



## Human Population and Demographics

## Human Demographic Trends

- Study of populations in various countries – highly developed versus developing nations

95% of human population growth is occurring in developing countries - those already struggling with poverty, illiteracy and civil unrest.

**WORLD POPULATION GROWTH, 1800-2050**  
 At the turn of the 21st century, almost 75 million people were being added to the Earth every year—about a quarter of the entire U.S. population. In the future, almost all population growth will be in the developing world.

**LESS DEVELOPED COUNTRIES:** Africa, Asia (excluding Japan), Latin America, The Caribbean, Melanesia, Micronesia, Polynesia

**MORE DEVELOPED COUNTRIES:** Europe, North America, Australia, New Zealand, Japan

## 1. Replacement-level Fertility

**The Replacement Fertility Rate is 2.1 Children per Woman.**

- The total fertility rate is the average number of children women have during their lifetime. If a couple has 2 children before dying the population will not change.
- Because not all children live to adulthood, it is necessary to have 2.1 children per woman (or couple) to keep the population constant.

## 1. Replacement-level Fertility

- No developed countries have above replacement-level fertility.
- The replacement rate for the entire developed world is 1.5. (In Canada, it was 1.6 as of 2008.)
- Fertility rates have dropped in developing countries, from 6.1 to 3.3 in the last 50 years (and if China is included, the decline is 6.2 to 2.9.) But...the average is still higher than the replacement rate.

## Shrinking families

In almost all nations women are tending to have fewer children

The most populous countries with below-replacement fertility are China, Brazil, Vietnam, Iran, Thailand and Korea, in order of population size.

Source: United Nations Department of Social and Economic Affairs – Population Division, World Population Prospects: the 2008 Revision

## 2. Life Expectancy

Life expectancy, a reflection of a nation's health and economy, is high.

- In the developed world, average life expectancy for both men and women is 76.

### Top Ten Countries with Highest Life Expectancy



Source: www.watchmojo.com according to US Census Bureau, International Database  
Photo: © bilderbbox.com © grafikdienst.com

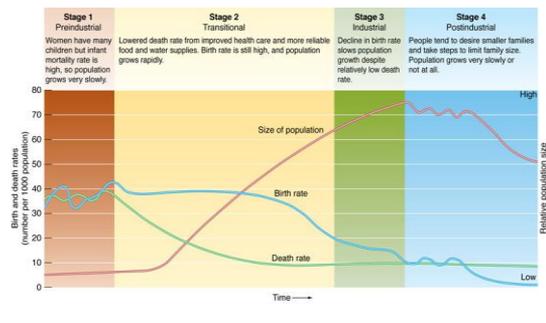
## 2. Life Expectancy

- In developing countries, life expectancy is increasing.
  - For example, at the start of the 1900s a baby born in India would live about 25 years. Now that same child is living 60 years.
  - Throughout the developing world, life expectancy is 63 years.

## Demographic Transitions

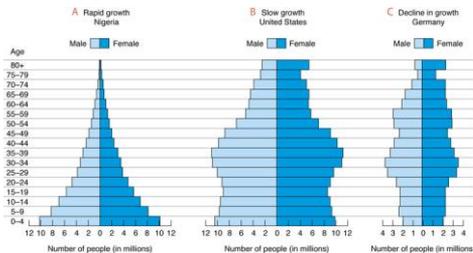
- Country moves from high birth and death rates to low birth and death rates
- Four stages
  - Preindustrial
  - Transitional
  - Industrial
  - Postindustrial

## Demographic Transitions



## Age Structure of Countries

Age structure diagrams show the number of people in each age group in a population.



## Age Structure of Countries

Shape is important! It predicts future population growth.

- Pyramid = fast growth
  - Having lots of young people means that many people are available for reproduction.
  - E.g. Developing Nations like Nigeria, Bolivia

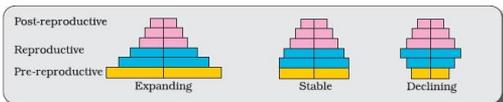


Figure 13.4 Representation of age pyramids for human population

## Age Structure of Countries

- Tapered bases = slow or zero growth
  - More people in post reproductive years means less people available to become parents.
  - E.g. Developed Nations like Canada, USA

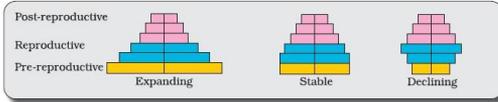


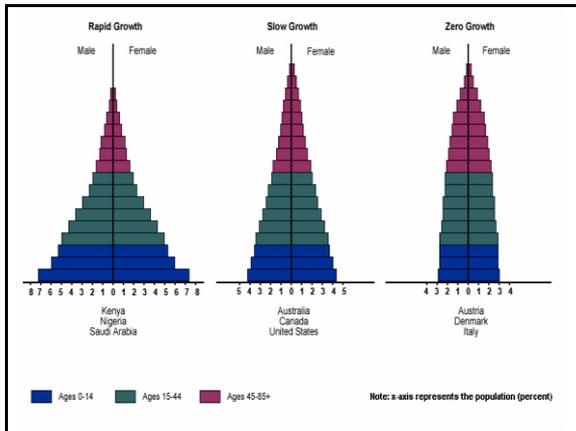
Figure 13.4 Representation of age pyramids for human population

## Age Structure of Countries

- Small base = negative growth
  - In shrinking populations, the pre-reproductive age group is the smallest.
  - E.g. Russia, Bulgaria, Germany



Figure 13.4 Representation of age pyramids for human population



## Future Population Growth

- Worldwide, 28% of the population is under 15 (as of 2007)
- Even if birth rate doesn't increase, the growth rate will increase simply because there are more people reproducing

## Future Population Growth

- Determined by pre-reproductive individuals
- Developed vs. developing countries

