Report: Application of Cancer Reducing Strategies in the U.S. is Suboptimal

Socioeconomic status, educational attainment consistently linked to higher risk, lower prevention

The latest edition of the American Cancer Society's review on recent cancer prevention and early detection efforts in the United States finds there's a long way to go in fully adopting behaviors that can reduce cancer risk. The review article says while many proven strategies exist to reduce cancer risk, their application has been suboptimal, especially in socioeconomically deprived populations.

> *"With a few exceptions, men and women with lower educational attainment reported both a higher prevalence of modifiable cancer risk factors and lower utilization of potentially life-saving cancer screenings"*

The review provides a comprehensive overview of major cancer risk factors and screening utilization in the U.S. It is published in *Cancer Epidemiology Biomarkers and Prevention*, and accompanies the ACS's biennial report, *Cancer Prevention and Early Detection Facts & Figures*, which also includes data on youth risk factors and vaccination.

In the U.S., cancer death rates have declined steadily in recent decades, dropping 27% between the years 1991 and 2016. But there is opportunity for improvement. Approximately 45% of the estimated 607,000 cancer deaths expected to occur in the U.S. in 2019 are associated with potentially modifiable risk factors such as cigarette smoking, excess body weight, alcohol intake, physical inactivity, and unhealthy diet. Cigarette smoking alone accounts for approximately 29% of all cancer deaths.

The article, led by Ann Goding Sauer, MSPH, provides an updated review of the prevalence of modifiable cancer risk factors, screening, and vaccination for U.S. adults, focusing on differences by educational attainment and race/ethnicity.

Tobacco

In 2017, more than 34 million adults were current smokers (16.0% of men; 12.3% of women; 14.1% overall). Despite significant overall declines, smoking prevalence remains substantially higher among some populations. For example, while only 5.0% of female college graduates smoke, 30.1% of men with less than a high school education were smokers, a six-fold difference. Among both men and women, smoking prevalence was lowest among Asians (10.6% and 3.6%, respectively) and highest among American Indian/Alaska Natives (27.3% and 21.5%, respectively).

Excess body weight

Excess body weight is defined as being overweight or obese; in 2015-2016, approximately 7 in 10 adults had excess body weight. While the prevalence of overweight has remained relatively stable among adults since the early 1960s, obesity has increased markedly. In 1960-1962, 10.7% of men and 15.8% of women were obese; in 2015-2016, these proportions were 37.9% and 41.1%, respectively, representing about 93.3 million adults. Over half of black (54.9%) and Hispanic (50.6%) women were classified as obese compared with 38.0% of white women.

Alcohol

In 2014, about 4% of all cancer deaths in the U.S. could be attributed to alcohol consumption. In 2017, an estimated 5.3% of adults were classified as heavier drinkers (>14 drinks per week for men; >7 drinks/week for women) with similar prevalence by gender. Heavier alcohol consumption increased with higher levels of education among women (2.6% of those with less than a high school diploma vs. 7.3% of college graduates); among men there was little variation by education. Among both men and women, the proportion of heavier drinking was higher among whites (men: 5.9%, women: 7.0%) than other race/ethnicities.

Diet

About 5% of cancer deaths in 2014 were attributed to poor diet. Overall, most Americans do not meet the guidelines for healthy eating. In 2017, only about 16% of adults reported consuming three or more servings of vegetables per day. About 1 in 3 adults reported eating two or more servings of fruit daily. Vegetable consumption was substantially lower among Hispanics and blacks relative to whites, Asians, and American Indian/Alaska Natives; fruit consumption was less variable.

Physical activity

An estimated 2% of cancer deaths can be attributed to physical inactivity. More than 1 in 4 U.S. adults (26.2%) reported no leisure-time physical activity, with a marked disparity along educational lines: nearly half (48.7%) of people with less than a high school education reported no leisure time activities compared with 14.4% of college graduates.

Ultraviolet Radiation

An estimated 1.5% of cancer deaths can be attributed to UV radiation from the sun and indoor tanning. In 2015, more than 1 in 3 adults (35.4%) reported at least one sunburn in the previous year. Among adults, indoor tanning in the past year declined from 5.5% in 2010 to 3.6% in 2015.

Cancer Screening

Early detection of cancer through screening reduces mortality from cancers of the breast, uterine cervix, colon, rectum, and lung. In addition, screening for colorectal and cervical cancers can prevent these cancers by identifying and removing precancerous lesions.

In 1987, less than one-third (29%) of women 40 years and older reported having a mammogram within the past two years. That number rose to 70% by 2000, but in 2015 had dropped to 64%. Mammography use in the past two years was lowest among the uninsured (31%).* An estimated 55% of women 45 years and older with less than a high school degree reported having a mammogram within the past two years compared to about 78% of college graduates.

Among women ages 21 to 65, 83% were up-to-date with cervical cancer screening in 2015. Only about 72% of women with less than a high school education were up-to-date with cervical cancer screening compared to about 91% of college graduates. Uptake was lowest among the uninsured (64%) and recent immigrants (70%).*

In 2015, 63% of adults ages 50 years and older were up-to date for colorectal cancer screening. Prevalence was less than or equal to 50% among Hispanics, Asians, people with less than a high school diploma, recent immigrants, and the uninsured.*

In 2015, only 4% of eligible former and current smokers reported having a low-dose computed tomography screening for lung cancer in the past year.

“With a few exceptions, men and women with lower educational attainment reported both a higher prevalence of modifiable cancer risk factors and lower utilization of potentially life-saving cancer screenings,” write the authors. Patterns of cancer risk factors and screening by race/ethnicity are more complex and reflect cultural factors that influence behaviors.

“Reducing these modifiable cancer risk factors and improving cancer screening will require broad implementation of national, state, and local policies, social/community efforts, as well as individual behavioral interventions.” They conclude “Such systematic efforts should be enhanced across all populations, particularly those most at risk, including those with lower [socioeconomic status] and racial/ethnic minorities.”

Article: Current Prevalence of Major Cancer Risk Factors and Screening Test Use in the United States: Disparities by Education and Race/Ethnicity. Ann Goding Sauer, Rebecca L. Siegel, Ahmedin Jemal, and Stacey A. Fedewa. Cancer Epidemiol Biomarkers Prev April 3 2019 DOI: 10.1158/1055-9965.EPI-18-1169

*Statistic published in: *Cancer Prevention & Early Detection Facts & Figures 2019-2020*. Atlanta: American Cancer Society; 2019.

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