Additional Benefits of Maintaining a Healthy Lifestyle After Quitting Smoking
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Tobacco smoking is the single greatest avoidable cause of morbidity and mortality in the US, resulting in more than 480,000 deaths each year. It is well established that smoking cessation at any age has profound benefits and can reduce the risk of premature death and disability, improve overall health status, and enhance quality of life. Since 1965, the quit ratio has increased, with the greatest quitting observed among persons 65 years or older. Although former smokers are more likely to die of cancer, cardiovascular disease, and respiratory disease and have a lower life expectancy than people who have never smoked, adherence to healthful behaviors could potentially improve their health outcomes beyond quitting alone.

In JAMA Network Open, Inoue-Choi and colleagues reported their findings from a large National Institutes of Health–American Association of Retired Persons Diet and Health prospective cohort study of approximately 160,000 former smokers in 6 states (California, Florida, Pennsylvania, New Jersey, North Carolina, and Louisiana) and 2 metropolitan areas (Atlanta, Georgia, and Detroit, Michigan) in the US with more than 20 years of follow-up. The authors administered a baseline questionnaire to assess demographic, anthropometric, medical, and behavioral factors, such as smoking, physical activity, diet, and alcohol consumption. They followed up the participants from the date they returned their baseline questionnaires until death or December 31, 2012, whichever occurred first. They used 4 categories of adherence scores (0-2, 3-4, 5-6, and 7-8) calculated for body weight, diet, physical activity, and alcohol consumption and used the lowest adherence score category (scores, 0-2) as the reference group. They estimated hazard ratios and 95% CIs for all-cause and cause-specific mortality using Cox proportional hazards regression models. After multivariable adjustment, they found that former smokers who adhered to healthy lifestyle recommendations, such as maintaining a healthy body weight, eating a healthy diet, being physically active, and limiting alcohol consumption, had a lower risk of all-cause mortality and cause-specific mortality for cancer, cardiovascular disease, and respiratory disease compared with former smokers who were less adherent to the recommendations. Study results also demonstrated a dose-response association in adherence to these healthy lifestyles, and the associations were independent of health status, history of comorbid conditions, number of cigarettes smoked per day, years since cessation, and age at smoking initiation.

The results of this large prospective cohort study highlight the health benefits of former smokers’ adherence to guidelines that aim to reduce overall chronic disease risk. Managing body weight, dietary intake, physical activity, and alcohol intake may prove to have important benefits above and beyond quitting smoking alone, particularly at a time when COVID-19 is markedly reducing overall lifespan among groups with comorbid conditions. It is well known that chronic disease risk behaviors often cluster and may interact synergistically and incrementally to influence chronic disease risk. There are various approaches to examining the co-occurrence of these behaviors to better understand their interrelatedness.

Tobacco dependence is a chronic relapsing condition. Chaiton et al estimated that it takes a mean of 30 or more quit attempts to stop smoking for good. Weight gain after smoking cessation has been identified as a contributing factor for relapse. Therefore, participation in a physical exercise program is helpful in sustaining smoking abstinence. Excessive alcohol use is also a trigger for smoking, and those who stop smoking are more likely to consume less alcohol than those who continue to smoke. Hence, it is important to monitor alcohol use after cessation and intervene appropriately.
Prior community and clinical interventions have also targeted multiple risk behaviors. Among smokers who are quitting, there may be a need for more intensive interventions that reinforce the adoption of multiple healthful behaviors. The call for interventions that target multiple risk behaviors, sequentially or concurrently, is not new. However, such interventions may require the intentional and deliberate use of a multilevel, multidomain model to address tobacco use and dependence prevention and treatment.

We are at a critical juncture where both helping smokers quit and helping former smokers improve overall health require a systems approach across multiple health domains, stakeholders at multiple levels, new financial investment, and new, more comprehensive vision of an endgame strategy. As demonstrated by the study by Inoue-Choi et al, among former smokers, nearly 60% have some college education or less. Inoue-Choi et al did not stratify the hazard ratios by educational attainment or race and ethnicity, but prior studies show that people with low educational attainment and from some racial groups tend to have overall worse chronic disease health outcomes than people with higher educational attainment and who are White. The authors acknowledged as limitations that the sample is predominantly non-Hispanic White with a relatively high socioeconomic status and that the findings may not generalize to racial and ethnic minority groups or those with low socioeconomic status who may experience various social determinants of health differently from the population in the study sample. These data call into question the vision of a tobacco endgame that must address inequities in tobacco use that disproportionately affect racial and ethnic minority groups and low socioeconomic status populations.

It is time to engage in strategic dialogue that outlines a range of practical, ethical, and impactful interventions that incorporate non–tobacco-related metrics (eg, body mass index, physical activity, and alcohol use) for former smokers and particularly those who are often left behind, including in collection of and analyses of data that would help direct promising interventions. Such interventions can be conducted in clinical and community settings and include policy changes that are aligned with a multilevel chronic disease prevention model aimed at addressing co-occurring social determinants of health at multiple levels of influence (individual, interpersonal, community, and societal) and domains (biological, behavioral, physical, and built environment, sociocultural environment, and health care system). The benefits of multilevel interventions are also multidimensional. Addressing multiple determinants of health at the same time is cost-effective and has been found to be a good strategy to address health inequities. An equitable tobacco endgame must view harm reduction from a broader lens—one that includes multiple nontobacco metrics and targets the underlying social determinants, such as educational level, income, and neighborhood context, the types of interventions that ultimately reduce harm to former smokers.

In conclusion, the associations described between body weight, diet, physical activity, and alcohol use recommendations and all-cause and specific cause mortality in the article by Inoue-Choi and colleagues provides new evidence for developing policy recommendations to enhance tobacco use relapse prevention at multiple levels. The incorporation of physical activity, dietary modification, and reduced alcohol intake could be beneficial during and after a successful tobacco cessation program.

ARTICLE INFORMATION
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REFERENCES