

'Eye-opening' Disparities in Uptake of Cancer Prevention Strategies

Megan Brooks

April 03, 2019

Many Americans do not follow proven strategies to reduce their risk of developing cancer, and this is particularly true among those of lower socioeconomic status and racial minority groups, according to the American Cancer Society's (ACS's) latest review of the prevalence of major modifiable cancer risk factors and uptake of cancer screening in US adults.

The degree of disparities in the uptake of cancer-reducing strategies was "eye-opening," lead author Ann Goding Sauer, MSPH, ACS senior associate scientist for surveillance research, told *Medscape Medical News*.

"For example, the prevalence of smoking among men without a high school degree was six times higher than among female college graduates, and less than 50% of those without a high school degree were up to date with [colorectal cancer](#) screening compared to more than 70% of college graduates," she noted.

What will it take to turn the tide? Sauer said, "Systematic efforts are needed to reduce the prevalence of risk factors and improve preventive/early detection measures. In particular, such efforts should be intensified in populations most at risk, including those with lower socioeconomic status and racial/ethnic minorities."

"The data presented are not new," commented Kirsten B. Moysich, PhD, distinguished professor of oncology, Department of Cancer Prevention and Control, and professor, Department of Immunology, Roswell Park Comprehensive Cancer Center, Buffalo, New York.

"We have known for a long time that these modifiable risk factors are still very prevalent in the US, and I agree that the efforts in reducing these risk factors are suboptimal," Moysich, who wasn't involved in the review, told *Medscape Medical News*.

The review by Sauer and colleagues was [published online](#) April 3 in *Cancer Epidemiology Biomarkers and Prevention* and accompanies the ACS's [biennial report](#), *Cancer Prevention and Early Detection: Facts and Figures*, which also includes data on youth risk factors and vaccination.

US cancer death rates have declined steadily since the 1990s, but the decline could be accelerated by eliminating disparities in major risk factors and in the utilization of screening, Sauer and colleagues note in their report.

About 45% of the estimated 607,000 cancer deaths expected in the United States this year are associated with potentially modifiable risk factors, such as cigarette smoking, excess body weight, alcohol intake, physical inactivity, and unhealthy diet. The following is a snapshot of key data points in the ACS's latest report.

Tobacco

Cigarette smoking accounts for more than 1 in 4 of all cancer deaths. In 2017, more than 34 million adults were current smokers, including 16% of men, 12% of women, and 14% overall. Despite a significant overall decline in smoking, it seems some populations haven't gotten the message. For example, 30% of men who didn't graduate from high school were smokers, compared with only 5% of female college graduates, a sixfold difference. Among both men and women, smoking prevalence was lowest among Asians and was highest among American Indian/Alaska Natives.

"Many, many countries have graphic consequences of smoking on packs of cigarettes. In the US, there are promotional inserts in packs of cigarettes," Moysich commented. "Also, in many states, cigarettes are too affordable and indoor smoking is still allowed. It is up to national and state legislators to change that, but so far the political will has not prevailed."

Many Overweight and Sedentary

In 2015-2016, about 7 of 10 US adults were overweight or obese. Although the prevalence of overweight has remained fairly stable among adults since the early 1960s, [obesity](#) has increased markedly. In 1960-1962, roughly 11% of men and 16% of women were obese. In 2015-2016, 38% of men and 41% of women were obese, representing about 93.3 million adults. The latter represents about 93.3 million adults. More than half of black (55%) and Hispanic (51%) women were obese, compared with 38% of white women.

A lack of exercise is a contributing factor, with more than 1 of 4 adults (26%) reporting no leisure-time physical activity. Again there was a marked disparity by level of education: nearly half (49%) of people who failed to graduate from high school reported no leisure time activities, compared with 14% of college graduates. An estimated 2% of cancer deaths can be attributed to physical inactivity.

"Obesity is the new tobacco," Moysich commented. "The increase in obesity over the past few decades is astounding, and there is a total lack of a societal response to this public health crisis. In addition to cardiovascular disease and diabetes, obesity is associated with greater risk of many cancers. Again, there is no political appetite to implement measures aimed at encouraging physical activity and improving diet. The exact opposite seems to occur by mocking Michelle Obama's vegetable garden and [former New York City] Mayor Bloomberg's ban of large soda drinks," said Moysich.

Poor Diet

About 5% of cancer deaths in 2014 were attributed to poor diet, Sauer and colleagues report. Overall, most Americans do not meet the guidelines for healthy eating. In 2017, only about 16% of adults ate three or more servings of vegetables each day. About one third of adults ate 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.

One reason for the disparities, according to Moysich: "Good food is expensive and bad food is cheap, but I am not sure why fruits and vegetables are much more expensive in the US than in Europe, for instance."

Alcohol a Cancer Contributor

In 2014, about 4% of all cancer deaths in the United States could be linked to drinking alcohol. In 2017, an estimated 5.3% of adults were heavier drinkers (>14 drinks per week for men; >7 drinks per week for women). The prevalences were similar regarding the sexes. Heavier alcohol intake increased with higher levels of education among women (2.6% of those who did not graduate from high school vs 7.3% of college graduates). There was little variation by education among men. Among both men and women, the proportion of heavier drinking was higher among whites than other races/ethnicities.

"I think the US is doing a better job than most countries by having a stricter minimum drinking age and restricted locations (in most states) where alcohol is sold," Moysich noted.

Underutilization of Screening

It's no secret that detecting cancer early through screening reduces mortality from cancers of the breast, uterus, cervix, colon, rectum, and lung. Screening for colorectal and cervical cancers can prevent these cancers by identifying and removing precancerous lesions.

But according to Sauer and colleagues, rates of breast, cervical, and colorectal cancer screening are 20% to 30% lower among adults who did not graduate from high school compared to college graduates. Screening for these cancers is also lower among Hispanics, Asians, and American Indians/Alaska Natives.

In 2000, 70% of women aged 40 years or older had had a mammogram within the past 2 years, but that number fell to 64% in 2015. [Mammography](#) use in the past 2 years was lowest among the uninsured (31%). An estimated 55% of women aged 45 years or older who had not graduated from high school reported having had a mammogram within the past 2 years, compared to about 78% of college graduates.

Similarly, only about 72% of women with less than a high school education are up to date with [cervical cancer](#) screening, compared to about 91% of college graduates, the data show. The lowest rates are among the uninsured and recent immigrants.

Fewer than two thirds (63%) of adults aged 50 and older are up to date for colorectal cancer screening. The prevalence was ≤50% among Hispanics, Asians, people who did not graduate from high school, recent immigrants, and the uninsured.

As for lung cancer screening, only 4% of eligible former and current smokers have had a low-dose CT screening exam 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 Sauer and colleagues.

"My bottom line," said Moysich, "is that to improve the suboptimal strategies to prevent cancer, there needs to be some intervention from the leaders of the states and the country. Interventions from national institutes or organizations like the ACS have not been fruitful in the past, with the exception of a decline in adult smoking prevalence. However, in this political climate, I am not optimistic," she told *Medscape Medical News*.

The research was supported by the ACS. Sauer and Moysich have disclosed no relevant financial relationships.

Cancer Epidemiol Biomark Prev. Published online April 3, 2019. [Full text](#)