

# The American Cancer Society's Facts & Figures: 2020 Edition

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**A**s I write this in February, the American Cancer Society (ACS) has recently published their report on the state of cancer for this year (Siegel, Miller, & Jemal, 2020). This annual compilation of statistics, which reflects on trends and improvements in cancer mortality for various cancers, proved to be especially important. Cancer remains the second leading cause of death in the United States, but statistics reported this year were particularly heartening. The ACS reported that the cancer death rate in the United States from 2016 through 2017 dropped 2.2%, the largest single-year decline in mortality ever reported (Siegel, Miller, & Jemal, 2020). Since 1991, the cancer death rate has dropped 29%, which is great news for patients and health-care providers alike. This translates to an estimated 2.9 million fewer cancer deaths that would have occurred had cancer mortality continued at peak rates (Siegel et al., 2020).

Researchers state that the decline is primarily related to reduced smoking rates and improvements in the treatment of lung cancer; additionally, improved melanoma therapies have also contributed to the

overall decline in cancer mortality rates (Siegel et al., 2020). We have experienced long-term declines in the death rates for the three other most commonly occurring cancers (colorectal, breast, and prostate), although there were slower reductions in these rates for female breast and colorectal cancers in the past decade, and for prostate cancer, rates were essentially stagnant (Siegel et al., 2020).

## LUNG CANCER

Although improvements in lung cancer mortality rates were significant, this deadly disease still caused more deaths in 2017 than breast, prostate, colorectal, and brain cancers combined (Siegel et al., 2020). This is where we need to make additional, rapid improvements in policy and education for young adults. Tobacco use continues to be the leading preventable cause of death in the United States. Cigarette smoking increases the risk for many cancers, including head and neck, bladder, stomach, and colorectal cancers, and acute myeloid leukemia. It has also been linked to prostate and ovarian cancer, and the risk increases with the duration and intensity of smoking (ACS, 2020).

Intake of tobacco is not limited to cigarettes; other combustible forms of tobacco include cigars, pipes, and waterpipes, often including flavorings that appeal strongly to young adults or teenagers (ACS, 2020). And although the use of waterpipes may appear to carry less risk than cigarette smoking, the practice delivers the same or higher levels of toxins (ACS, 2020).

### Vaping Devices

Electronic nicotine delivery systems (ENDS; e-cigarettes or vapes) aerosolize a liquid nicotine solution and have become wildly popular. JUUL brand products have become the best-selling e-cigarette in retail outlets (ACS, 2020). Long-term effects cannot be calculated as of yet, as it would take years to acquire statistics on cancer death rates related to the use of vaping products. An initial study examining the changes in genes and molecular pathways in e-cigarette users and smokers vs. nonsmokers showed an alarming trend (Tommasi et al., 2019). The researchers found that the e-cigarette users demonstrated deregulation of important genes and pathways, suggesting that vaping causes changes similar to those caused by smoking (Tommasi et al., 2019).

Although more data are needed, risks of tobacco and their effect on cancer rates are well known. The short-term effects include adverse effects on airways and blood vessels, and some users have been diagnosed with severe pulmonary disease (ACS, 2020). The ACS position statement on the use of ENDS is that no youth or young adult should begin using ENDS. Secondhand smoke is unsafe at any level, which contributes to smoking-related diseases such as lung, heart, and respiratory illnesses, including cancer. Comprehensive smoke-free laws can help to reduce this risk (ACS, 2020).

### ROLE OF ADVANCED PRACTITIONERS

Advanced practitioners can contribute to the education of youth and young adults regarding the potential for harm and the possibility of developing tobacco-related cancers. Although the improve-

ments in the cancer mortality rates are laudatory, advanced practitioners should continue to promote preventive behaviors to contribute to further reductions in death rates from cancer. Obesity is thought to have contributed to the slower reductions noted in mortality for breast, colorectal, and prostate cancers. This is something we can impact, with a better focus on healthier lifestyles and exercise. Improved access to health care will help to decrease preventable cancers, such as cervical, lung, and melanoma cancers.

### IN THIS ISSUE

We've got a full issue for you this month, including two Research & Scholarship articles on burnout in hematology/oncology nurse practitioners by Laura Bordeanu and colleagues, and the role of advanced practitioners in the management of delirium in the intensive care unit by Sarah Rebal and colleagues. For those of you working with patients receiving CAR T-cell therapy, Victoria Reiser discusses monitoring and management of complications with those challenging patients. Mary Heery and colleagues discuss necessary precautions for patients on aromatase inhibitors, and Wendy Vogel covers how to determine fair market value for your services as an oncology advanced practitioner. Don't miss our Grand Rounds feature on high-risk patients for breast cancer and our coverage of glasdegib, a novel Hedgehog pathway inhibitor for acute myeloid leukemia. ●

### References

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