Self-Reported Prediabetes and Risk-Reduction Activities—United States, 2006

MMWR. 2008;57:1203-1205
1 figure, 1 table omitted

At least one fourth of U.S. adults are known to have prediabetes, a condition defined as having impaired fasting glucose (plasma glucose level of 100 to <126 mg/dL after an overnight fast), impaired glucose tolerance (plasma glucose level of 140 to <200 mg/dL after a 2-hour oral glucose tolerance test), or both. Persons with prediabetes are at increased risk for developing type 2 diabetes, heart disease, and stroke. However, lifestyle changes can prevent or delay development of diabetes and its complications among persons with prediabetes. To assess the prevalence of self-reported prediabetes among U.S. adults and the prevalence of activities that can reduce the risk for diabetes, CDC analyzed responses to questions regarding prediabetes asked for the first time in the 2006 National Health Interview Survey. This report summarizes the results of that analysis, which determined that, although at least one fourth of U.S. adults are known to have prediabetes through surveys that included laboratory testing, in 2006, only an estimated 4% of U.S. adults had been told they had prediabetes. Among those who had been told they had prediabetes, 68% had tried to lose or control weight, 55% had increased physical activity or exercise, 60% had reduced dietary fat or calories, and 42% had engaged in all three activities. Persons at greater risk for diabetes should be tested according to published recommendations, and persons with prediabetes should lose or control their weight and increase their physical activity to reduce their risk for developing diabetes (BOX).
The findings in this report are subject to at least two limitations. First, NHIS interviews are household based and do not include persons who are institutionalized, including those living in nursing homes. Second, the 2006 NHIS questions regarding self-reported prediabetes were asked for the first time. Hence, no previous studies are available for comparison and validation.

Interventions to prevent or delay onset of type 2 diabetes in persons with prediabetes are feasible and cost effective, and lifestyle interventions are more cost effective than medications. The gap in prevalence between those with prediabetes and those aware of their condition presents an opportunity to reduce the burden of diabetes by increasing awareness of prediabetes and en-
couraging adoption of healthier lifestyles and risk-reduction activities.

REFERENCES

9 Available.

*Categorized as normal weight (body mass index [BMI] of <25 kg/m²), overweight (25 to <30 kg/m²), or obese (≥30 kg/m²), using height and weight reported by participant.

SMOKING-ATTRIBUTABLE MORTALITY, YEARS OF POTENTIAL LIFE LOST, AND PRODUCTIVITY LOSSES—UNITED STATES, 2000-2004

MMWR. 2008;57:1226-1228

1 table omitted

CIGARETTE SMOKING AND EXPOSURE TO TOBACCO SMOKE are associated with premature death from chronic diseases, economic losses to society, and a substantial burden on the United States health-care system. Smoking is the primary causal factor for at least 30% of all cancer deaths, for nearly 80% of deaths from chronic obstructive pulmonary disease, and for early cardiovascular disease and deaths.1 In 2005, to assess the economic and public health burden from smoking, CDC published results of an analysis of smoking-attributable mortality (SAM), years of potential life lost (YPLL), and productivity losses in the United States from smoking during 1997-2001.2 The analysis was based on data from CDC’s Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC) system,3 which estimates SAM, YPLL, and productivity losses based on data from the National Health Interview Survey and death certificate data from the National Center for Health Statistics. This report presents an update of that analysis for 2000-2004, the most recent years for which source data are available. The updated analysis indicated that, during 2000-2004, cigarette smoking and exposure to tobacco smoke resulted in at least 443,000 premature deaths, approximately 5.1 million YPLL, and $96.8 billion in productivity losses annually in the United States. Comprehensive, national tobacco-control recommendations have been provided to the public health community with the goal of reducing smoking so substantially that it is no longer a significant public health problem in the United States.3,4

The adult and the maternal and child health SAMMEC software modules were used to estimate SAM, YPLL, and productivity losses attributed to diseases caused by smoking. Sex- and age-specific smoking-attributable deaths were calculated by multiplying the total number of deaths for 19 adult and four infant disease categories by estimates of the smoking-attributable fraction (SAF)† of preventable deaths. The attributable fractions provide estimates of the public health burden of each risk factor and the relative importance of risk factors for multifactorial diseases. Because of the effect of interactions between various risk factors, attributable fractions for a given disease can total more than 100%. For adults, SAFs were derived using sex-specific relative risk (RR) estimates from the American Cancer Society’s Cancer Prevention Study-II (CPS-II) for current and former smokers for each cause of death for the period 1982-1988. For ischemic heart disease and cerebrovascular disease deaths, RR estimates also were stratified by age (35-64 years and ≥65 years). Sex- and age-specific (35-64 years and ≥65 years) current and former cigarette smoking prevalence estimates from the National Health Interview Survey also were used to calculate SAFs. For infants, SAFs were calculated by using pediatric RR estimates and maternal smoking prevalence estimates from birth certificates. Smoking-attributable YPLL and productivity losses were estimated by multiplying sex- and age-specific SAM by remaining life expectancy and lifetime earnings data.6 In addition, smoking-attributable residential fire-related deaths and lung cancer and heart disease deaths attributable to exposure to secondhand smoke were included in the SAM, but not in YPLL and productivity loss estimates.

During 2000-2004, smoking resulted in an estimated annual average of 269,655 deaths among males and 173,940 deaths among females in the United States. The three leading specific causes of smoking-attributable death were lung cancer (128,922), ischemic heart disease (126,005), and chronic obstructive pulmonary disease (COPD).† Among adults aged ≥35 years, 160,848 (41.0%) smoking-attributable deaths were caused by cancer, 128,497 (32.7%) by cardiovascular diseases, and 103,338 (26.3%) by respiratory diseases (excluding deaths from second-hand smoking and from residential fires). Smoking during pregnancy resulted in an estimated 776 infant deaths annually during 2000-2004. An estimated 49,400 lung cancer and heart disease deaths annually were attributable to exposure to secondhand smoke. The average annual SAM estimates also included 736 deaths from smoking-attributable residential fires.

During 2000-2004, on average, smoking accounted for an estimated 3.1 million YPLL for males and approximately 2.0 million YPLL for females annually, excluding deaths from smoking-attributable residential fires and adult deaths from secondhand smoke. Estimates for average annual smoking-attributable productivity losses were approximately $96.8 billion ($64.2 billion for males and $32.6 billion for females) during this period.

Reported by: B Adhikari, PhD, J Kahende, PhD, AMalaicher, PhD, T Pechacek, PhD, V Tong, National Center for Chronic Disease Prevention and Health Promotion, CDC.

CDC Editorial Note: During 2000-2004, an estimated 443,000 persons in the United States died prematurely each year as a result of smoking or exposure to secondhand smoke. This figure is higher than the average annual estimate of approximately 438,000 deaths during 1997-2001.2 The number of smoking-attributable deaths varies according to trends in smoking prevalence and the number of deaths from diseases caused by smoking. SAM estimates also change when a causal re-