

Mortality of Smoking by Gender
Sam Gutterman, FSA, CERA, FCAS, MAAA

Presented at the Living to 100 Symposium

Orlando, Fla.

January 8–10, 2014

Copyright 2014 by the Society of Actuaries.

All rights reserved by the Society of Actuaries. Permission is granted to make brief excerpts for a published review. Permission is also granted to make limited numbers of copies of items in this monograph for personal, internal, classroom or other instructional use, on condition that the foregoing copyright notice is used so as to give reasonable notice of the Society's copyright. This consent for free limited copying without prior consent of the Society does not extend to making copies for general distribution, for advertising or promotional purposes, for inclusion in new collective works or for resale.

Abstract

Exposure to cigarette smoke has had and will continue to have a huge effect on mortality. Significant differences in smoking prevalence rates by gender have contributed to varying levels and rates of improvement in mortality over the last several decades and are expected to continue to influence mortality improvement differently over the next several decades.

The combined effect of greater historical smoking prevalence rates by males and their corresponding earlier and larger reduction has in part been responsible for the recent improvement in mortality rates for males compared to that for females in the United States. Similar patterns are evident in almost all economically developed countries, although their timing and levels differ. The patterns in underdeveloped countries will likely follow similar patterns as concerns emerge about the effect of smoking on the mortality of their citizens.

The objective of this paper is to compare smoking prevalence and cessation by gender and the effect on smoking-attributable and, in turn, all-cause mortality. A summary of mortality attribution approaches used to enhance the evaluation of the effect of smoking and projections of mortality rates by gender is also provided.