In this lab you will compare data on the leading causes of death in 1900 and today.

**Problem**
How do the leading causes of death today compare with those of a hundred years ago?

**Materials**
- Colored pencils
- Compass
- Calculator (optional)
- Ruler
- Protractor

**Procedure**
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

**Part 1 Comparing Specific Causes of Death**
2. Look at the following causes of death in the table: (a) pneumonia and influenza, (b) heart disease, (c) accidents, and (d) cancer. Construct a bar graph that compares the numbers of deaths from each of those causes in the 1900’s and today. Label the horizontal axis “Causes of Death.” Label the vertical axis “Deaths per 100,000 People.” Draw two bars side by side for each cause of death. Use a key to show which bars refer to 1900 and which refer to today. Give the graph a title and use appropriate units for the axes.

**Part 2 Comparing Infectious and Noninfectious Causes of Death**
3. In this part of the lab, you will make two pie graphs showing three categories; infectious diseases, noninfectious diseases, and “other.”

4. Start by grouping the data from 1900 into the three categories— infectious diseases, noninfectious diseases, and other causes. Find the total number of deaths for each category. Then find the size of the “pie slice” (the number of degrees) for each category, and construct your circle graph. Remember to give the graph a title and to use the percentages on the graph. To find the size of the infectious disease slice for 1900, for example use the following formula:

\[
\frac{\text{Number of deaths from infectious diseases}}{1,100 \text{ deaths total}} = \frac{x}{360^\circ}
\]

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\frac{\text{Number of degrees in a slice} \times 100}{360^\circ} = ? \%
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</tr>
<tr>
<td>TOTAL</td>
<td>1100</td>
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1. What kind of information did you learn just from examining the data table in Part 1?

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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
- Colored pencils
- Compass
- Ruler
- Calculator (optional)
- Protractor

Procedure
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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How do the leading causes of death today compare with those of a hundred years ago?

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Problem
How do the leading causes of death today compare with those of a hundred years ago?

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How do the leading causes of death today compare with those of a hundred years ago?

Materials
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Compass
Calculator (optional)
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Protractor

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1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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<td>59</td>
</tr>
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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
- Colored pencils
- Compass
- Ruler
- Protractor
- Calculator (optional)

Procedure
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

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How do the leading causes of death today compare with those of a hundred years ago?

Materials
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Compass
Ruler
Calculator (optional)
Protractor

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1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils  Compass  Protractor
Calculator (optional)  Ruler

Procedure
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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</thead>
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In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils
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Calculator (optional)
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1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death - accidents and suicides - are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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\frac{\text{Number of deaths from infectious diseases}}{1,100 \text{ deaths total}} = \frac{x}{360^\circ}
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6. Repeat steps 4 and 5 using the data from today to make the second circle graph. What part of the formula in step 4 do you need to change?
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</thead>
<tbody>
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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials

Colored pencils
Compass
Protractor
Calculator (optional)
Ruler

Procedure
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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Part 2 Comparing Infectious and Noninfectious Causes of Death
3. In this part of the lab, you will make two pie graphs showing three categories; infectious diseases, noninfectious diseases, and “other.”

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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils
Compass
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In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
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Calculator (optional)
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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
- Colored pencils
- Compass
- Ruler

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1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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Part 2 Comparing Infectious and Noninfectious Causes of Death
3. In this part of the lab, you will make two pie graphs showing three categories; infectious diseases, noninfectious diseases, and “other.”

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**Problem**
How do the leading causes of death today compare with those of a hundred years ago?

**Materials**
- Colored pencils
- Compass
- Ruler
- Calculator (optional)
- Protractor

**Procedure**
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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3. In this part of the lab, you will make two pie graphs showing three categories; infectious diseases, noninfectious diseases, and “other.”

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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

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How do the leading causes of death today compare with those of a hundred years ago?

Materials
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Calculator (optional)
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1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils
Calculator (optional)
Compass
Ruler
Protractor

Procedure
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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3. In this part of the lab, you will make two pie graphs showing three categories; infectious diseases, noninfectious diseases, and “other.”

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How do the leading causes of death today compare with those of a hundred years ago?

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- Colored pencils
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1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

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How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils
Compass
Calculator (optional)
Protractor
Ruler

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1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils    Compass    Protractor
Calculator (optional)  Ruler

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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
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Calculator (optional)  Ruler

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1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils
Compass
Ruler

Procedure
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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<td>(I)*</td>
<td></td>
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Causes of Death, Then and Now

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Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
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- Compass
- Calculator (optional)
- Ruler
- Protractor

Procedure
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How do the leading causes of death today compare with those of a hundred years ago?

Materials
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In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
<table>
<thead>
<tr>
<th>Colored pencils</th>
<th>Compass</th>
<th>Protractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculator (optional)</td>
<td>Ruler</td>
<td></td>
</tr>
</tbody>
</table>

Procedure
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

Part 1 Comparing Specific Causes of Death
2. Look at the following causes of death in the table: (a) pneumonia and influenza, (b) heart disease, (c) accidents, and (d) cancer. Construct a bar graph that compares the numbers of deaths from each of those causes in the 1900’s and today. Label the horizontal axis “Causes of Death.” Label the vertical axis “Deaths per 100,000 People.” Draw two bars side by side for each cause of death. Use a key to show which bars refer to 1900 and which refer to today. Give the graph a title and use appropriate units for the axes.

Part 2 Comparing Infectious and Noninfectious Causes of Death
3. In this part of the lab, you will make two pie graphs showing three categories; infectious diseases, noninfectious diseases, and “other.”

4. Start by grouping the data from 1900 into the three categories—infectious diseases, noninfectious diseases, and other causes. Find the total number of deaths for each category. Then find the size of the “pie slice” (the number of degrees) for each category, and construct your circle graph. Remember to give the graph a title and to use the percentages on the graph. To find the size of the infectious disease slice for 1900, for example use the following formula:

\[
\frac{\text{Number of deaths from infectious diseases}}{1,100 \text{ deaths total}} \times \frac{360^\circ}{360^\circ} = x
\]

5. Calculate the percentage represented by each category using this formula:

\[
\frac{\text{Number of degrees in a slice} \times 100}{360^\circ} = ? \%
\]

6. Repeat steps 4 and 5 using the data from today to make the second circle graph. What part of the formula in step 4 do you need to change?
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<table>
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<th>Cause of Death</th>
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<th>Deaths per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
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<td>215</td>
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</tr>
<tr>
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<td>185</td>
<td>Cancer (NI)</td>
<td>205</td>
</tr>
<tr>
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<td>140</td>
<td>Stroke (NI)</td>
<td>59</td>
</tr>
<tr>
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<td>130</td>
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<td>39</td>
</tr>
<tr>
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<tr>
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</tr>
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<td>12</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1100</strong></td>
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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils  Compass  Protractor
Calculator (optional)  Ruler

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1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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<th></th>
<th><del>Today</del></th>
</tr>
</thead>
<tbody>
<tr>
<td>DEATHS PER 100,000</td>
<td>DEATHS PER 100,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAUSE OF DEATH</td>
<td>CAUSE OF DEATH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumonia, influenza</td>
<td>Heart Disease (NI)</td>
<td>281</td>
<td></td>
</tr>
<tr>
<td>(I)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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</tr>
<tr>
<td>TOTAL</td>
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1. What kind of information did you learn just from examining the data table in Part 1?

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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils
Compass
Ruler
Calculator (optional)
Protractor

Procedure
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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3. In this part of the lab, you will make two pie graphs showing three categories; infectious diseases, noninfectious diseases, and “other.”
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\[
\frac{\text{Number of deaths from infectious diseases}}{1,100 \text{ deaths total}} \times 360°
\]

5. Calculate the percentage represented by each category using this formula:

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<tr>
<th><del>1900</del></th>
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<th>DEATHS PER 100,000</th>
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**Problem**
How do the leading causes of death today compare with those of a hundred years ago?

**Materials**
- Colored pencils
- Compass
- Ruler
- Calculator (optional)
- Protractor

**Procedure**
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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\[
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\]

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In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils
Calculator (optional)
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Procedure
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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Materials
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</tr>
</thead>
<tbody>
<tr>
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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils  Compass  Protractor
Calculator (optional)  Ruler

Procedure
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

Part 1 Comparing Specific Causes of Death
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3. In this part of the lab, you will make two pie graphs showing three categories; infectious diseases, noninfectious diseases, and “other.”

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Causes of Death, Then and Now

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How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils
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1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils
Compass
Calculator (optional)
Ruler
Protractor

Procedure
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death-accidents and suicides-are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

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In this lab you will compare data on the leading causes of death in 1900 and today.

Problem
How do the leading causes of death today compare with those of a hundred years ago?

Materials
Colored pencils
Calculator (optional)
Compass
Ruler
Protractor

Procedure
1. The data table on the next page shows the leading causes of death in the United States during two different years. Examine the data and note that two causes of death—accidents and suicides—are not diseases. The other causes are labeled either “I,” indicating an infectious disease, or “NI,” indicating a noninfectious disease.

Part 1 Comparing Specific Causes of Death
2. Look at the following causes of death in the table: (a) pneumonia and influenza, (b) heart disease, (c) accidents, and (d) cancer. Construct a bar graph that compares the numbers of deaths from each of those causes in the 1900’s and today. Label the horizontal axis “Causes of Death.” Label the vertical axis “Deaths per 100,000 People.” Draw two bars side by side for each cause of death. Use a key to show which bars refer to 1900 and which refer to today. Give the graph a title and use appropriate units for the axes.

Part 2 Comparing Infectious and Noninfectious Causes of Death
3. In this part of the lab, you will make two pie graphs showing three categories; infectious diseases, noninfectious diseases, and “other.”

4. Start by grouping the data from 1900 into the three categories—infectious diseases, noninfectious diseases, and other causes. Find the total number of deaths for each category. Then find the size of the “pie slice” (the number of degrees) for each category, and construct your circle graph. Remember to give the graph a title and to use the percentages on the graph. To find the size of the infectious disease slice for 1900, for example use the following formula:

\[
\text{Number of deaths from infectious diseases} = \frac{x}{1,100 \text{ deaths total}} 
\]

5. Calculate the percentage represented by each category using this formula:

\[
\frac{\text{Number of degrees in a slice} \times 100}{360°} = ? \%
\]

6. Repeat steps 4 and 5 using the data from today to make the second circle graph. What part of the formula in step 4 do you need to change?
Table 1: Ten Leading Causes of Death in the United States, 1900 and Today

<table>
<thead>
<tr>
<th></th>
<th>DEATHS PER 100,000</th>
<th></th>
<th>DEATHS PER 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1900</strong></td>
<td></td>
<td><strong>Today</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CAUSE OF DEATH</strong></td>
<td></td>
<td><strong>CAUSE OF DEATH</strong></td>
<td></td>
</tr>
<tr>
<td>Pneumonia, influenza (I)*</td>
<td>215</td>
<td>Heart Disease (NI)</td>
<td>281</td>
</tr>
<tr>
<td>Tuberculosis (I)</td>
<td>185</td>
<td>Cancer (NI)</td>
<td>205</td>
</tr>
<tr>
<td>Diarrhea (I)</td>
<td>140</td>
<td>Stroke (NI)</td>
<td>59</td>
</tr>
<tr>
<td>Heart Disease (NI)</td>
<td>130</td>
<td>Lung Disease (NI)</td>
<td>39</td>
</tr>
<tr>
<td>Stroke (NI)</td>
<td>110</td>
<td>Accidents</td>
<td>35</td>
</tr>
<tr>
<td>Kidney Disease (NI)</td>
<td>85</td>
<td>Pneumonia (I)</td>
<td>31</td>
</tr>
<tr>
<td>Accidents</td>
<td>75</td>
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<td>22</td>
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<tr>
<td>Cancer (NI)</td>
<td>65</td>
<td>HIV infection (I)</td>
<td>16</td>
</tr>
<tr>
<td>Senility (NI)</td>
<td>55</td>
<td>Suicide</td>
<td>12</td>
</tr>
<tr>
<td>Diphtheria (I)</td>
<td>40</td>
<td>Liver Disease (NI)</td>
<td>10</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1100</strong></td>
<td><strong>TOTAL</strong></td>
<td><strong>710</strong></td>
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</table>

**“I” indicates an infectious disease. “NI” indicates a noninfectious disease.**

**Analyze and Conclude**

1. What kind of information did you learn just from examining the data table in Part 1?

2. Why do we use two different types of graph for the same data set?

3. According to your bar graph, which cause of death showed the greatest increase between 1900 and today? Which cause of death showed the greatest decrease?

4. In your circle graphs, which category decreased the most from 1900 to today? Which increased the most?

5. Suggest an explanation for the change in number of deaths due to infectious diseases from 1900 to today.

6. Why do you think the number of deaths, in general, have decreased since the 1900s?

7. How do graphs help you identify patterns and other information in data that you might otherwise overlook?
Causes of Death, Then and Now

In this lab you will compare data on the leading causes of death in 1900 and today.

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How do the leading causes of death today compare with those of a hundred years ago?

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