

SECTION 1

# PRIMARY PREVENTION OF CANCER



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Primary prevention is action taken to decrease the chance of getting a disease or condition. Cancer prevention continues to be a priority in Maryland for public health practitioners and health care providers. This section focuses on risk factors where healthy behaviors may prevent or lower the risk of cancer.

One's risk for developing and dying from cancer may be reduced by maintaining a healthy weight (eating a healthy diet and being physically active), preventing or stopping tobacco use, getting vaccinated to prevent certain types of cancer, limiting alcohol use, and avoiding excessive exposure to ultraviolet rays from the sun and tanning beds.<sup>37</sup> Table 3 summarizes estimates of the proportion of cancer deaths attributable to various risk factors, many of which are modifiable.

**Table 3.** Proportion of Cancer Cases Attributable to Potentially Modifiable Risk Factors in the U.S.

RISK FACTOR	ESTIMATE
Cigarette Smoking	19.0%
Excess Body Weight	7.8%
Alcohol	5.6%
UV Radiation	4.7%
Physical Inactivity	2.9%
Low Fruit/Vegetable Intake	1.9%
HPV Infection	1.8%

Source: Islami F, Goding Sauer A, Miller KD, Siegel RL, Fedewa SA, et. al. Proportion and Number of Cancer Cases and Deaths Attributable to Potentially Modifiable Risk Factors in the United States. *CA Cancer J Clin* 2018 Jan;68(1):31-54.

## TOBACCO USE

Tobacco use remains the number one cause of preventable death and disease in the U.S. Nearly 40 million U.S. adults still smoke cigarettes, and about 4.7 million middle and high school students use at least one tobacco product, including e-cigarettes, placing their health at risk.<sup>38,39</sup> Each year, nearly half a million Americans die prematurely of smoking or exposure to secondhand smoke.<sup>40</sup> Another 16 million live with a serious illness caused by smoking.<sup>41</sup> The U.S. Surgeon General's 2014 Report on the Health Consequences of Smoking links tobacco use to Type 2 diabetes, rheumatoid arthritis, respiratory and cardiovascular diseases, stroke, and more than 15 different types of cancers, including cancer of the oral cavity and pharynx, larynx, liver, lung, bronchus, trachea, stomach, colon, rectum, cervix, esophagus, bladder, kidney, pancreas, and blood.<sup>42</sup>

Approximately 30% of all cancer deaths in the U.S. are attributable to smoking, and nearly 90% of lung cancer deaths among men and 80% of lung cancer deaths among women are due to smoking.<sup>43,44</sup> Lung and bronchus cancers are the leading causes of cancer deaths in both men and women in Maryland, responsible for nearly 13,500 deaths from 2012 to 2016.<sup>45</sup> Furthermore, there are important disparities in tobacco-related cancers. Despite lower smoking rates, Black and African American adults in Maryland die from lung and bronchus cancer at similar rates to White adults.<sup>46</sup> This disparity may be in part due to high menthol cigarette use in African American communities, as well as access to care issues.