Measuring Progress

It is important to be able to show whether your programs are effective in achieving your target. Follow these basic formulas to calculate baseline, target, and achieved rates for the selected health outcome.

**Annual Percentage Change**

This measure can be used to track whether progress is on course and determine whether the Healthy People 2020 objectives will be reached. It provides the amount of decline each year that is needed to reach the target.

**Formula**

\[
\left(\frac{\text{Target rate} + \text{Baseline rate}}{}\right)^{\frac{1}{\text{(Target year - Baseline year)}}} - 1 \times 100 = \text{Annual Percent Change}
\]

<table>
<thead>
<tr>
<th>Category</th>
<th>Year</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>2020</td>
<td>7/1,000</td>
</tr>
<tr>
<td>Baseline</td>
<td>2010</td>
<td>10/1,000</td>
</tr>
</tbody>
</table>

**Calculations**

\[
\text{(Target rate + Baseline rate)} = \frac{7}{1,000} + \frac{10}{1,000} = 0.700
\]

\[
\left(\frac{7}{1,000} + \frac{10}{1,000}\right)^{\frac{1}{2020-2010}} = 0.100 = 10\
\]

\[
\left(\frac{7}{1,000} + \frac{10}{1,000}\right)^{0.10} = 0.965
\]

\[
\left(\left(\frac{7}{1,000} + \frac{10}{1,000}\right)^{0.10}\right) - 1 = -0.035
\]

\[
\left(\left(\frac{7}{1,000} + \frac{10}{1,000}\right)^{0.10}\right) - 1 \times 100 = 0.035 \times 100 = -3.5\%
\]

A decline of 3.5 percent per year between year 2010 and 2020 is needed to reach the target.

www.healthypeople.gov
**Measuring Progress**

This equation is used in measuring progress for each objective:

\[
\frac{\text{Current Status} - \text{Baseline}}{\text{Year 2020 Target} - \text{Baseline}} \times 100 = \text{Percentage of Target Achieved}
\]

**Source**