DEFINITION

• Mortality refers to the number of deaths that occur in a particular population.

• As with fertility, mortality in a society can be described in a number of ways.

• Among the various ways demographers calculate length of life, two rates – infant mortality and life expectancy – are the most common measures of a country’s overall level of health.

• The crude death rate refers to the total number of deaths for every 1000 people.

• The crude death rate, while useful for some purposes, is necessarily limited because certain social factors place some people at much greater risk of death than others.

• The very young and the old, for example, have much higher death rates than other age groups.
• Thus, sex- or age-specific death rates are often used to measure the number of people in an age or sex grouping who have died for each 1000 people in that category.

• In fact, death among infants under one year of age have shown the greatest declines of all age groups dropping from about 100 per 1000 live births in 1915 to 11.7 today.

• Finally, life expectancy refers to the number of years, on the average, that people can expect to live.

• Americans have experienced a substantial increase in life expectancy during this century.

• The life expectancy of women has increased more than of men.

• The difference in life expectancy between the sexes was only one year in 1920 while it is almost eight years today.

• When we combine the results of the crude birth rate and the crude death rate, we derive an indication of the growth of a population, and the difference between these two figures is referred to as the rate of natural increase.

• For example, in 1981, the crude birth rate of the United States was 15.9 and the crude death rate was 8.7, yielding a rate of natural increase of 0.72 percent.
Top 10 Countries with Highest Death Rate

Est. Death Rate per 1,000 (2004)

<table>
<thead>
<tr>
<th>Countries</th>
<th>Death Rate</th>
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</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>33.6</td>
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<tr>
<td>Mozambique</td>
<td>30.9</td>
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<tr>
<td>Angola</td>
<td>25.9</td>
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<tr>
<td>Lesotho</td>
<td>24.8</td>
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<tr>
<td>Zambia</td>
<td>24.4</td>
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<tr>
<td>Zimbabwe</td>
<td>23.3</td>
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<tr>
<td>Swaziland</td>
<td>23.1</td>
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<tr>
<td>Malawi</td>
<td>23.0</td>
</tr>
<tr>
<td>Rwanda</td>
<td>21.9</td>
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<tr>
<td>Niger</td>
<td>21.5</td>
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### Conventional Measurement of Mortality

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Explanation</th>
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</table>
| The crude death rate      | The crude death rate refers to the total number of deaths for every 1,000 people. If \( D \) is the total number of deaths among residents in a community during a calendar year, and \( P \) is the average number of persons living in that community during the year, then the crude death rate is:  
\[
\frac{D}{P} \times k \quad (k \text{ is a constant- } 1000 \text{ or } 100,000)
\]  |
| Specific death rates      | A specific death rate may be computed for segments of the community differentiated by age, sex, race, marital status, and other characteristics, provided both \( D \) and \( P \) relate to the same segment.                                       |
| Infant mortality rate     | If \( D \) is the number of deaths (excluding fetal deaths) between birth and age one year among residents in a community during calendar year \( z \), and \( B \), is the total number of live births within the same year, then the infant mortality rate is:  
\[
\frac{D}{B} \times k \quad (k \text{ is constant- } 1000 \text{ or } 100,000)
\]  |
<table>
<thead>
<tr>
<th>Measurement</th>
<th>Explanation</th>
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<tr>
<td>The perinatal mortality rate</td>
<td>the sum of neonatal deaths and fetal deaths (stillbirths) per 1000 births.</td>
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<td>The maternal mortality rate</td>
<td>the number of maternal deaths due to childbearing per 100,000 live births.</td>
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<tr>
<td>The standardized mortality rate-</td>
<td>This represents a proportional comparison to the numbers of deaths that would have been expected if the population had been of a standard composition in terms of age, gender, etc.</td>
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<tr>
<td>The age specific mortality rate (ASMR)</td>
<td>This refers to the total number of deaths per year per 1000 people of a given age (e.g. age 62 last birthday).</td>
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</table>
FACTORS AFFECTING MORTALITY

- Age of country's population.
- Nutrition levels.
- Standards of diet and housing.
- Access to clean drinking water.
- Hygiene levels.
- Levels of infectious diseases.
- Social factors such as conflicts and levels of violent crime.
- Amount and quality of health care available.
SHOCKING FACT!

United States Has Higher Death Rate Than Most Other Countries!
• Although the under-5 mortality rate in the United States has fallen in recent decades, it is still higher than many other wealthy nations – 2.3 times that of Iceland and more than 75 percent higher than the rate of the Czech Republic, Finland, Italy, Japan, Norway, Slovenia and Sweden.

• The causes of child deaths in the industrialized world differ dramatically from those in developing countries. In the developing world, over half of under-5 deaths are caused by pneumonia, diarrhea or newborn conditions.

• In the industrialized world, these problems rarely lead to death. Children’s deaths are most likely the result of injury suffered in traffic accidents, intentional harm, drowning, falling, fire and poisoning.

• Throughout the industrialized world, children from poor or disadvantaged backgrounds are more likely to be injured or killed. Factors such as single parenthood, low levels of maternal education, teenage motherhood, substandard housing, large family size and parental drug or alcohol abuse increase the risks that a child will not survive to age 5.

• Children are far more likely to die during the first year of life than they are at older ages. And death rates for males are substantially higher than rates for females for every age group of children.

• In the United States, American-Indian, Alaska- Native and African-American children have the highest death rates.
Here are some additional facts about child mortality in the industrialized world:

- Only about 1 percent of the 10 million under-5 deaths every year occur in wealthy countries.

- Iceland has the world’s lowest child mortality rate (3 per 1,000 live births).

- Romania has the highest child mortality rate in the more developed world (19 per 1,000 live births).

- Out of 44 more developed countries, the United States is tied for 26th place with Croatia, Estonia and Poland. In all three countries there are 7 child deaths per 1,000 live births.

- There are 14 countries with higher under-5 mortality rates than the United States. They are: Slovakia, Hungary, Lithuania, Latvia, Belarus, Serbia and Montenegro, Bulgaria, Bosnia and Herzegovina, Moldova, Ukraine, Macedonia, Russia, Albania and Romania.

- Within the United States, Connecticut has the lowest child death rate (19.6 deaths among children ages 1 to 4 per 100,000 children) and Wyoming has the highest rate (53.7 deaths per 100,000 children).
• In the United States, between 1980 and 2003, death rates dropped by 46 percent for infants and 51 percent for children ages 1 to 4.

• American-Indian children ages 1 to 4 have the highest death rates (49 per 100,000), followed by African-American children (46 per 100,000), Hispanic children (29 per 100,000), non-Hispanic white children (28 per 100,000) and Asian/Pacific Islander children (23 per 100,000).

• Among wealthy nations, Sweden, the United Kingdom, Italy and the Netherlands have the lowest rates of child deaths due to injury. In the United States and Portugal, the rates of child injury death are twice as high.

• One in 71 mothers in the United States is likely to lose a child before his or her fifth birthday. A mother in the United States has a 2.5 fold greater risk of experiencing the death of a child than a mother in Iceland, Italy or Japan and is almost 3 times more likely to lose a child than a mother in the Czech Republic or Slovakia.

• Whereas only 1 child in 100,000 in the United States dies of pneumonia each year, roughly 1 in 15 children in Angola, Afghanistan, Niger and Sierra Leon die of pneumonia each year. Children in these countries are 6,700 times more likely to die of pneumonia than children in the United States.

• More than 16,500 lives could be saved each year in the United States alone if our under-5 mortality rate was the same as Iceland. If the U.S. rate of under-5 mortality was similar to that of France, Germany and Italy (all 4 per 1,000 live births), over 12,000 child lives could be spared.

• In the eastern countries of Europe, social inequalities are increasing and the AIDS epidemic is growing rapidly, putting more children at risk of death.
MORTALITY IN MALAYSIA

Death rate (deaths/1,000 population)

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<tbody>
<tr>
<td>Malaysia</td>
<td>5.25</td>
<td>5.2</td>
<td>5.16</td>
<td>5.12</td>
<td>5.08</td>
<td>5.06</td>
<td>5.05</td>
<td>5.05</td>
<td>5.02</td>
<td>5.02</td>
<td>4.92</td>
<td>4.93</td>
<td>4.95</td>
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