

TEXAS

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Overweight and Obesity-Related Cancers in Texas

NATIONAL PROGRAM OF CANCER REGISTRIES SUCCESS STORY

SUMMARY: After cigarette smoking, excess body weight is considered to be the second largest contributor to cancer risk, accounting for approximately 8% of all cancer cases diagnosed in the United States in 2014. The Texas Cancer Registry (TCR) published a web report describing trends in the incidence of 13 overweight- and obesity-associated cancer sites to increase awareness of excess body weight as a leading risk factor for cancer. We found a significant overall increase in the incidence rate of overweight- and obesity-associated cancers in Texas between 2005 and 2014, with variations by sex, age, race, ethnicity, and urban-rural classification.

CHALLENGE: Obesity rates have more than tripled since the 1960s. Texas currently has the 8th highest rate of obesity in the United States, with 69% of adults and 33% of 10-17 year olds reported as overweight or obese. A recent CDC *vital signs* publication highlighted the increased incidence of cancers associated with overweight and obesity between 2005 and 2014 in the United States.¹ We investigated whether a similar trend occurred in Texas, and identified any disparities to help determine how interventions can best be implemented to reduce cancer incidence.

SOLUTION: Using TCR data, we replicated the CDC's study on 13 overweight/obesity-associated cancers: post-menopausal female breast cancer, colorectal cancer, renal cell kidney cancer, endometrial cancer, thyroid cancer, pancreatic cancer, multiple myeloma, liver cancer, ovarian cancer, esophageal adenocarcinoma, gastric cardia (upper stomach) cancer, gallbladder cancer, and meningioma. Because the introduction of screening programs for pre-cancerous polyps has reduced the incidence of colorectal cancer, we investigated trends in the overall rate for these 13 cancers with and without colorectal cancer.¹ Public health professionals, health care providers, researchers, policy makers, and others can use this web report to guide research, develop initiatives to encourage healthy lifestyles, and allocate limited resources, among other uses. Intervention programs that reduce rates of overweight and obesity, especially in younger adults, could help reduce the overall cancer burden.

RESULTS: After excluding colorectal cancer, the overall incidence rates of overweight/obesity-associated cancers in Texas significantly increased by 0.3% per year from 2005 to 2014. This increase was slightly lower than that observed in the U.S. population (0.8%). Results varied by sex, age at diagnosis, rural-urban classification, and race/ethnicity. The largest percentage increase occurred in the following segments of those four categories: males (1% per year), 20-39 year olds (3.3% per year), people living in rural areas (1.4% per year), and non-Hispanic whites (0.3% per year).

After accounting for the proportion of incident cases that are estimated to be attributed to overweight and obesity for each cancer site,² endometrial cancer contributed the most cases in Texas, with approximately 1,900 new cancer diagnoses in 2014 likely to be directly attributable to excess body weight. One thousand or more incident cases of liver cancer, kidney cancer, and female post-menopausal breast cancer were also likely to be attributable to excess body weight in 2014.

Liver cancer showed the largest annual percentage increase from 2005 to 2014 (3.6% per year), followed by thyroid cancer (2.7% per year), and endometrial cancer (1.8% per year). Pancreatic cancer increased significantly among females only (0.8% per year).

Endometrial cancer is the 4th most commonly diagnosed cancer in Texas women, while liver cancer is the 4th leading cause of cancer mortality in Texas males. Both liver cancer and endometrial cancer are strongly associated with overweight and obesity – approximately 34% of liver cancer and 60% of endometrial cancer cases are attributed to excess body weight.² The incidence rate of liver cancer was higher and showed a large percentage increase in Texas compared to the overall U.S. population, while the incidence rate of endometrial cancer was lower in Texas than in the U.S. population, but showed a larger percentage increase.

Trends at each cancer site varied by race/ethnicity and age, and are detailed in the complete web report that is available on the TCR website: <https://www.dshs.texas.gov/tcr/data/obesity-associated-cancers.aspx>.

SUSTAINING SUCCESS: The TCR plans to collaborate with our grant companion program, the Texas Comprehensive Cancer Control Program (TCCCP), by providing data and statistics that will contribute and support community education/intervention programs aimed at reducing incidence of overweight/obesity-associated cancers in Texas. To address overweight and obesity associated cancers, TCCCP has partnered with Feeding Texas to increase access to and availability of healthy food products at East Texas Food Bank food distribution sites. In addition, the TCR will continue to monitor trends in overweight- and obesity-associated cancers, and regularly update the web report.

REFERENCES

1. Vital signs overweight/obesity-associated cancers report: <https://www.cdc.gov/mmwr/volumes/66/wr/mm6639e1.htm>.
2. Islami, F., Goding Sauer, A., Miller, K.D., Siegel, R.L., et al. (2018). Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States. *CA Cancer J. Clin.* 68(1):31-54.

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