

Prevalence of Smoking and Obesity Among U.S. Cancer Survivors: Estimates From the National Health Interview Survey, 2008–2012

Meredith L. Shoemaker, MPH, Mary C. White, ScD, Nikki A. Hawkins, PhD, and Nikki S. Hayes, MPH

Shoemaker is a research fellow, White is chief of the Epidemiology and Applied Research Branch, Hawkins is a behavioral scientist, and Hayes is chief of the Comprehensive Cancer Control Branch, all in the Division of Cancer Prevention and Control, National Center for Chronic Disease Prevention and Health Promotion, at the Centers for Disease Control and Prevention in Atlanta, GA.

This research was funded, in part, by an appointment (Shoemaker) to the Research Participation Program at the Centers for Disease Control and Prevention administered by the Oak Ridge Institute for Science and Education through an interagency agreement between the U.S. Department of Energy and the Centers for Disease Control and Prevention. The National Health Interview Survey and preparation of the manuscript were entirely funded by the U.S. government. The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Shoemaker and White contributed to the conceptualization, design, and analysis. All authors contributed to the manuscript preparation.

Shoemaker can be reached at xhr1@cdc.gov, with copy to editor at ONFEditor@ons.org.

Submitted July 2015. Accepted for publication September 8, 2015.

Key words: cancer survivorship; smoking cessation; obesity; smoking

ONF, 43(4), 436–441.

doi: 10.1188/16.ONF.43-04AP

Purpose/Objectives: To describe smoking and obesity prevalence among male and female cancer survivors in the United States.

Design: Cross-sectional survey.

Setting: Household interviews.

Sample: 9,753 survey respondents who reported ever having a malignancy, excluding nonmelanoma skin cancers.

Methods: Data from the National Health Interview Survey (2008–2012) were used to calculate weighted smoking status prevalence estimates. Cross-tabulations of smoking and weight status were produced, along with Wald chi-square tests and linear contrasts.

Main Research Variables: Cancer history, smoking status, obesity status, gender, age, and age at diagnosis.

Findings: Seventeen percent of cancer survivors reported current smoking. Female survivors had higher rates of current smoking than males, particularly in the youngest age category. Male survivors who currently smoked had lower obesity prevalence rates than males who previously smoked or never smoked. Among female survivors, 31% were obese and no significant differences were seen in obesity prevalence by smoking status for all ages combined.

Conclusions: The findings highlight the variation in smoking status and weight by age and gender. Smoking interventions may need to be targeted to address barriers specific to subgroups of cancer survivors.

Implications for Nursing: Nurses can be instrumental in ensuring that survivors receive comprehensive approaches to address both weight and tobacco use to avoid trading one risk for another.

Among cancer survivors, smoking increases the risk of all-cause mortality, cancer-specific mortality, and secondary cancers related to smoking. Conversely, smoking cessation after a diagnosis improves cancer prognosis (U.S. Department of Health and Human Services, 2014). Population-based estimates of smoking prevalence among cancer survivors in the United States range from 9%–18% (Tseng, Lin, Martin, Chen, & Partridge, 2010; Underwood et al., 2012; Westmaas, Alcaraz, Berg, & Stein, 2014). Effective smoking cessation interventions exist for cancer survivors (de Moor, Elder, & Emmons, 2008), and research shows that many cancer survivors are motivated to quit after diagnosis (Berg, Carpenter, Jardin, & Ostroff, 2013; Hawkins et al., 2010). Leading organizations recommend tobacco use assessment and cessation support as part of cancer survivorship care planning (Hewitt & Ganz, 2007; Hewitt, Greenfield, & Stovall 2005; Toll, Brandon, Gritz, Warren, & Herbst, 2013). Despite motivation to quit and support from leading survivorship authorities, tobacco cessation can be extremely difficult for individuals to achieve. A study by Westmaas et al. (2015), which was guided by theories of health behavior, found