



## Healthy People 2020 and 2030 Cancer Objectives (United States & South Carolina)

Healthy People Objectives are science-based, 10-year national objectives created in order to improve the health of all Americans. Topic areas are developed by lead federal agencies with the most scientific expertise. Some of the federal agencies include the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration, the Health Resources and Services Administration, the National Institutes of Health (NIH), the U.S. Department of Agriculture, and the U.S. Department of Education. The current report “Healthy People 2020 and 2030 Cancer Objectives (National & South Carolina)” only includes cancer objectives based on mortality, incidence, and survival; and all objectives were created by the CDC and NIH (Healthy People 2020).

Healthy People 2020 objectives were calculated from national 2007 baseline data. The goal was to meet the objectives by 2017, 10 years after baseline. All objectives were either based on a projection model or a 10% improvement from the 2007 baseline. South Carolina specific objectives were estimated from 2007 South Carolina baseline data. If the national objective was obtained by a 10% decrease/increase, then the 2020 South Carolina objective was also based off of a 10% decrease/increase from the 2007 baseline South Carolina data. If the national objective was based off a projection, then a rate ratio was calculated between 2007 South Carolina data and 2007 national data. The ratio was then applied to the 2020 national projection to calculate South Carolina’s 2020 projection. This method keeps the disparity between the national data and South Carolina data constant for more accurate predictions. 2020 national objective and the 2007 national data was calculated and applied to the 2007 South Carolina data in order to obtain the 2020 South Carolina objective. The national 2017 data was compared to the national 2020 objectives in order to determine whether or not the objectives were met, and the 2017 South Carolina data was compared to the 2020 South Carolina objectives to determine whether or not the objectives were met.

Healthy People 2030 objectives were calculated from national 2018 baseline data with the goal to meet these objectives by 2028. All objectives are still based on a projection or a 10% improvement. If the national objective was obtained by a 10% decrease/increase, then the 2030 South Carolina objective was also based off of a 10% decrease/increase from the 2018 baseline South Carolina data. If the national objective was based off a projection, then a rate ratio of the difference between the 2030 national objective and the 2018 national data was calculated and applied to the 2018 South Carolina data in order to obtain the 2030 South Carolina objectives. The only exception was the 5-year survival objective which was calculated from 2014 data rather than 2018 data because 2014 was the most up to date data available, nationally. The 2014 5-year survival rates were calculated from data between 2009 and 2013.

Figures 1 and 2 are color coded based on whether or not the objective was met over the 10-year period. A dark green cell indicates that the objective was met by at least twice as much as originally wanted. A light green cell indicates that the objective was met. A light red cell indicates that the objective improved; however, it did not improve enough to meet the goal. Lastly, a dark red cell indicates that the objective either stayed the same or worsened.

**Figure 1: 2020 South Carolina Healthy People Cancer Objectives**

<i>2020 South Carolina Healthy People Objectives</i>	<b>2007 SC (Baseline)<sup>5,6</sup></b>	<b>2020 Objective</b>	<b>Calculation</b>	<b>2017 SC (Final)<sup>5,6</sup></b>
1. Reduce the overall cancer death rate	188.1	169.3	10%	162.4
2. Reduce the lung cancer death rate	56.3	50.7	10%	41.1
3. Reduce the female breast cancer death rate	23.7	21.3	10%	20.6
4. Reduce the death rate from cancer of the uterine cervix	3	2.7	10%	2.3
5. Reduce the colorectal cancer death rate	16.5	14	Projection	13.6
6. Reduce the oropharyngeal cancer death rate	3.3	3	10%	3
7. Reduce the prostate cancer death rate	27.8	25	10%	21.6
8. Reduce the melanoma cancer death rate	2.7	2.4	10%	2.1
9. Reduce invasive colorectal cancer	47.1	40	Projection	35.1
10. Reduce invasive female uterine cervical cancer	8.4	7.6	10%	7.7
11. Reduce late-stage female breast cancer	46.9	44.5	Projection	44.4
12. Increase the 5-year cancer survival rate	62.10%	68.30%	10%	64.20%

Figure 1 illustrates whether or not South Carolina was able to meet the Healthy People 2020 cancer objectives. Most projections for Healthy People 2020 were calculated by the ‘improve by 10%’ method. South Carolina was able to meet all cancer objectives other than increasing the 5-year cancer survival rate and reducing the incidence of invasive uterine cervical cancer. The state of South Carolina did particularly well with reducing lung cancer death rate, reducing cancer of the uterine cervix death rate, reducing prostate cancer death rate, and reducing melanoma cancer death rate.

**Figure 2: 2020 National Healthy People Cancer Objectives**

<i>2020 National Healthy People Objectives</i>	<b>2007 National (Baseline)<sup>1</sup></b>	<b>2020 Objective<sup>1</sup></b>	<b>Calculation</b>	<b>2017 National (Final)<sup>3,4</sup></b>
1. Reduce the overall cancer death rate	179.3	161.4	10%	152.7
2. Reduce the lung cancer death rate	50.6	45.5	10%	36.7
3. Reduce the female breast cancer death rate	23	20.7	10%	19.9
4. Reduce the death rate from cancer of the uterine cervix	2.4	2.2	10%	2.2
5. Reduce the colorectal cancer death rate	17.1	14.5	Projection	13.5
6. Reduce the oropharyngeal cancer death rate	2.5	2.3	10%	2.5
7. Reduce the prostate cancer death rate	24.2	21.8	10%	18.8
8. Reduce the melanoma cancer death rate	2.7	2.4	10%	2.1
9. Reduce invasive colorectal cancer	47.1	40	Projection	37.4
10. Reduce invasive female uterine cervical cancer	8.1	7.3	10%	7.6
11. Reduce late-stage female breast cancer	44.7	42.4	Projection	40.9
12. Increase the 5-year cancer survival rate	65.20%	71.70%	10%	66.90%

Figure 2 illustrates whether or not the nation achieved the cancer related goals of Healthy People 2020. As can be seen, all but three objectives were met. The objectives that were not met were increasing the 5-year cancer survival rate, reducing the incidence of invasive uterine cervical cancer, and reducing the oropharyngeal death rate. The national oropharyngeal death rate did not improve at all over the 10-year period. The nation greatly exceeded their goals regarding reducing the lung cancer death rate, reducing the prostate cancer death rate, and reducing the melanoma cancer death rate.

**Figure 3: 2030 South Carolina Healthy People Cancer Objectives**

<i>2030 South Carolina Healthy People Objectives</i>	<b>2018 SC (Baseline)<sup>5</sup></b>	<b>2030 Objective</b>	<b>Caclulation</b>
1. Reduce the overall cancer death rate	157.4	129.5	Projection
2. Reduce the lung cancer death rate	38.9	28.1	Projection
3. Reduce the female breast cancer death rate	21.8	16.9	Projection
4. Reduce the colorectal cancer death rate	13	8.6	Projection
5.Reduce the prostate cancer death rate	20.1	18.1	10%
6. Increase the 5-year cancer survival rate	*63.4%	65.50%	Projection

\*2014 baseline

Figure 3 illustrates the current Healthy People 2030 objectives for South Carolina. 2030 Healthy People objectives were mostly obtained through projection modeling. Many of the cancer objectives are based on screening and are not shown here. These objectives will be evaluated in 2030, when the 2028 data are available.

**Figure 4: 2030 National Healthy People Cancer Objectives**

<i>2030 National Healthy People Objectives</i>	<b>2018 National (Baseline)<sup>2</sup></b>	<b>2030 Objective<sup>2</sup></b>	<b>Calculation</b>
1. Reduce the overall cancer death rate	149.1	122.7	Projection
2. Reduce the lung cancer death rate	34.8	25.1	Projection
3. Reduce the female breast cancer death rate	19.7	15.3	Projection
4. Reduce the colorectal cancer death rate	13.4	8.9	Projection
5. Reduce the prostate cancer death rate	18.8	16.9	10%
6. Increase the 5-year cancer survival rate	*64.1%	66.20%	Projection

\*2014 baseline

Figure 4 illustrates the national Healthy People 2030 objectives. As can be seen, the objectives are mainly based on projections which are asking for a larger than 10% improvement. One thing to note is that the 2030 5-year cancer survival objective is lower than the 2020 objective due to a change in data source.

In summary, South Carolina generally has higher rates of cancer incidence and mortality as compared to the national average; however, the mortality and incidence rates in South Carolina are decreasing consistently along with the national rates. South Carolina had a lower incidence rate of colorectal cancer compared to the nation. Healthy People 2030 baseline data from 2018 also shows South Carolina’s colorectal cancer death rate is lower than the 2018 baseline data for the nation. Three areas of concern for South Carolina regarding the Healthy People 2020 objectives are oropharyngeal death rates, as they are 20% higher than the national average, prostate cancer death rates, as they are 15% higher than national average, and lung cancer death rates, as they are 12% higher than the national average.

## References

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