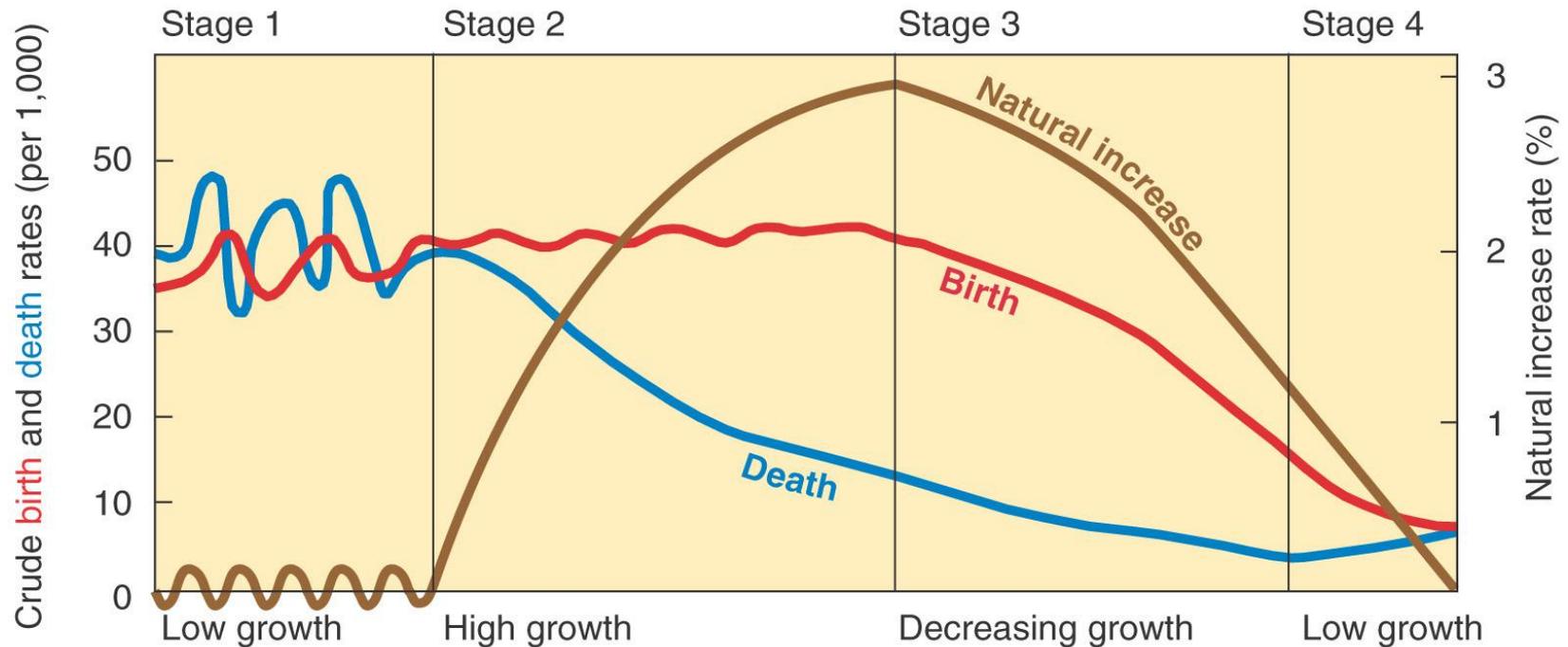
Fig. 2-12: The crude death rate (CDR) is the total number of deaths in a country per 1,000 population per year. Because wealthy countries are in a late stage of the demographic transition, they often have a higher CDR than poorer countries.

Key Issue 3:

Variations in Population Growth

- The Main Points of this issue are:
 - The Demographic Transition
 - 1. *Low growth*
 - 2. *High growth*
 - 3. *Moderate growth*
 - 4. *Low growth*
 - Population pyramids
 - *Age distribution*
 - *Sex ratio*
 - Countries in different stages of demographic transition
 - Demographic transition and world population growth

The Demographic Transition

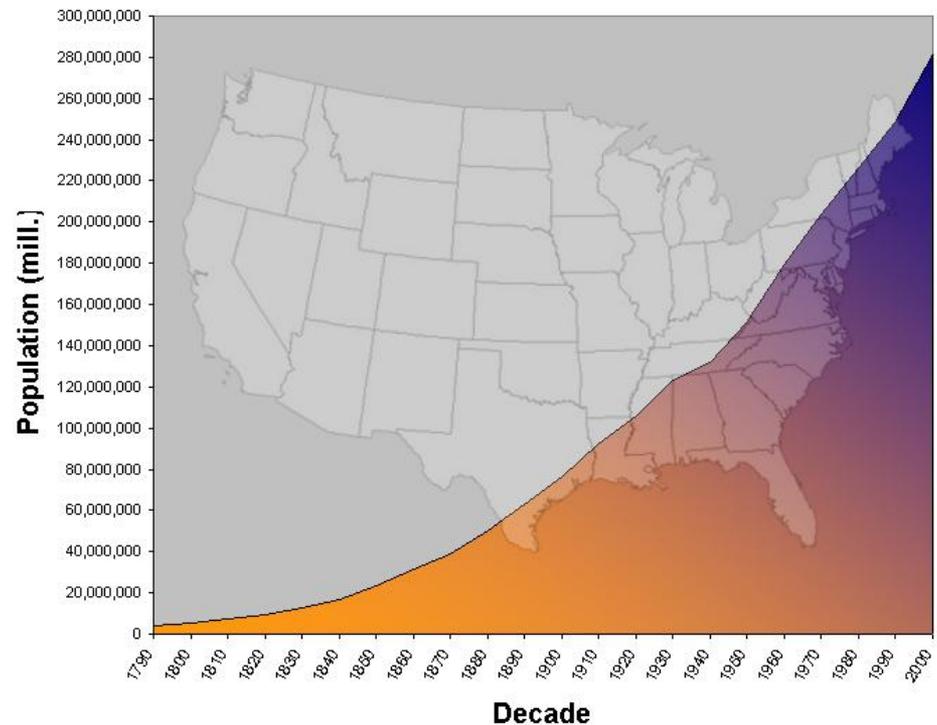


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Fig. 2-13: The demographic transition consists of four stages, which move from high birth and death rates, to declines first in birth rates then in death rates, and finally to a stage of low birth and death rates. Population growth is most rapid in the second stage.

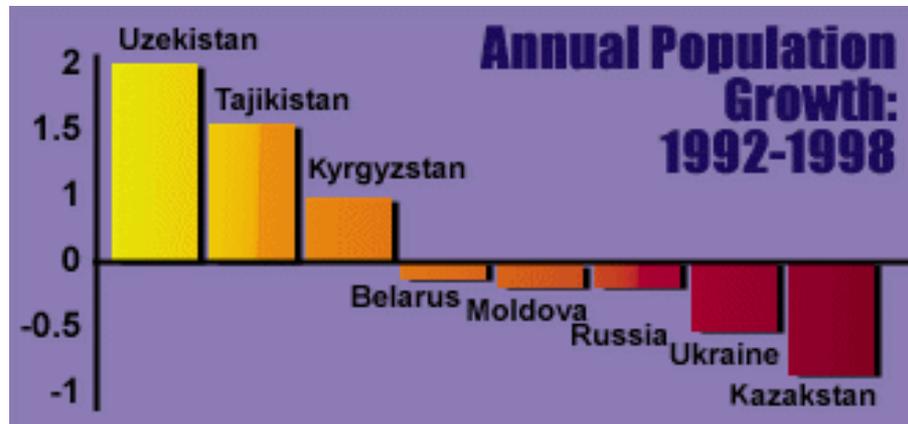
US Population Growth

- The United States has moved slightly below Zero Population Growth since 2000.
- When most families lived on farms, employment and child rearing were conducted at the same place, but in urban societies most parents must leave the home to work.



Russian Population Growth

- Several Eastern European countries, most notably Russia, have negative natural increase rates, a legacy of a half century of Communist rule.
- As memories of the Communist era fade, Russians and other Eastern Europeans may display birth and death rates more comparable to those in Western Europe.
- Alternatively, demographers in the future may identify a fifth stage, characterized by higher death rates than birth rates and an irreversible population decline.



Demographic Transition in England

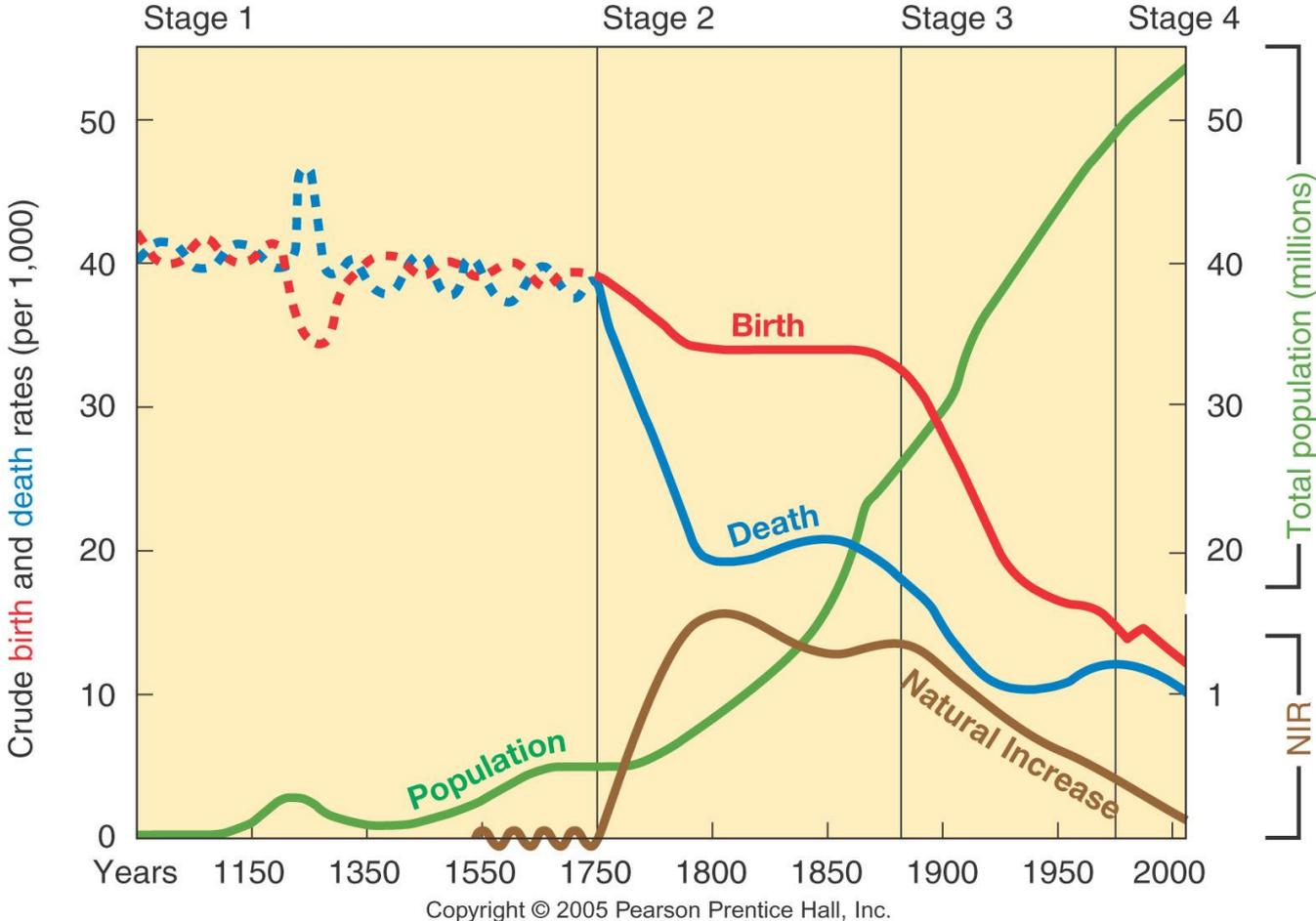
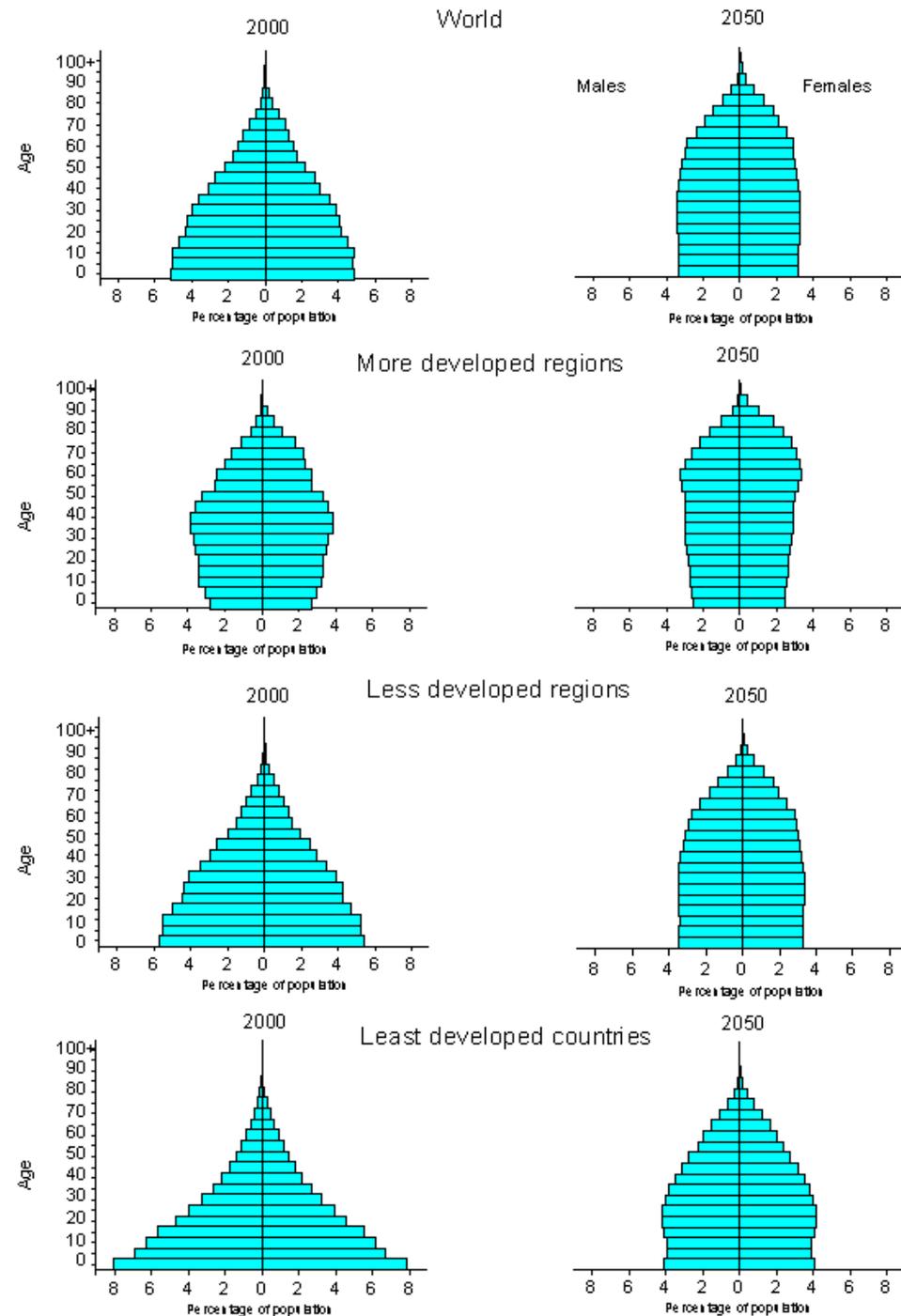


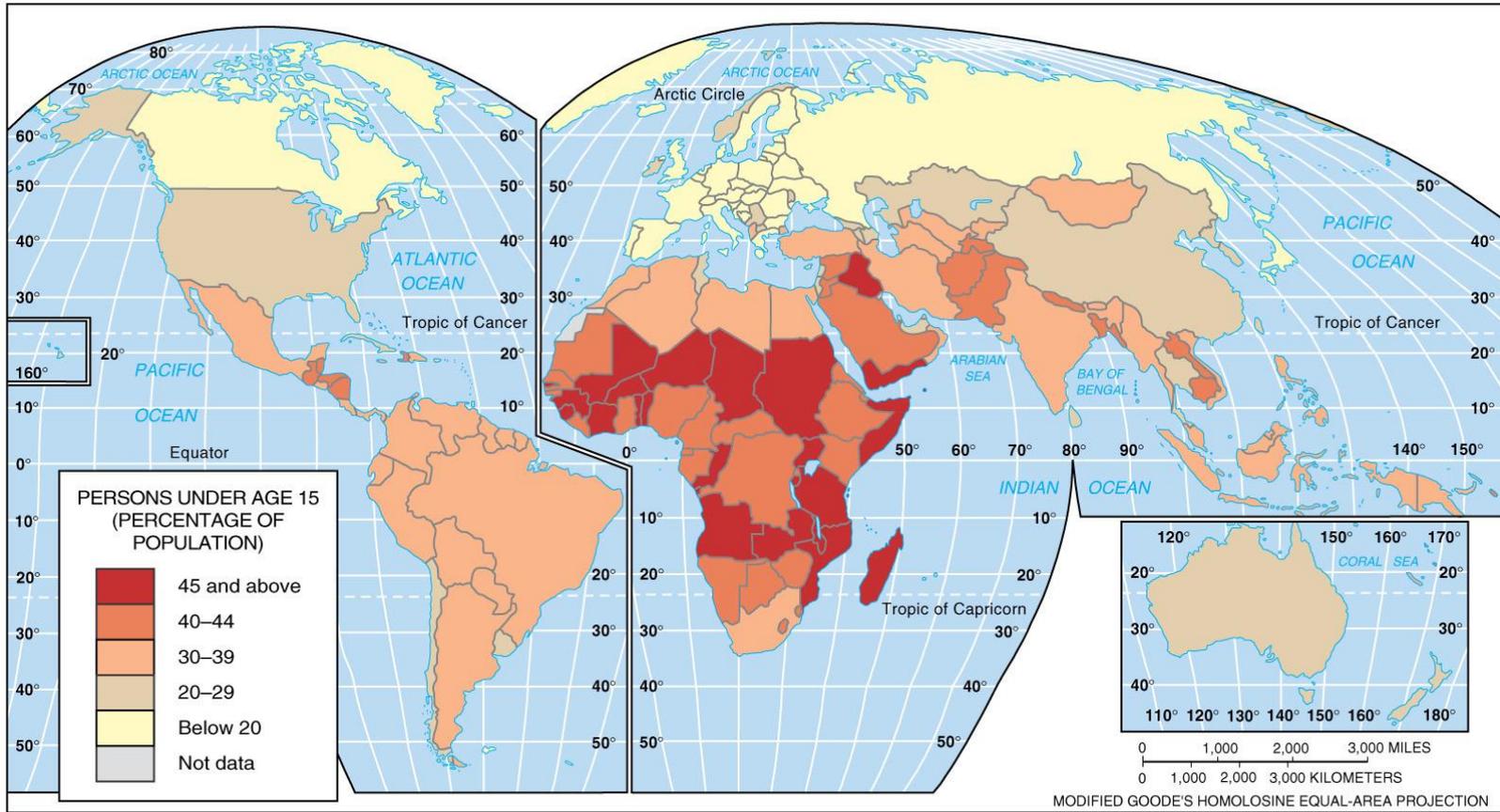
Fig. 2-14: England was one of the first countries to experience rapid population growth in the mid-eighteenth century, when it entered stage 2 of the demographic transition.

Population Pyramids

- Population in a country is influenced by the demographic transition in two principal ways: the percentage of the population in each age group, and the distribution of males and females.
- A country's population can be displayed by age and gender groups on a bar graph called a population pyramid.



Percent of Population under 15

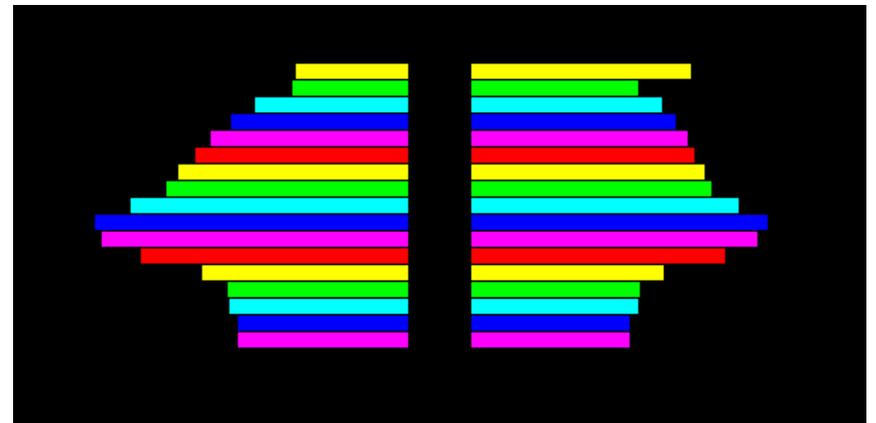
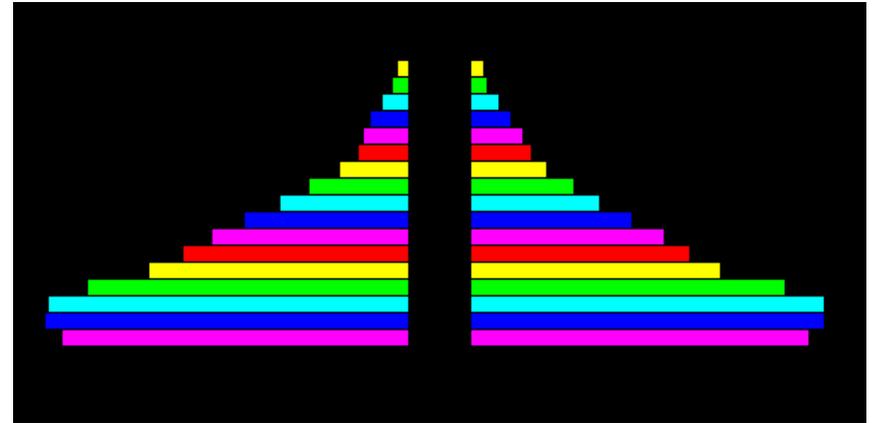


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Fig. 2-15: About one-third of world population is under 15, but the percentage by country varies from over 40% in most of Africa and some Asian countries, to under 20% in much of Europe.

Young Pop. vs. Older Pop.

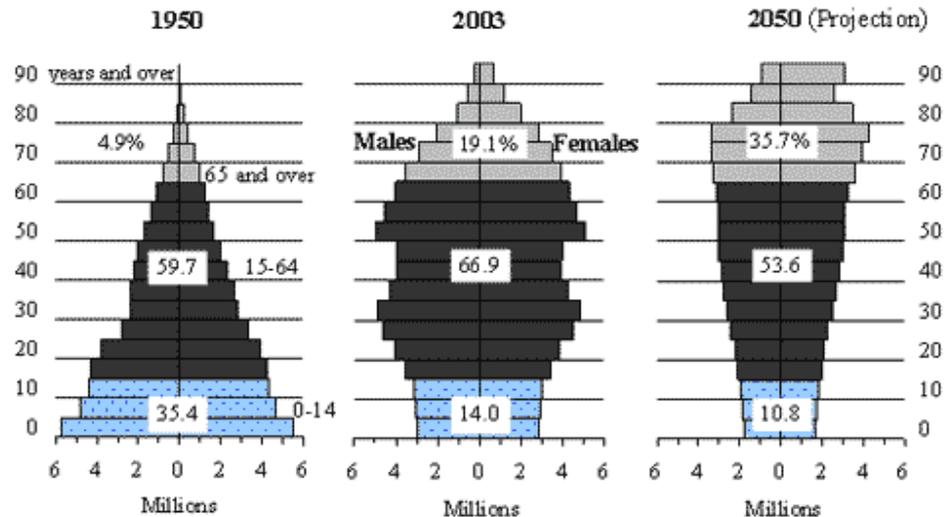
- Young dependents outnumber elderly ones by 10:1 in stage 2 countries, but the numbers of young and elderly dependants are roughly equal in stage 4 countries.
- The large percentage of children in Sub-Saharan Africa and other stage 2 countries strains the ability of poorer countries to provide needed services.



Changes in the Pyramid

- As countries pass through the stages of the demographic transition, the percentage of elderly people increases.
- More than one-fourth of all government expenditures in the United States, Canada, Japan, and many European countries go to Social Security, health care, and other programs for the older population.

Figure 2.3
Changes in the Population Pyramid

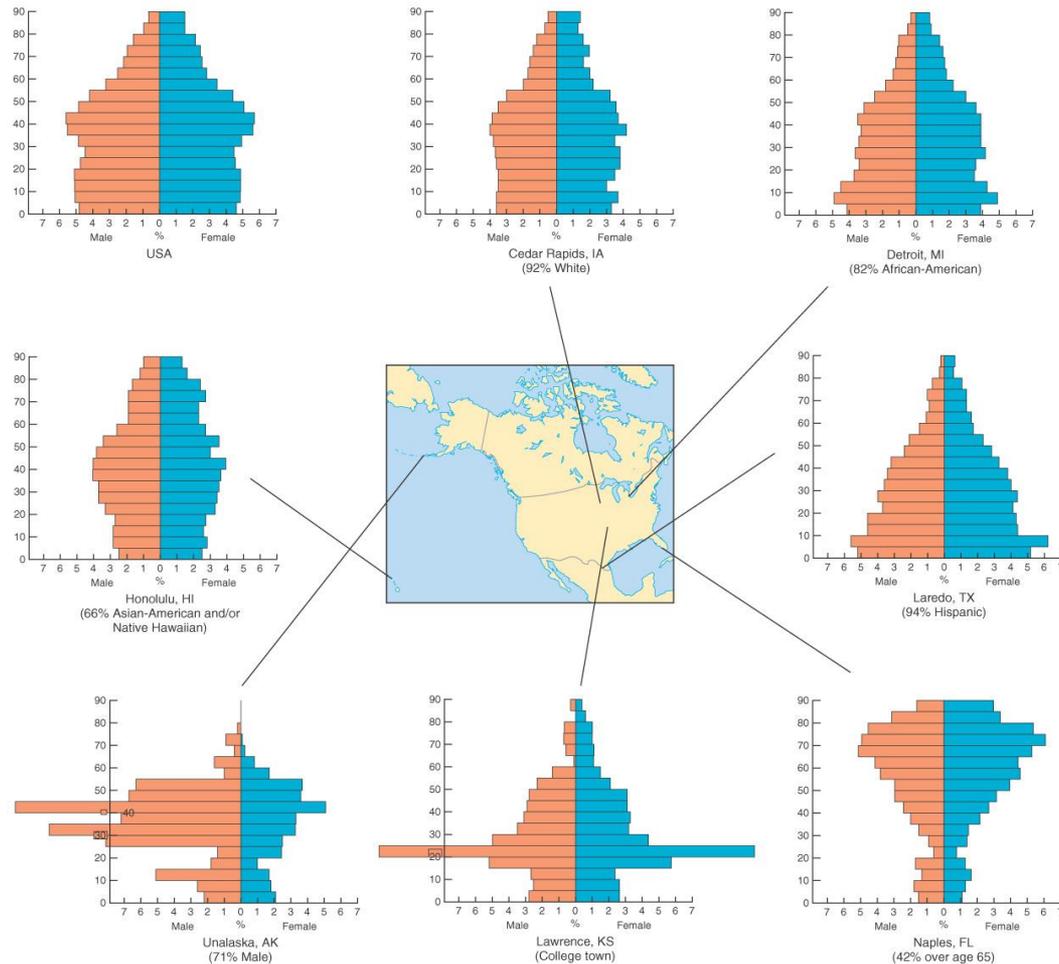


Source: Statistics Bureau, MPHPT; Ministry of Health, Labour and Welfare.

Population Disparities

- The number of males per hundred females in the population is the sex ratio.
- In Europe and North America the ratio of men to women is about 95:100.
- In the rest of the world the ratio is 102:100.
- In poorer countries the high mortality rate during child birth partly explains the lower percentage of women.
- The difference also relates to the age structure.
- Societies with a high rate of immigration typically have more males than females.

Population Pyramids in U.S. Cities



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Fig. 2-16: Population pyramids can vary greatly, with different fertility rates (Laredo vs. Honolulu), or among military bases (Unalaska), college towns (Lawrence), and retirement communities (Naples).

Countries in Different Stages of Demographic Transition

- No country today remains in stage 1 of the demographic transition, but it is interesting to compare countries in each of the other three stages.

