The American Cancer Society Cancer Prevention Study I: 12-Year Followup of 1 Million Men and Women

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INTRODUCTION   The American Cancer Society (ACS) Cancer Prevention Study I (CPS-I) is the largest prospective mortality study of diseases caused by tobacco use ever conducted in terms of person-years of observation (PYO's). The study, which began in 1959 and continued through September 1972, was designed and directed by Dr. E. Cuyler Hammond (Garfinkel, 1985). The publication in 1966 of the 3-year followup of this population (Hammond, 1966) played a critical role in establishing the causal linkage between smoking and several diseases, and it remains one of the most comprehensive presentations of the disease risks caused by smoking. The ACS used 68,116 volunteers to enroll the 1,078,894 men and women in the study. The 12-year followup of this cohort, the population used in the analyses presented in this report, includes more than 11 million person-years. Previous analyses of the 12-year followup of this study were more limited in the detail presented (Hammond et al., 1977; U.S. Department of Health and Human Services, 1989); the results in this chapter represent the most complete description of the 12-year followup of this cohort reported to date. The data are presented in as much detail as possible, recognizing that a unique contribution of this study is the large number of PYO's available for analysis. Because the data cover the spectrum of tobacco-related diseases, a comprehensive description of all the findings is not feasible within the limitations of this chapter. The major focus of the chapter is to present descriptive analyses of all-cause mortality and cause-specific mortality for lung cancer, coronary heart disease (CHD), cerebrovascular disease (CVD), and chronic obstructive pulmonary disease (COPD). A more extensive presentation of cause-specific mortality is included in Appendix A. A set of detailed tables presenting the major cause mortality experience of the cohort by number of cigarettes, attained age, and duration of smoking is contained in Appendix B.

METHODS

Description of the Study Population

Recruitment of the study population of 1,078,894 subjects was accomplished by 68,116 ACS volunteers. Each volunteer was asked to recruit about 10 households with at least one person older than 45 years of age. All household members older than 30 years were asked to complete a questionnaire. Volunteers were asked not to recruit strangers or casual acquaintances. Enrollment was completed in fall 1959. Approximately 3 percent of the questionnaires were discarded because they were incomplete or the respondents were not traced for administrative

reasons. Annual followup questionnaires were collected for the first 6 years and again in 1972 for the 12-year followup. The 12-year followup includes more than 11 million PYO's. Current cigarette smokers whose data are reported in this chapter include all who answered yes to the question "Do you smoke now?," excluding those who also reported current use of pipes or cigars.

Approximately 7 percent of the study population was nonwhite, and 95 percent of the subjects lived in the United States or Canada. The 25 States represented are Arizona, California, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, and Virginia. Deaths were reported by the volunteers, and death certificates were obtained from the appropriate State health departments. Approximately 18 percent of the subjects traced died within the 12 years of followup, and death certificates were obtained in 95 percent of the reported deaths. Deaths were coded according to the *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death* (World Health Organization, 1957, pp. 78-98), in a version that used two digits. The overall standardized mortality at the 12-year followup reached 81 percent of that of the United States.

ANALYSIS OF CPS-I DATA SET   Analyses have been performed separately for white males and white females. There were not sufficient numbers of deaths or PYO's to perform all analyses with these methods for blacks. Except where noted, data were not pooled across gender or race.

Followup   Most subjects were enrolled for participation during October through December 1959, although some were enrolled in early 1960. For analysis, the period of followup began July 1, 1960, allowing a period for death caused by preexisting conditions at the beginning of the study; subjects dying before July 1, 1960, were excluded. Followup surveys were conducted according to the following schedule, with questionnaires completed at the dates marked with an asterisk:

September 30, 1960	September 30, 1964
September 30, 1961*	September 30, 1965*
September 30, 1962	September 30, 1971
September 30, 1963*	September 30, 1972*

When subjects were lost to followup, the last completed survey date prior to loss to followup was used as the censoring date.

Date of death was taken as the first day of the month of death. Person-months of observation (PMO's) accrued month by month until the date of loss to followup, date of death, or end of study on September 30, 1972, in which case subjects were censored alive. A maximum of 147 months of observation was accrued by participants who completed the whole period

of the study. Deaths were tallied according to age at death, and PMO's were accrued dynamically during the period of followup across several age groups.

The CPS-I data set includes information on 456,491 males, with known death dates for 117,199, and 594,551 females, with known death dates for 88,353.

Descriptive Tables for CPS-I Data Set   Analyses were restricted to never-smokers and individuals who smoked cigarettes only. Current cigar and pipe smokers were excluded, as were users of smokeless tobacco. Never-smokers were individuals who indicated at the time of the initial survey that they never smoked cigarettes regularly. Current smokers were individuals who indicated current cigarette smoking at the time of the initial survey. Former smokers were individuals who indicated at the time of the initial survey that they were former cigarette smokers and did not indicate current smoking at any subsequent followup surveys or who indicated that they had quit for at least 2 years on the followup surveys. Followup time for former smokers began to accrue after they had quit for at least 2 years.

Age-specific PYO's and numbers of deaths for the white male and female groups separated into never-smoker, current smoker, and former smoker categories and black male and female groups separated into never-smoker and current smoker categories are presented in *Appendix C*. The appendix tables present deaths due to lung cancer, CHD, CVD, COPD, and all-cause mortality during the period of followup. Lung cancer deaths include lung cancer as primary, secondary (contributing cause), or tertiary (any mention on the death certificate) cause of death (code 62); the other diseases are for primary cause of death only (CHD = 00 or 01; CVD = 07, 08, 09; COPD = 3C, 34, 3D).

Mortality Rate Ratios   Tables 1 through 14 present mortality rates, rate ratios, and rate differences for current smokers and former smokers in comparison with never-smokers. These ratios are calculated by dividing the rate for current smokers or former smokers by the rate for never-smokers of the same age group. The rate ratio for all levels of cigarette consumption combined for a particular age group is calculated by weighting the smoking-specific rates by the PMO's for each level of consumption. Rate ratio across age groups also is presented, calcula4ed by standardization to the U.S. 1980 census population. All rates reported in this chapter are based on observed rates. Some tables for black smokers show a second set of risk estimates calculated using death rates for black smokers and white never-smokers of the same sex. Respondents whose levels of consumption were unknown are included in the calculation for combined levels of consumption.

Tables 1 and 2 present risk ratio of mortality by years of duration of smoking and level of cigarette consumption. Because each level of duration has contributions from several different levels of attained age, standardization was carried out by age within each cell. Within each cell of duration by consumption, age standardization was accomplished by weighting the contribution of the age-specific never-smoker comparison group using the PMO's of the same-age smoker group; that is, rates for never-smokers were

Table 1

Mortality rate ratios for white male current smokers, by level of duration of smoking—comparison never-smoker group weighted to match smoker person-years of observation for each (age x duration x cigarettes per day) cell[a]

Cigarettes Per Day	Duration										
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+
Lung Cancer											
1-9			1.26	4.42	0.47	3.45	4.06	4.29	3.69	4.31	5.42
10-19		2.30	2.83	2.37	5.69	6.93	8.55	9.64	9.00	15.04	8.05
20	4.86	9.16	3.24	6.18	11.03	9.85	14.07	14.17	16.10	17.00	14.98
21-39		3.51	8.18	4.77	14.00	16.91	17.43	20.77	25.20	25.10	25.64
40+			7.83	11.07	15.98	19.45	22.25	28.28	24.47	29.98	26.69
Combined	1.26	3.98	4.20	5.47	10.30	11.68	14.04	15.29	15.54	17.05	13.15
Coronary Heart Disease											
1-9	0.89	1.21	0.73	1.18	1.43	1.37	1.25	1.32	1.31	1.24	0.99
10-19	0.75	1.44	1.67	1.96	1.88	1.75	1.74	1.52	1.48	1.52	1.14
20	1.67	1.29	1.91	2.23	2.45	2.15	1.92	1.71	1.71	1.64	1.22
21-39	1.41	0.99	2.68	2.84	2.42	2.16	2.02	1.81	1.71	1.76	1.22
40+	5.54	0.74	3.08	3.23	3.13	2.66	2.34	1.97	1.97	1.87	1.33
Combined	1.47	1.21	1.82	2.24	2.30	2.08	1.90	1.68	1.63	1.59	1.16
Cerebrovascular Disease											
1-9		1.48	0.63	1.11	0.98	0.84	1.40	1.34	1.26	1.07	0.77
10-19		1.84	1.53	1.82	1.15	1.14	1.57	1.49	1.46	1.07	0.92
20		1.36	1.48	1.67	1.46	1.69	1.76	1.61	1.61	1.19	1.00
21-39		1.93	2.40	2.15	2.02	1.78	2.24	1.87	1.81	1.18	1.09
40+		1.71		2.64	2.26	2.64	2.28	2.41	1.57	1.74	1.26
Combined		1.57	1.28	1.74	1.51	1.62	1.85	1.68	1.56	1.18	0.96

Table 1 (continued)

Cigarettes Per Day	Duration										
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+
Chronic Obstructive Pulmonary Disease											
1-9				3.36	2.17	3.09	9.27	8.97	12.18	11.57	8.00
10-19			3.06	5.73	4.47	5.32	7.51	8.07	11.44	13.60	10.51
20	29.95	10.76	6.86	3.60	2.69	7.45	12.92	15.23	13.80	15.47	14.96
21-39			5.69	9.28	4.07	7.22	11.94	18.73	21.34	20.75	18.40
40+					6.23	10.99	18.92	17.44	25.56	20.51	19.33
Combined	7.50	3.30	3.59	4.59	3.67	7.03	12.15	14.01	15.42	15.47	12.98
All-Cause Mortality											
1-9	0.60	1.22	0.80	1.11	1.25	1.26	1.32	1.39	1.42	1.44	1.12
10-19	0.77	1.19	1.29	1.50	1.63	1.65	1.66	1.66	1.63	1.66	1.28
20	1.24	1.02	1.41	1.73	2.05	1.96	2.04	1.95	1.92	1.83	1.48
21-39	1.20	1.01	1.66	1.98	2.17	2.23	2.25	2.15	2.21	2.17	1.71
40+	2.37	0.73	2.04	2.44	2.78	2.71	2.63	2.56	2.38	2.21	1.81
Combined	1.01	1.07	1.37	1.72	2.00	2.00	2.03	1.94	1.89	1.81	1.40

[a] Within each cell of duration by consumption, age standardization was accomplished by weighting the contribution of the age-specific never-smoker comparison group using the person-months of observation (PMO's) of the same-age smoker group; that is, rates for never-smokers were standardized by age to observed smoker PMO's within each cell.

Table 2

Mortality rate ratios for white female current smokers, by level of duration of smoking—comparison never-smoker group weighted to match smoker person-years of observation for each (age x duration x cigarettes per day) cell[a]

Cigarettes Per Day	Duration										
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+
Lung Cancer											
1-9	0.52	1.04	1.22	0.17	1.97	1.71	1.40	0.40	1.01		
10-19	2.07		2.18	2.34	2.96	3.26	4.37	3.00	3.82	7.93	
20	1.55	2.01	5.87	4.41	7.09	7.05	6.75	9.23	6.41	15.55	
21-39	9.99		4.88	7.27	12.25	12.35	13.08	12.30	20.43	12.32	
40+	24.15		4.29	12.27	11.16	12.75	18.92	19.37		28.26	
Combined	1.63	0.89	3.00	2.91	5.00	5.21	5.72	5.63	4.81	7.73	
Coronary Heart Disease											
1-9	1.24	0.90	1.08	1.13	1.21	0.99	1.01	0.97	1.22	1.05	0.71
10-19	2.28	1.43	1.90	1.93	1.96	1.77	1.64	1.58	1.48	1.25	0.40
20	1.61	2.05	2.48	2.18	2.25	1.96	1.86	1.76	1.51	1.46	0.96
21-39		3.04	3.02	2.44	2.77	2.56	2.22	1.75	1.57	1.08	2.18
40+	5.14	5.41	2.00	2.99	3.20	2.33	2.27	1.56	1.36	0.82	
Combined	1.58	1.40	1.73	1.75	1.88	1.67	1.60	1.46	1.40	1.21	0.72
Cerebrovascular Disease											
1-9	1.80	1.15	1.28	0.95	1.00	0.93	1.10	0.81	0.77	0.20	0.71
10-19	1.46	1.18	1.88	1.59	1.65	1.59	1.43	1.63	1.13	0.89	1.04
20	2.18	1.45	2.07	1.96	2.17	2.02	1.78	1.24	1.08	1.29	0.97
21-39		2.99	1.78	2.54	1.74	2.39	1.79	1.49	0.97	0.76	2.66
40+	5.49	3.82	2.61	4.18	2.53	3.16	2.36	2.48	1.62	1.79	
Combined	1.77	1.33	1.69	1.55	1.60	1.61	1.49	1.27	1.00	0.74	0.92

Table 2 (continued)

Cigarettes Per Day	Duration										
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+
Chronic Obstructive Pulmonary Disease											
1-9				1.36	2.11	4.33	3.61				
10-19	5.85	2.61		2.15	3.76	6.29	8.69	10.19	11.68	16.05	7.65
20		3.56	6.89	5.90	7.70	11.57	15.99	20.79	16.62	13.32	
21-39				8.15	4.26	9.10	17.37	25.45	35.19	29.08	
40+				11.33	12.19	15.00	32.25	11.02		70.37	160.70
Combined	1.52	1.48	1.66	3.42	4.69	7.87	10.94	11.30	10.41	11.27	4.45
All-Cause Mortality											
1-9	1.07	0.95	0.98	1.06	1.11	1.01	1.16	0.98	1.00	0.95	0.73
10-19	1.11	0.96	1.29	1.29	1.47	1.38	1.46	1.47	1.35	1.12	0.85
20	1.15	1.22	1.52	1.54	1.69	1.72	1.69	1.68	1.55	1.70	1.17
21-39	0.42	1.23	1.51	1.70	1.86	2.00	2.04	1.87	1.72	1.57	1.48
40+	1.76	1.55	1.95	2.31	2.16	2.26	2.22	2.37	2.12	2.22	0.72
Combined	1.08	1.04	1.26	1.34	1.49	1.47	1.53	1.45	1.34	1.25	0.88

[a] Within each cell of duration by consumption, age standardization was accomplished by weighting the contribution of the age-specific never-smoker comparison group using the person-months of observation (PMO's) of the same-age smoker group; that is, rates for never-smokers were standardized by age to observed smoker PMO's within each cell.

standardized by age to observed smoker PMO's within each cell. Respondents whose level of consumption was unknown are included in the calculation for combined levels of consumption. The rate ratios shown in these tables reflect the weighted sums across age levels within each category of duration and smoking level and, therefore, include the effect modification produced by both age and duration within any cell rather than being standardized by age to a defined population.

Tables 3 and 4 present rate ratio of mortality by years of duration of cessation for former smokers by level of former smoking. The comparison never-smoker rates are age standardized within each cell to the PMO's of former smokers using the same method as in Tables 1 and 2. There were not enough black former smokers in the survey to complete these tables for blacks.

Tables 5 through 10 present mortality rates and rate ratio of mortality by 15-year age groups, level of consumption, and sex and race, all standardized to U.S. 1980 population by 5-year age groups within cells. The "all-ages" value across age groups also is presented, calculated by standardization to U.S. 1980 standard population, age 30 and older. Respondents whose level of consumption was unknown are included in the calculation for combined levels of consumption.

Duration-Specific Mortality Rate Ratios and Attributable Rates   The tables in Appendix B present duration-specific mortality rate ratios and excess mortality rates by number of cigarettes smoked per day and attained age. These tables are calculated using modeled, rather than observed, death rates for never-smokers. Modeling of never-smoker rates was used to stabilize estimates for death rates among younger groups of never-smokers. The low numbers of deaths in age groups younger than 50 years often resulted in rates of zero or rates that were considered unstable. Modeling allowed estimation of rates for the younger age groups of never-smokers that were above zero and increased smoothly with age. Followup data were tabulated for 92,307 white male never-smokers and 375,649 white female never-smokers. Deaths were tabulated in the age group for age at the time of death. Death certificates list primary causes of death, secondary contributing causes, and underlying conditions. Lung cancer deaths were tabulated for any mention of lung cancer on the death certificate; only the primary cause of death was used to calculate death rates from CHD, CVD, and COPD. Therefore, some deaths may have been included in both lung cancer and other-cause-of-death categories. PMO's were accrued on a month-by-month basis to the current age group. These results allowed calculation of the rate of deaths per 100,000 person-years of observation (PYO's) (PYO's/12 = PMO's) for each age group.

Never-smoker rates were modeled using both Poisson regression and linear regression of log(rate) techniques, all regressed to the median age of 5-year intervals between 40 and 85 years of age. A close fit of the data to an exponential curve was demonstrated, with close agreement between the models. Tables 1 through 5 in Appendix D show the observed death rates

Table 3
Mortality rate ratios for white male former smokers by duration of cessation and level of cigarette consumption—comparison never-smoker group weighted to match former smoker person-years of observation for each (age x duration x cigarettes per day) cell[a]

Cigarettes Per Day	Duration of Cessation							
	2-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
Lung Cancer								
1-9	2.83	1.68	1.22			0.58	1.38	1.89
10-19	7.96	3.50	2.91	2.04	0.96	2.16	1.68	
20	11.68	10.49	5.03	2.22	1.86	1.12	1.55	4.10
21-39	14.30	9.18	4.85	4.88	2.04		4.13	3.69
40+	27.88	12.36	7.77	3.74	3.99	0.89		
Combined	13.12	8.44	4.61	2.89	2.04	1.19	1.84	3.18
Coronary Heart Disease								
1-9	1.55	1.36	1.38	1.08	0.71	1.01	0.83	0.46
10-19	2.53	1.56	1.26	0.93	0.93	0.92	0.77	0.62
20	3.00	1.56	1.20	1.09	0.97	0.98	1.13	0.70
21-39	2.65	2.03	1.55	1.29	1.13	1.09	0.95	0.56
40+	2.96	1.68	1.72	1.15	1.02	0.98	1.25	0.39
Combined	2.66	1.64	1.37	1.13	0.99	0.96	0.93	0.55
Cerebrovascular Disease								
1-9	1.72	1.45	1.29	1.42	0.69	0.57	0.37	0.92
10-19	1.62	1.33	1.14	0.95	0.73	0.84	0.68	0.57
20	1.33	1.05	1.03	0.95	1.17	0.84	0.79	0.58
21-39	1.46	0.75	0.90	0.76	0.53	0.56	1.58	
40+	2.27	1.41	1.05	1.23	1.36	0.90	0.97	1.23
Combined	1.62	1.16	1.05	1.01	0.93	0.78	0.80	0.65
Chronic Obstructive Pulmonary Disease								
1-9		6.46	2.25	2.67	3.29			
10-19	21.03	12.35	9.02	2.07	0.95	0.85	1.01	2.49
20	41.10	15.27	11.85	7.05	3.75	1.13	2.89	
21-39	31.00	28.14	11.39	5.57	1.40	1.98		
40+	57.03	34.25	10.33	9.37	4.00		4.99	
Combined	36.14	18.89	10.33	5.64	2.80	1.42	2.28	2.49
All-Cause Mortality								
1-9	1.74	1.37	1.25	1.08	0.67	0.83	0.80	0.73
10-19	2.18	1.43	1.24	1.01	0.87	0.93	0.80	0.59
20	2.84	1.64	1.30	1.10	1.01	1.04	1.06	0.74
21-39	2.57	1.92	1.48	1.23	1.00	1.01	1.06	0.56
40+	3.18	2.13	1.74	1.30	1.16	1.08	1.23	0.79
Combined	2.58	1.69	1.39	1.15	0.98	0.96	0.91	0.66

[a] *Within each cell of duration by consumption, age standardization was accomplished by weighting the contribution of the age-specific never-smoker comparison group using the person-months of observation (PMO's) of the same-age smoker group; that is, rates for never-smokers were standardized by age to observed smoker PMO's within each cell.*

Table 4

Mortality rate ratios for white female former smokers by duration of cessation and level of cigarette consumption—comparison never-smoker group weighted to match former smoker person-years of observation for each (age x duration x cigarettes per day) cell[a]

Cigarettes Per Day	Duration of Cessation							
	2-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
Lung Cancer								
1-9	2.13	1.89	0.45		2.38	1.81		
10-19		0.95	0.61	3.06	2.42	3.65		
20	4.31		0.76	0.98	1.66			
21-39				16.99	10.90			
40+								
Combined	2.85	1.51	0.58	3.19	2.52	2.61		
Coronary Heart Disease								
1-9	1.41	1.46	0.82	0.69	0.75	1.08	0.64	0.64
10-19	3.15	1.52	1.13	0.79	0.83	0.45	0.53	0.35
20	3.45	1.79	1.08	1.12	1.27	0.97	0.25	
21-39	1.99	0.88	0.51	0.63				
40+	5.52	1.49	0.86			1.48	1.99	
Combined	2.23	1.53	0.98	0.84	0.88	0.96	0.63	0.63
Cerebrovascular Disease								
1-9	1.78	0.90	1.10	0.80	0.69	0.42	0.63	0.83
10-19	0.99	0.88	1.47	0.93	0.62	1.01	0.42	
20	4.41	1.33	1.14	1.20	1.41	1.10	0.59	1.11
21-39	4.29	4.07	1.83	1.45	1.41			
40+	6.67	3.70	2.11			3.47		
Combined	2.28	1.18	1.25	1.01	1.11	0.84	0.57	0.92
Chronic Obstructive Pulmonary Disease								
1-9	16.08		5.97	4.13			8.64	
10-19		3.82	4.61	5.79	4.67			
20		9.52	2.91	7.35			33.48	
21-39		28.31						
40+		47.91						
Combined	16.08	9.46	5.15	5.45	4.67		13.74	
All-Cause Mortality								
1-9	1.97	1.16	1.10	0.82	0.94	0.93	0.79	0.65
10-19	1.92	1.34	1.22	0.88	0.79	0.84	0.75	0.56
20	2.84	1.53	1.18	1.16	1.22	1.33	1.17	0.52
21-39	2.87	1.27	0.95	1.08	1.36	0.60	0.87	0.95
40+	2.56	1.67	1.50	1.26	1.29	1.75	1.09	
Combined	2.17	1.31	1.15	0.94	0.98	1.02	0.88	0.63

[a] *Within each cell of duration by consumption, age standardization was accomplished by weighting the contribution of the age-specific never-smoker comparison group using the person-months of observation (PMO's) of the same-age smoker group; that is, rates for never-smokers were standardized by age to observed smoker PMO's within each cell.*

Table 5
Mortality rates among white male current smokers, by level of cigarette consumption—standardized absolute mortality rates per 100,000[a]

Cigarettes Per Day	Age			
	35-49	50-64	65-79	All Ages
Lung Cancer				
1-9	7.70	46.81	168.61	59.04
10-19	11.67	103.45	367.79	122.33
20	26.46	160.73	535.38	185.63
21-39	28.29	218.18	785.54	268.71
40+	39.71	274.33	888.75	315.26
Combined	25.16	170.95	503.51	175.87
Coronary Heart Disease				
1-9	101.78	544.37	1,852.05	770.47
10-19	142.38	682.76	2,087.90	893.66
20	167.73	764.25	2,184.38	968.59
21-39	170.50	758.91	2,209.83	962.02
40+	239.46	902.64	2,396.22	1,127.88
Combined	169.94	753.17	2,137.95	939.17
Cerebrovascular Disease				
1-9	13.76	77.24	563.07	248.03
10-19	22.63	75.41	572.95	268.30
20	18.98	93.15	563.70	250.89
21-39	24.71	105.89	581.79	255.82
40+	21.19	128.08	646.63	284.09
Combined	20.86	97.15	576.45	263.86
Chronic Obstructive Pulmonary Disease				
1-9		30.51	182.11	72.24
10-19	4.33	25.87	239.55	79.79
20	0.79	48.71	318.75	112.30
21-39	1.40	49.89	384.47	116.31
40+		66.29	466.72	149.06
Combined	1.32	45.90	295.70	100.71
All-Cause Mortality				
1-9	281.91	1,190.41	4,702.79	1,971.17
10-19	341.35	1,445.34	5,387.83	2,319.19
20	417.24	1,697.89	5,849.46	2,499.91
21-39	429.12	1,823.46	6,511.74	2,710.34
40+	586.29	2,195.01	6,910.57	2,966.77
Combined	422.43	1,715.30	5,756.71	2,465.47

[a] *Rates adjusted within 15-year group by 5-year age-specific rates to 1980 U.S. standard population. All-ages rate adjusted by 5-year age-specific rates to 1980 U.S. standard population older than 30 years of age.*

Table 6

Mortality rates among white female current smokers, by level of cigarette consumption—standardized absolute mortality rates per 100,000[a]

Cigarettes Per Day	Age			
	35-49	50-64	65-79	All Ages
Lung Cancer				
1-9	1.79	11.15	27.46	8.81
10-19	3.71	26.72	71.26	26.07
20	14.36	49.57	132.39	49.07
21-39	28.13	89.17	281.21	164.49
40+	20.86	119.01	208.39	79.37
Combined	9.90	37.92	84.76	33.61
Coronary Heart Disease				
1-9	15.36	106.14	741.69	331.19
10-19	22.58	174.20	1,075.58	457.27
20	24.26	206.90	1,060.19	450.07
21-39	42.26	220.24	1,301.99	561.03
40+	35.25	272.41	790.83	438.95
Combined	24.05	173.61	958.01	411.82
Cerebrovascular Disease				
1-9	9.67	44.21	320.71	153.70
10-19	15.48	76.58	362.93	185.36
20	18.74	76.30	430.75	191.77
21-39	19.44	70.22	542.96	200.22
40+	20.86	120.03	579.24	146.39
Combined	15.75	69.02	375.14	176.39
Chronic Obstructive Pulmonary Disease				
1-9	0.89	3.89	15.61	7.23
10-19	1.00	8.34	64.75	19.57
20	1.60	17.43	102.95	25.72
21-39	1.02	15.24	154.11	58.60
40+	3.04	31.54	189.02	44.30
Combined	1.24	11.21	62.17	18.85
All-Cause Mortality				
1-9	150.17	556.24	2,278.22	1,073.12
10-19	195.82	743.52	2,773.20	1,283.95
20	237.70	843.56	3,148.53	1,403.89
21-39	275.14	965.07	3,739.58	1,730.44
40+	324.06	1,219.96	3,196.19	1,586.20
Combined	211.60	759.29	2,749.85	1,271.06

[a] *Rates adjusted within 15-year group by 5-year age-specific rates to 1980 U.S. standard population. All-ages rate*

Table 7

Mortality rates among black male current smokers, by level of cigarette consumption—standardized absolute mortality rates per 100,000[a]

Cigarettes Per Day	Age			
	35-49	50-64	65-79	All Ages
Lung Cancer				
1-9	42.17	174.87	324.78	123.70
10-19	14.63	140.36	317.61	103.30
20	37.82	230.00	612.15	190.25
21-39		90.81		26.79
40+		618.24		182.41
Combined	27.08	184.86	389.73	133.44
Coronary Heart Disease				
1-9	86.80	542.86	1,542.04	794.07
10-19	43.88	637.54	1,384.31	690.06
20	157.79	607.03	1,718.76	735.12
21-39	79.21	800.24	2,920.68	787.25
40+		372.28		109.84
Combined	91.36	601.71	1,515.39	740.87
Cerebrovascular Disease				
1-9	86.80	348.13	1,074.99	464.84
10-19		176.20	816.90	198.96
20	104.59	212.68	865.73	391.66
21-39		199.50		58.86
40+			1,616.46	290.82
Combined	53.49	236.85	918.86	353.53
Chronic Obstructive Pulmonary Disease				
1-9		39.40	41.02	65.91
10-19		29.34	317.61	65.80
20		72.36	345.87	83.57
21-39		140.10		41.33
40+		206.08		60.80
Combined		54.01	217.65	76.88
All-Cause Mortality				
1-9	606.06	2,363.62	5,366.52	2,672.09
10-19	490.44	1,908.51	6,418.90	2,566.44
20	876.34	2,100.09	6,476.93	2,486.80
21-39	1,031.23	2,273.09	4,315.21	1,781.42
40+		2,365.67	4,849.38	1,570.43
Combined	675.94	2,121.92	5,984.92	2,586.29

[a] *Rates adjusted within 15-year group by 5-year age-specific rates to 1980 U.S. standard population. All-ages rate adjusted by 5-year age-specific rates to 1980 U.S. standard population older than 30 years.*

Table 8
Mortality rate ratios for black male current smokers, by level of cigarette consumption—standardized rate ratios for black male current smokers compared with white male never-smokers[a]

Cigarettes Per Day	Age			
	35-49	50-64	65-79	All Ages
Lung Cancer				
1-9	15.72	14.86	8.78	7.83
10-19	5.45	11.93	8.59	6.54
20	14.10	19.54	16.55	12.05
21-39		7.72		1.70
40+		52.52		11.55
Combined	10.09	15.71	10.53	8.45
Coronary Heart Disease				
1-9	2.09	1.54	1.03	1.29
10-19	1.05	1.81	0.92	1.12
20+	3.79	1.72	1.14	1.20
21-39	1.90	2.27	1.94	1.28
40+		1.06		0.18
Combined	2.20	1.71	1.01	1.21
Cerebrovascular Disease				
1-9	15.49	7.55	2.42	2.18
10-19		3.82	1.84	0.93
20	18.66	4.61	1.95	1.84
21-39		4.33		0.28
40+			3.64	1.37
Combined	9.54	5.14	2.07	1.66
Chronic Obstructive Pulmonary Disease				
1-9		9.54	1.79	7.17
10-19		7.10	13.83	7.15
20		17.52	15.06	9.09
21-39		33.92		4.49
40+		49.89		6.61
Combined		13.08	9.48	8.36
All-Cause Mortality				
1-9	3.32	3.01	1.55	1.73
10-19	2.68	2.43	1.85	1.66
20	4.80	2.68	1.87	1.61
21-39	5.64	2.90	1.25	1.15
40+		3.02	1.40	1.02
Combined	3.70	2.70	1.73	1.67

[a] *Rates adjusted within 15-year group by 5-year age-specific rates to 1980 U.S. standard population. All-ages rate adjusted by 5-year age-specific rates to 1980 U.S. standard population older than 30 years of age.*

Table 9

Mortality rates among black female current smokers, by level of cigarette consumption—standardized absolute mortality rates per 100,000[a]

Cigarettes Per Day	Age			
	35-49	50-64	65-79	All Ages
Lung Cancer				
1-9		15.19	39.16	11.53
10-19	12.89	92.65	86.36	47.05
20				
21-39				
40+		668.43		197.22
Combined	3.80	42.33	45.56	21.92
Coronary Heart Disease				
1-9	55.13	264.00	938.90	460.68
10-19	55.72	319.15	663.17	231.54
20	28.31	271.87	330.63	148.87
21-39		751.63		221.76
40+		1,336.87		394.43
Combined	49.51	301.68	781.49	391.50
Cerebrovascular Disease				
1-9	19.11	160.91	516.85	177.06
10-19	61.04	159.70	153.94	196.92
20	28.31		473.79	94.42
21-39	775.80			251.58
40+				
Combined	46.80	129.35	429.88	170.34
Chronic Obstructive Pulmonary Disease				
1-9		15.19		4.48
10-19				
20				
21-39				
40+				
Combined		8.22		2.43
All-Cause Mortality				
1-9	319.48	1,004.55	3,438.59	1,576.38
10-19	393.11	1,380.88	1,671.75	937.97
20	421.01	822.07	3,842.67	1,070.41
21-39	775.80	1,343.00		647.82
40+		2,005.30		591.65
Combined	364.45	1,098.49	3,076.47	1,419.34

[a] Rates adjusted within 15-year group by 5-year age-specific rates to 1980 U.S. standard population. All-ages rate adjusted by 5-year age-specific rates to 1980 U.S. standard population older than 30 years of age.

Table 10

Mortality rate ratios for black female current smokers, by level of cigarette consumption—standardized rate ratios for black female current smokers compared with white female never-smokers[a]

Cigarettes Per Day	Age			
	35-49	50-64	65-79	All Ages
Lung Cancer				
1-9		1.79	1.68	1.20
10-19	7.86	10.89	3.71	4.89
20				
21-39				
40+		78.55		20.48
Combined	2.32	4.97	1.96	2.28
Coronary Heart Disease				
1-9	7.15	3.20	1.37	1.49
10-19	7.22	3.87	0.96	0.75
20	3.67	3.30	0.48	0.48
21-39		9.12		0.72
40+		16.23		1.27
Combined	6.42	3.66	1.14	1.26
Cerebrovascular Disease				
1-9	3.15	5.14	1.73	1.07
10-19	10.07	5.10	0.52	1.19
20	4.67		1.59	0.57
21-39	127.92			1.52
40+				
Combined	7.72	4.13	1.44	1.03
Chronic Obstructive Pulmonary Disease				
1-9		10.50		1.17
10-19				
20				
21-39				
40+				
Combined		5.68		0.63
All-Cause Mortality				
1-9	2.12	2.08	1.64	1.50
10-19	2.61	2.86	0.80	0.89
20	2.79	1.70	1.84	1.02
21-39	5.15	2.78		0.62
40+		4.15		0.56
Combined	2.42	2.27	1.47	1.35

[a] Rates adjusted within 15-year group by 5-year age-specific rates to 1980 U.S. standard population. All-ages rate adjusted by 5-year age-specific rates to 1980 U.S. standard population older than 30 years of age.

for each age interval as well as the fitted values for each type of regression, all weighted to the square root of PMO's, for white males and females for lung cancer, CHD, CVD, COPD, and all-cause mortality.

Number of deaths and PMO's were tabulated for current smokers, with breakdowns along dimensions of age of initiation of smoking, duration of smoking, number of cigarettes smoked per day, and attained age. The difference between age of initiation and current monthly age was used to calculate duration of smoking for current smokers.

RESULTS

Changes in the Risk of Smoking With Age

All-cause mortality risk due to smoking changes with the age of the smoker. A long time lag exists between beginning smoking and onset of an increase in risk, and the biologic changes induced by smoking over time are cumulative in their effect on mortality. Smoking-related increased risk is commonly expressed as a ratio of the mortality rate in smokers compared with that of never-smokers (rate ratio), and a single summary rate ratio for smoking often is presented derived across all categories of smokers. However, the mortality rate in never-smokers changes with age, and the difference in mortality rates between smokers and never-smokers also changes with age. As a result, rate ratios for smoking are not constant across all age groups. The absolute magnitude of the excess mortality rate among smokers required to produce a rate ratio of two is much larger at age 80 than it is at age 40. Understanding changes in smoking risk with age requires an appreciation of both change in rate ratio with age and change in excess mortality rates with age.
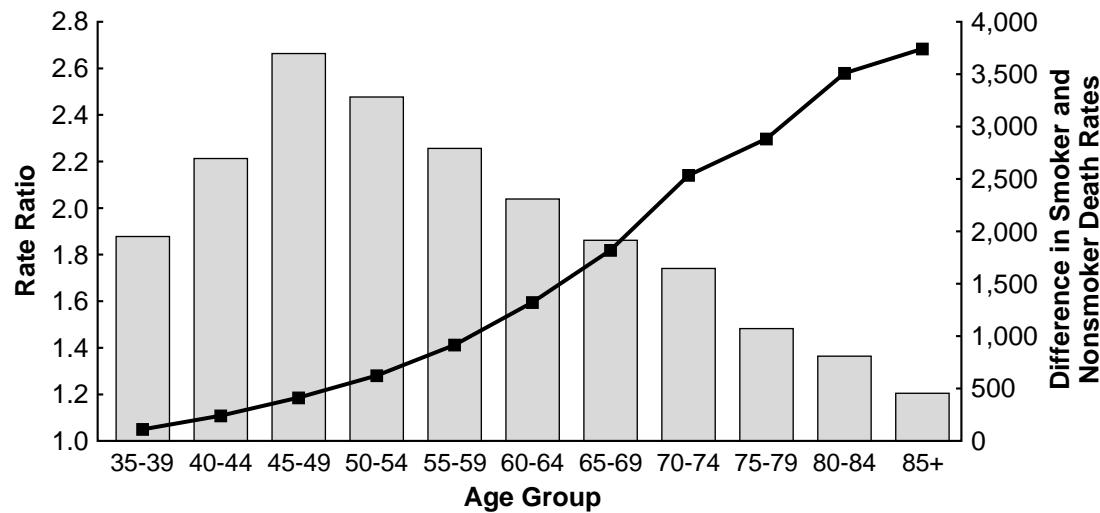
Figure 1 presents age-specific rate ratios for all-cause mortality for white male cigarette smokers in contrast to the absolute difference in mortality rates between smokers and never-smokers of the same ages. Rate ratios for all-cause mortality peak at 2.66 among the 45- to 49-year-old age group and then decline steadily with further increases in age. Differences between smoker and never-smoker mortality rates increase steadily with age and are greatest for that age group with the lowest rate ratio (age 85 and older). The inference that might be drawn from the rate ratio data alone that the impact of smoking on mortality declines at older ages would be incorrect, or at least incomplete. The impact of smoking on absolute, as opposed to relative, mortality continues to grow with age.

A similar effect is noted when rate ratios and excess mortality rates for white males are presented for four major causes of death linked to cigarette smoking (Figures 2 and 3). Rate ratios for lung cancer and COPD are much higher than those for CHD and CVD because of the multiplicity of other etiologic factors for vascular disease, in contrast to the relative specificity of cigarette smoking as a cause of lung cancer and COPD. There is a decline in rate ratio for all these causes of death among older age groups.

The age at which an increased rate ratio is first manifest is not the same for each cause of death. The rate ratio for CHD increases by the mid- to late-30-year-old age group, peaks with the 40- to 44-year-old age group, and then
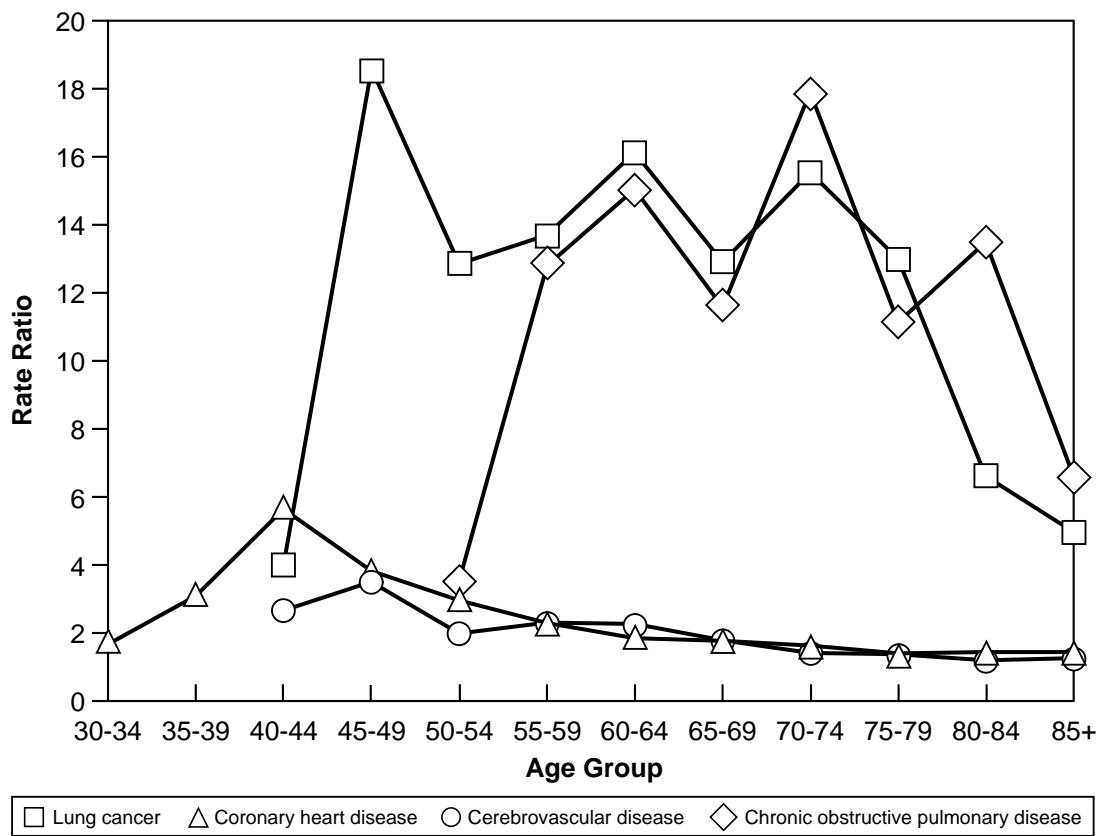
Figure 1
White male age-specific all-cause rate ratio and excess mortality between smokers and never-smokers

declines. An increased risk for lung cancer is first evident in the mid- to late-40-year-old age group, and an increased rate ratio for death from COPD is not evident until the late 50-year-old age group. This pattern is more evident when the differences between smoker and never-smoker mortality rates are examined (Figure 3). The impact of smoking on excess mortality prior to age 60 is largely manifest through its effect on deaths from CHD. Between ages 60 to 70 years, excess lung cancer mortality first increases rapidly, followed by a rapid increase in excess COPD mortality during the next decade of life. After age 80, each of these disease processes make an equivalent contribution to excess mortality. Thus, excess cause-specific mortality and all-cause mortality increase with age, but the fraction of excess all-cause mortality attributable to CHD is greater at younger ages.

Tables 11 through 14 present 5-year age-specific smoking risks by level of cigarette consumption per day for white males and females. Risks are presented as rate ratios (Tables 11 and 13) and as excess mortality rates, and the difference in mortality rates is presented between smokers and never-smokers (Tables 12 and 14). Risks are presented for each of four causes of death and for all-cause mortality. Never-smoker rates used in these tables are observed age-specific rates. Tables 5 to 7 and 9 present age- and cause-specific death rates for smokers of specified numbers of cigarettes per day. Fifteen-year age groups are presented for whites and blacks of both genders to allow comparison across race and gender of actual death rates for smokers in each stratum of age and number of cigarettes smoked per day. Rates were adjusted within 15-year age groups by 5-year age-specific rates to the U.S. 1980 standard population, but no attempt was made to adjust for differences in duration of smoking across strata or within strata for the different race and

Figure 2
White male cause-specific rate ratios for smoking by age
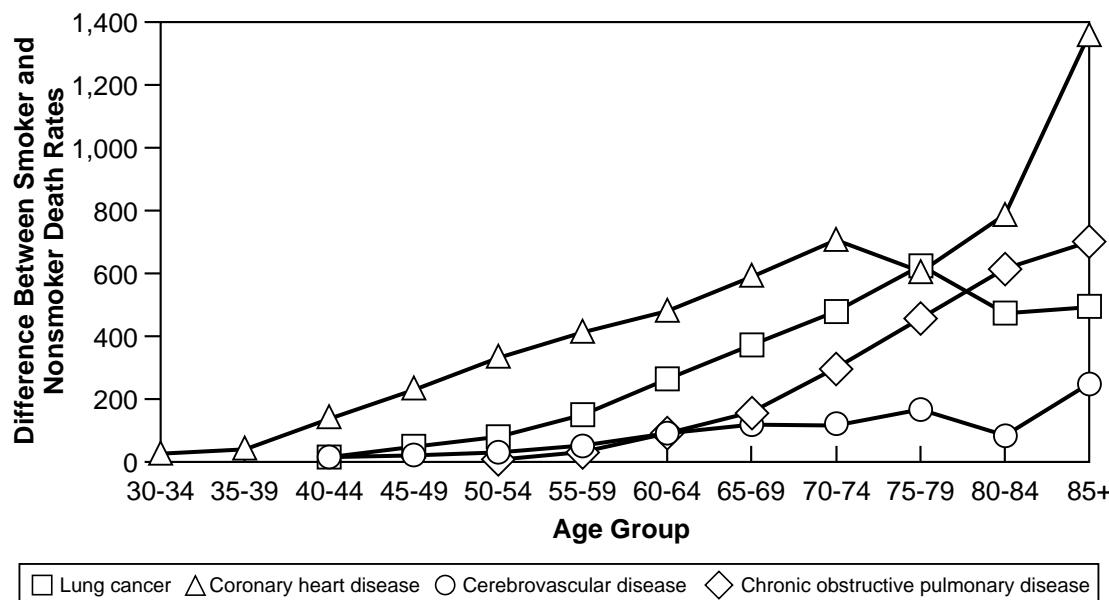
gender groups. Fifteen-year age groups were used because of the small number of deaths occurring among blacks for some of the causes of death.

In general, the small numbers of deaths among black never-smokers for many of the causes of death preclude generation of black-specific rate ratios. For example, there were only two lung cancer deaths among black male never-smokers. However, Tables 8 and 10 present rate ratios for black males and females by cause of death and all-cause mortality using the death rates among black smokers compared with the death rates among white never-smokers. These rate ratios allow rough comparison of the rate ratios for blacks by number of cigarettes smoked per day but should be interpreted with caution because of the small number of deaths among black smokers and the likely confounding of age and duration of smoking in these cross-race comparisons.

White Males–   Rate ratios for all-cause mortality among white males increase
Tables 5, 11, and 12   with increasing number of cigarettes smoked per day and are
        higher at younger ages (45 to 54). Death rates for never-smokers are also

Figure 3
White male cause-specific excess mortality for smoking by age

lower at younger ages, particularly for those diseases for which smoking causes most of the disease occurrence (lung cancer and COPD). A low death rate among never-smokers can produce a large rate ratio for smokers even if the actual death rates among smokers are modest. This effect is manifest among white males by high rate ratios for lung cancer and COPD at younger ages despite low excess death rates for these diseases. In contrast, the largest contribution to excess mortality among smokers at younger ages results from CHD even though the rate ratios for CHD are much lower than those for lung cancer. This seeming discordance between rate ratios and excess mortality is the result of the relatively high death rates from CHD among never-smokers, and these higher CHD death rates in never-smokers occur because several factors other than smoking (e.g., hypertension, elevated cholesterol) make substantial causal contributions to CHD death rates.

Rate ratios for all-cause mortality and for disease-specific mortality decline among white males at older ages; however, the excess mortality rates among smokers for lung cancer, CHD, and COPD become similar in magnitude as age increases (Table 12).

Increased rate ratios for CVD are evident at younger ages, but there is an inconsistent dose-response relationship, possibly caused by low rates of death from this cause at these ages. Rate ratios approach 1 among the older age groups, and there is no clear dose-response relationship with the summary rate ratios standardized to the U.S. 1980 population. Excess mortality rates among smokers for CVD rise only modestly with age.

Table 11
Age-specific rate ratios for white male current smokers, by level of cigarette consumption

Cigarettes Per Day	Age											
	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	US80[a]
Lung Cancer												
1-9			9.75	3.85	3.19	4.65	3.58	4.80	5.41	1.49	3.54	3.74
10-19		2.45	8.90	6.00	8.00	10.69	7.94	11.85	10.41	3.75	5.27	7.75
20		3.82	21.40	11.58	13.02	15.11	12.96	16.16	14.60	9.41	4.81	11.76
21-39		5.18	18.85	18.91	15.88	20.44	18.54	25.90	19.97	14.72	8.21	17.02
40+		7.10	23.82	16.88	23.18	26.35	21.41	23.22	27.62	16.76	9.44	19.97
Combined		4.15	18.43	12.77	13.60	16.05	12.82	15.41	12.84	6.47	4.79	11.14
Coronary Heart Disease												
1-9	2.07	3.20	2.27	1.68	1.70	1.41	1.35	1.16	1.21	1.01	1.16	1.25
10-19	3.09	3.43	3.51	2.40	2.16	1.65	1.57	1.45	1.21	1.25	1.11	1.45
20	3.20	5.63	3.67	3.07	2.27	1.82	1.64	1.52	1.27	1.29	1.36	1.58
21-39	2.46	5.92	3.88	3.12	2.17	1.83	1.65	1.62	1.21	1.31	1.15	1.57
40+	5.12	9.66	4.45	3.57	2.75	2.12	1.78	1.61	1.45	1.53	1.51	1.84
Combined	3.15	5.73	3.73	2.97	2.26	1.79	1.61	1.47	1.25	1.22	1.21	1.53
Cerebrovascular Disease												
1-9		2.13	2.78	1.56	1.62	1.75	1.35	1.03	1.40	0.93	1.07	1.16
10-19		2.45	3.63	1.13	1.75	1.76	1.58	1.34	1.15	1.01	1.25	1.26
20		2.54	3.41	1.68	2.19	2.06	1.73	1.26	1.11	1.12	0.90	1.18
21-39		3.46	4.09	2.36	2.25	2.30	1.72	1.39	1.11	0.82	1.04	1.20
40+		1.89	3.02	2.62	3.22	2.60	1.77	1.43	1.36	1.60	0.68	1.33
Combined		2.64	3.51	1.92	2.24	2.10	1.66	1.28	1.18	1.05	1.07	1.24

Table 11 (continued)

Cigarettes Per Day	Age											
	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	US80[a]
Chronic Obstructive Pulmonary Disease												
1-9					11.48	9.93	7.03	14.20	5.00	11.01	6.37	7.85
10-19				2.61	5.41	8.87	9.16	11.85	10.39	14.01	3.76	8.67
20				3.79	13.69	15.74	10.58	19.33	12.80	15.39	8.02	12.21
21-39				3.23	10.30	18.25	16.47	22.94	13.49	8.50	8.21	12.64
40+				5.53	23.78	18.78	14.68	24.98	21.05	16.60	9.44	16.21
Combined				3.47	12.81	14.93	11.53	17.70	11.01	13.36	6.38	10.95
All-Cause Mortality												
1-9	0.65	1.73	1.93	1.50	1.61	1.46	1.35	1.36	1.36	1.20	1.07	1.27
10-19	1.83	1.36	2.28	1.94	1.96	1.73	1.70	1.61	1.42	1.31	1.29	1.50
20	1.82	2.17	2.65	2.43	2.21	2.03	1.84	1.79	1.51	1.48	1.22	1.62
21-39	1.79	2.40	2.65	2.70	2.27	2.22	2.07	2.01	1.65	1.42	1.35	1.75
40+	2.91	3.20	3.39	3.18	2.94	2.55	2.25	2.01	1.82	1.65	1.28	1.92
Combined	1.87	2.21	2.66	2.47	2.25	2.03	1.85	1.73	1.48	1.36	1.20	1.59

[a] Standardized to U.S. 1980 population by 5-year strata greater than 30 years of age.

Table 12
Age-specific excess mortality (rate difference) for white male current smokers, by level of cigarette consumption

Cigarettes Per Day	Age											
	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	US80[a]
Lung Cancer												
1-9			22.89	19.56	25.89	63.54	81.17	127.00	230.57	42.50	328.97	43.25
10-19		8.64	20.68	34.34	82.72	168.57	217.87	362.75	492.37	236.74	552.56	106.54
20		16.77	53.39	72.61	142.09	245.51	375.74	506.74	711.21	723.54	493.63	169.84
21-39		24.91	46.72	123.01	175.87	338.39	550.86	832.15	922.17	1,179.83	933.83	252.92
40+		36.34	59.71	109.02	262.19	441.22	641.10	742.55	1,392.55	1,355.08	1,093.71	299.47
Combined		18.74	45.62	80.84	148.98	261.88	371.41	481.62	619.34	470.08	490.76	160.08
Coronary Heart Disease												
1-9	20.36	65.55	104.60	114.39	227.41	242.52	333.75	248.57	525.22	27.22	1022.42	156.14
10-19	40.02	72.39	207.11	233.74	376.52	390.65	546.88	688.21	513.71	908.26	713.66	279.33
20	41.99	137.82	219.72	347.63	410.68	489.03	614.33	785.94	661.58	1,037.30	2,331.05	354.26
21-39	27.98	146.61	237.29	355.29	380.78	496.87	626.62	949.34	515.53	1,112.00	946.45	347.68
40+	78.81	257.81	284.62	430.87	566.40	671.50	749.11	928.92	1,112.27	1,923.57	3,288.87	513.55
Combined	41.03	140.85	225.05	329.64	408.95	475.19	590.15	714.66	609.62	790.90	1,359.97	324.84
Cerebrovascular Disease												
1-9		10.13	16.34	14.24	23.56	59.54	63.30	13.45	369.67	-128.81	258.63	34.98
10-19		12.96	24.12	3.26	28.76	60.26	106.43	149.35	139.92	13.05	889.52	55.25
20		13.79	22.10	17.22	45.25	83.80	132.40	113.89	103.32	213.03	-373.15	37.84
21-39		21.93	28.34	34.54	47.79	102.98	131.64	173.37	97.25	-322.44	128.94	42.77
40+		7.98	18.54	41.08	84.56	126.54	140.89	192.51	328.73	1,082.91	-1,146.30	71.04
Combined		14.64	23.00	23.29	47.44	87.47	119.78	123.71	166.72	82.28	247.09	50.81

Table 12 (continued)

Cigarettes Per Day	Age											
	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	US80[a]
Chronic Obstructive Pulmonary Disease												
1-9					28.17	58.93	87.79	234.34	183.23	496.49	695.78	63.04
10-19				5.52	11.86	51.95	118.72	192.71	429.74	645.51	357.68	70.59
20				9.57	34.11	97.28	139.46	325.50	540.03	713.66	909.07	103.10
21-39				7.67	24.97	113.91	225.20	389.57	571.42	372.33	933.83	107.12
40+				15.56	61.19	117.35	199.19	425.66	917.47	773.86	1,093.71	139.86
Combined				8.46	31.74	91.99	153.29	296.42	457.97	613.11	697.52	91.51
All-Cause Mortality												
1-9	-42.08	136.52	237.92	214.68	442.25	585.96	749.00	1,243.74	2,138.83	1,933.24	1,207.60	424.68
10-19	100.69	67.82	327.25	400.96	702.45	914.51	1,488.61	2,111.39	2,464.95	3,029.94	5,342.23	772.70
20	98.95	218.62	422.08	611.99	885.56	1,295.23	1,792.11	2,710.24	3,021.68	4,616.55	3,980.88	953.42
21-39	95.58	262.19	419.81	728.21	924.43	1,531.48	2,289.19	3,485.47	3,826.43	4,081.91	6,315.92	1,163.85
40+	231.47	412.95	610.53	935.53	1,416.44	1,954.96	2,658.94	3,475.43	4,858.38	6,220.61	5,100.26	1,420.28
Combined	105.09	226.63	423.11	630.09	911.25	1,302.30	1,809.07	2,515.85	2,872.05	3,493.70	3,716.60	918.98

[a] Standardized to U.S. 1980 population by 5-year strata greater than 30 years of age.

Table 13
Age-specific rate ratios for white female current smokers, by level of cigarette consumption

Cigarettes Per Day	Age											
	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	US80[a]
Lung Cancer												
1-9		1.69	0.81	1.06	1.56	1.27	1.68	0.88	1.01			0.91
10-19		2.62	2.10	3.49	2.56	3.32	3.19	3.36	2.72	3.38		2.71
20		8.48	8.89	7.71	6.41	4.74	8.34	6.33	3.06	1.25	3.79	5.10
21-39		18.20	11.87	12.80	9.54	10.06	11.86	9.31	14.41		67.21	17.08
40+		10.78	13.64	15.07	24.17	7.89	5.48	15.37	6.75			8.24
Combined		6.28	5.39	5.53	4.80	3.83	4.80	3.80	2.59	1.27	2.05	3.49
Coronary Heart Disease												
1-9	9.20	0.68	1.89	1.59	1.41	1.17	1.06	1.07	1.09	1.18	0.91	1.07
10-19	7.37	2.36	2.72	2.63	2.43	1.85	1.77	1.55	1.47	1.33	1.22	1.48
20		3.63	3.24	3.81	2.96	2.02	1.86	1.78	1.21	1.19	1.20	1.45
21-39	19.48	5.82	3.59	4.16	2.91	2.25	1.79	1.91	1.93	1.54	1.57	1.81
40+		6.47	4.02	4.34	3.87	2.82	1.86	1.18	0.78	0.57	1.71	1.42
Combined	6.53	2.90	2.83	2.96	2.43	1.77	1.58	1.45	1.26	1.23	1.06	1.33
Cerebrovascular Disease												
1-9	2.30	1.69	1.26	1.49	1.45	1.36	0.98	1.30	0.98	0.89	0.69	0.93
10-19	5.53	1.31	2.33	2.58	2.41	2.42	1.63	1.09	1.15	1.05	0.87	1.12
20	3.42	2.73	3.23	2.91	2.44	2.25	1.86	1.40	1.32	1.03	0.77	1.16
21-39	4.87	0.91	4.26	3.14	2.11	1.97	1.29	1.19	2.39	0.73	0.62	1.21
40+		2.69	5.30	4.23	4.30	3.43	1.96	1.17	2.40			0.88
Combined	3.81	1.86	2.67	2.54	2.21	2.07	1.48	1.25	1.18	0.95	0.75	1.06

Table 13 (continued)

Cigarettes Per Day	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	US80[a]
					Chronic Obstructive Pulmonary Disease							
1-9					2.54	4.65	1.68	2.79	1.30		3.62	1.89
10-19			6.29	3.40	6.65	6.74	6.16	4.58	11.34	2.01	3.70	5.11
20			6.02	4.05	10.95	18.38	14.12	11.44	12.35	1.49		6.72
21-39			6.39	4.57	7.42	16.97	5.45	23.55	22.17	25.11		15.31
40+			19.09		13.16	43.24	6.73	19.44	34.61			11.57
Combined			5.20	2.80	7.23	11.54	7.00	7.01	8.23	1.51	2.90	4.93
					All-Cause Mortality							
1-9	0.79	1.01	1.11	1.13	1.20	1.13	1.04	1.10	1.11	1.07	0.86	1.02
10-19	1.47	1.03	1.40	1.40	1.64	1.54	1.41	1.29	1.30	1.16	0.96	1.22
20	1.17	1.73	1.71	1.75	1.84	1.67	1.74	1.63	1.27	1.25	0.96	1.34
21-39	1.67	1.85	1.90	1.93	1.96	2.06	1.56	1.74	1.96	1.25	1.48	1.65
40+	0.83	2.51	2.67	2.29	2.78	2.47	1.68	1.62	1.37	1.15	1.17	1.51
Combined	1.21	1.39	1.53	1.53	1.66	1.53	1.40	1.34	1.24	1.14	0.92	1.21

[a] Standardized to U.S. 1980 population by 5-year strata greater than 30 years of age.

Table 14
Age-specific excess mortality (rate difference) for white female current smokers, by level of cigarette consumption

Cigarettes Per Day	Age											
	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	US80[a]
Lung Cancer												
1-9		1.14	-0.71	0.32	3.85	3.94	11.34	-2.48	0.52			-0.82
10-19		2.68	4.04	12.46	10.86	33.36	36.81	49.65	66.11	113.10		16.44
20		12.40	29.09	33.59	37.52	53.81	123.18	112.01	79.26	11.88	164.77	39.44
21-39		28.52	40.05	59.07	59.25	130.38	182.15	174.66	514.86		3,907.92	154.86
40+		16.22	46.58	70.43	160.76	99.14	75.20	302.05	220.68			69.74
Combined		8.75	16.18	22.66	26.39	40.72	63.81	58.90	60.92	12.80	61.94	23.97
Coronary Heart Disease												
1-9	11.80	-2.69	13.28	17.32	27.69	26.69	21.27	50.53	119.09	421.16	-435.41	21.51
10-19	9.17	11.25	25.85	48.25	96.27	137.26	265.62	378.22	625.83	762.21	1,130.82	147.60
20		21.84	33.62	83.11	131.50	164.55	299.76	534.54	276.20	444.43	998.12	140.39
21-39	26.61	39.99	38.82	93.28	128.16	200.77	274.82	622.77	1,224.47	1,226.77	2,889.48	251.36
40+		45.34	45.31	98.71	192.69	292.97	297.02	125.97	-284.21	-975.03	3,588.69	129.28
Combined	7.96	15.78	27.46	58.00	95.86	124.47	200.49	308.87	343.81	534.95	318.32	102.14
Cerebrovascular Disease												
1-9	3.74	4.56	2.43	8.77	11.34	19.54	-2.21	81.72	-15.71	-154.32	-1,001.90	-12.24
10-19	13.03	2.05	12.61	28.18	35.66	76.21	79.24	23.83	96.61	66.24	-414.21	19.41
20	6.96	11.45	21.18	34.14	36.55	67.33	107.42	111.29	209.21	47.15	-731.29	25.82
21-39	11.15	-0.60	30.90	38.21	28.24	52.03	36.72	51.00	901.14	-374.91	-1,209.50	34.28
40+		11.24	40.79	57.58	83.66	130.72	120.36	47.94	906.45			-19.55
Combined	8.09	5.73	15.86	27.42	30.74	57.70	60.19	69.50	118.65	-63.65	-814.11	10.45

Table 14 (continued)

Cigarettes Per Day	Age											
	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	US80[a]
					Chronic Obstructive Pulmonary Disease							
1-9					1.96	7.19	3.11	14.86	4.48		109.37	3.41
10-19			2.79	2.80	7.20	11.29	23.51	29.74	154.84	40.31	112.63	15.74
20			2.64	3.56	12.67	34.22	59.82	86.71	169.91	19.43		21.90
21-39			2.84	4.17	8.18	31.44	20.31	187.36	316.98	964.99		54.77
40+			9.53		15.50	83.18	26.10	153.22	503.16			40.47
Combined			2.21	2.10	7.94	20.75	27.36	49.96	108.16	20.35	79.21	15.02
					All-Cause Mortality							
1-9	-21.35	1.34	23.91	41.64	87.38	92.58	44.13	214.02	404.33	490.61	-2,026.40	22.59
10-19	47.72	4.36	84.93	129.08	280.45	389.08	496.21	587.89	1,149.69	1,116.98	-517.04	233.43
20	17.30	109.32	151.47	244.61	369.14	484.22	890.65	1,295.42	1,018.92	1,725.55	-620.83	353.36
21-39	67.52	127.80	192.80	301.71	419.22	762.73	671.52	1,511.79	3,625.62	1,705.75	7,098.13	679.91
40+	-17.31	225.59	358.70	421.11	777.79	1,055.52	817.63	1,268.50	1,393.41	1,057.78	2,546.14	535.67
Combined	21.45	59.01	112.76	171.32	287.53	384.15	487.15	700.73	907.02	964.11	-1,172.10	220.54

[a] Standardized to U.S. 1980 population by 5-year strata greater than 30 years of age.

White Females–   All-cause and cause-specific mortality rate ratios are generally
Tables 6, 13, and 14   lower for white females than for white males. Excess mortality
                        rates among smokers also are lower for each cause of death among white
                        females compared to white males. The general pattern of dose-response
                        relationships and change in risk with age is similar for white males and
                        females once the difference in magnitude of risks is considered. Part of the
                        difference between white males and white females in relative and excess
                        mortality is attributable to differences in duration of smoking between males
                        and females of the same age, particularly among the older age groups. Males
                        began to smoke cigarettes in large numbers in the early part of this century,
                        whereas females initiated smoking during the late 1930's and 1940's (see
                        Chapter 2). Female smokers in CPS-I also smoked fewer cigarettes per day
                        than male smokers, contributing to their lower age-specific rate ratios.

Black Males–   Numbers of deaths and PMO's among black males were substantially
Tables 7 and 8   smaller than those among whites of both genders. There were only
                       two deaths from lung cancer and no deaths from COPD among black male
                       never-smokers. Among black male smokers there were 62 deaths from lung
                       cancer and 24 deaths from COPD. Mortality rates for black male smokers are
                       presented for age groups where deaths occurred (Table 7). To allow some
                       approximation of the risks occurring among black male smokers, white male
                       age-specific never-smoker death rates are compared with rates among black
                       male smokers to generate rate ratio estimates (Table 8).

        The patterns seen in lung cancer and CHD rate ratios with number of
        cigarettes per day and age-specific changes in rate ratio are similar for black
        and white males. The absence of deaths from COPD among black male never-
        smokers precludes estimation of the rate ratios, but when white male never-
        smoker rates are used, an overall COPD rate ratio of 8.39 is calculated for
        black males compared with 10.96 among white males.

        No smoking-related increased risk for CVD is evident among black male
        smokers, and the increased risk demonstrated when white male never-smoker
        rates are used probably reflects the higher rates of CVD among all black males.

Black Females–   Numbers of deaths and PMO's among black females were larger than
Tables 9 and 10   those available for black males but were still substantially smaller
                       than those for white males or females. Only modest increases in risks for
                       lung cancer and CHD are demonstrable among black female smokers, and
                       there does not appear to be an increased risk for CVD or all-cause mortality.
                       There were too few deaths from COPD among black female smokers and
                       never-smokers for meaningful estimation.

Changes in the Risk   Risks of smoking cigarettes have traditionally been expressed
of Smoking With   in relation to the age of the smoker, using age-specific
Duration of Smoking   rates for never-smokers as a comparison group. However,
                           individuals begin smoking at different ages, and a given age group of smokers
                           may contain individuals with markedly different durations of exposure.
                           Therefore, categorizing disease risks by duration of smoking, rather than age,
                           may be a more accurate method of examining this exposure. Tables 1 and 2

present rate ratio of cigarette smoking stratified by duration of smoking and number of cigarettes smoked per day. The comparison rate of never-smokers is a weighted average of never-smoker age-specific rates corresponding to those age groups of smokers each duration category. The age-specific rates of never-smokers are weighted by the PMO's in each age group of smokers within the duration category. Therefore, these rate ratios include any effect modification due to the differences in distribution by age of the population contained in the duration-specific strata.

Three variables define the temporal dimensions of smoking exposure: attained age, age of initiation, and duration of smoking. Once any two of these variables are specified for an individual smoker, the third is fixed, and attained age and duration of smoking become collinear variables. Because these variables are time based and because much smoking initiation occurs during a narrow period of adolescence and young adulthood, attained age for a population is an index of duration of exposure. Presentation of rate ratios in relation to the duration of cigarette use allows examination of risk with both principal determinants of smoking-related risk (duration and number of cigarettes smoked per day) stratified in the same table.
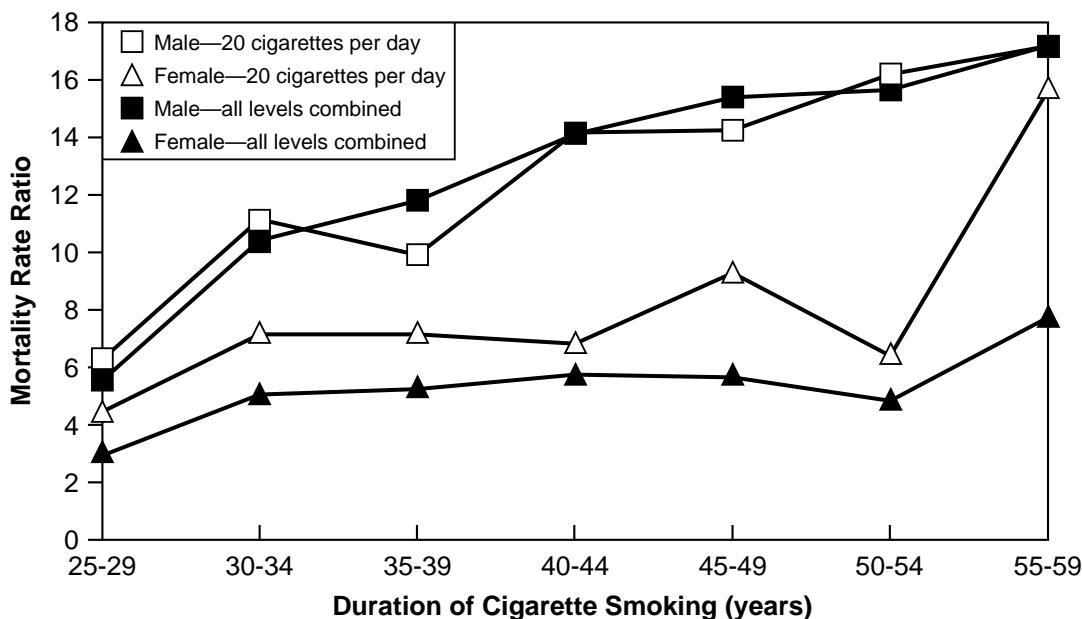
White Males–   In contrast to age-specific rate ratios for lung cancer and COPD,
Table 1   which increase, peak, and then decline with age, duration-specific
risks for these diseases increase steadily with increasing duration, excluding the 60+-years-of-duration category. The pattern for CHD is different, with rate ratios increasing to the 30- to 34-years-of-duration category and then declining. Cigarette smoking is the dominant etiologic factor for lung cancer and COPD in the population, and duration is a powerful determinant of that risk; however, CHD has a multifactorial etiology, and duration of exposure plays a less powerful role in determining risk. The pattern for CVD rate ratios is also an increase and then a decline, with the peak in rate ratios occurring at a somewhat longer duration than for CHD.

A second observation from these data is the lag time between initiation of smoking and the onset of an increased risk of the different diseases. Rate ratios for lung cancer and CHD are low, and there is no clear dose-response relationship with number of cigarettes smoked per day until the 20- to 24-years-of-duration category. The rate ratios for COPD begin to rise with the 35- to 39-years-of-duration category, and this is the first category with a consistent dose-response. A pattern for CVD is not clearly manifest but may be similar to that for CHD. The rate ratios for all-cause mortality first show a consistent dose-response with the 20- to 24-years-of-duration category.

White Females–   Table 2 presents rate ratios for female smokers stratified by the
Table 2   the major differences between males and females in smoking
behavior: duration of smoking and number of cigarettes smoked per day. Rate ratios for lung cancer and all-cause mortality among females are generally well below the rate ratios for males in the same strata. Figure 4 presents duration-specific lung cancer rate ratios for males and females who smoke 20 cigarettes per day and for all levels of consumption combined.

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Figure 4

**Rate ratio by duration of cigarette smoking for white males and females who smoked
20 cigarettes per day and for all levels of consumption**

The lung cancer risks for males are higher than those for females for all levels
of consumption combined and for a specific dose (20 cigarettes per day).
The rate ratios for 20 cigarettes per day are similar to the all-levels-combined
ratios for males, but the combined rate ratios are lower than the 20-cigarettes-
per-day level for females. This suggests that there are additional reductions
in female combined rate ratios produced by the relative distribution of
female smokers into those strata with lower numbers of cigarettes smoked per
day. Differences between male and female lung cancer risks are not entirely
explained by differences in duration and current number of cigarettes smoked
per day in this population. Differences in number of cigarettes smoked per
day in the past, in tar yield of the cigarettes smoked, in depth of inhalation,
or in other factors may explain these differences in lung cancer risks, as may
differences between males and females in the age distributions of the
individual strata.

When rate ratios for COPD are compared for males and females in the
same dose and duration strata, rate ratios are similar or slightly higher for
white females. Combined rate ratios are lower because of differences in
distribution of dose and duration among females, but rate ratios for specified
dose and duration categories are similar or elevated. There are a smaller
number of deaths from COPD among women, making the rate ratios
estimates somewhat unstable; there also may be a lower COPD death
rate among female never-smokers compared with male never-smokers.

Changes in the Risk of Smoking With Duration of Cessation   Rate ratios for all-cause and tobacco-related disease-specific mortality decline with cessation of cigarette smoking. Mortality risks within the first year of cessation are often reported to be higher than those for continuing smokers because many individuals quit following diagnosis of disease. For this reason, we have reported rate ratios beginning after the second year of cessation and have excluded those deaths and person-years of followup that occurred during the first 24 months of cessation.

White Males– Table 3   A steady decline in all-cause rate ratios occurs with continuing cessation; by 20 to 24 years of cessation, all-cause rate ratios have returned to one. Rate ratios for lung cancer also decline but seem to plateau once 20 years of cessation has been reached. Rate ratios remain elevated at approximately 1.5 to 2 times that of never-smokers even for long durations of smoking. Rate ratios for CHD decline more rapidly than those for lung cancer, but an increased risk appears to remain for 20 years following cessation. A similar pattern of rate ratio decline occurs with cessation for CVD.

Rate ratios for COPD decline steadily with cessation, but the risks for the first 9 years of cessation are higher than those of continuing smokers. This may be attributable to the high rate of cessation that occurs following the development of clinically significant lung disease. A substantial amount of lung injury must occur to result in symptoms from COPD. This injury is not reversed with cessation, and a substantial period usually occurs between onset of symptoms and death from respiratory failure. In many patients, COPD will progress and eventually cause death, even if the patients stop smoking. It is likely that these clinically symptomatic individuals who quit smoking elevate the COPD death rate among former smokers for several years following cessation. As with lung cancer, the rate ratios for COPD do not return to 1 and appear to remain elevated even after prolonged cessation.

White Females– Table 4   The number of former smokers among white females was much smaller than among males, particularly for former smokers of long duration. Clear declines in rate ratio were evident for CHD, CVD, and all-cause mortality, but the limited number of observations do not allow a clear conclusion to be drawn about rate ratios for lung cancer and COPD.

Changes in the Risk of Smoking With Age of Initiation   Early age of initiation may increase the risk of smoking-related disease in two ways. One, early age of initiation increases the duration of smoking at any given age, and two, duration is a powerful determinant of smoking-related risk. However, it also has been postulated that the dose-to-produce-an-effect relationship for carcinogenic transformation may be lower at younger ages, making early age of initiation a factor in defining risk independent of its contribution to duration of smoking (Moolgavkar et al., 1989). The hypothesis that early age of initiation may increase risk has been incorporated into some models of tobacco carcinogenesis (Moolgavkar et al., 1989). Appendix B presents data on age-specific, duration-specific, and number-of-cigarettes-per-day-specific mortality. These data can be used to examine the effect of early age of

initiation, independent of its contribution to duration, by comparing rates for groups with different ages of initiation but the same durations of smoking.

Attained age, age of initiation, and duration of smoking are three time-based variables determining smoking risk. If a constant duration category is defined, only one of the other terms (age of initiation or attained age) can be varied, because fixing age of initiation and duration specifies the attained age of the smoker. Tables in Appendix B and figures 5 and 6 in this chapter are presented by attained age rather than age of initiation because attained age was recorded in single years, whereas age of initiation was recorded as a categorical variable. However, attained age is linked to age of initiation in these tables and figures, and can be converted to age of initiation by subtracting the duration from attained age.

Age of Initiation and Rate Ratio of Lung Cancer   Figure 5 presents rate ratios for lung cancer for those cells in in Appendix B of constant durations. Risks are plotted against attained age, and regression lines are presented for points representing specific numbers of cigarettes smoked per day. Each graph within the figure is for a single duration-of-exposure category.
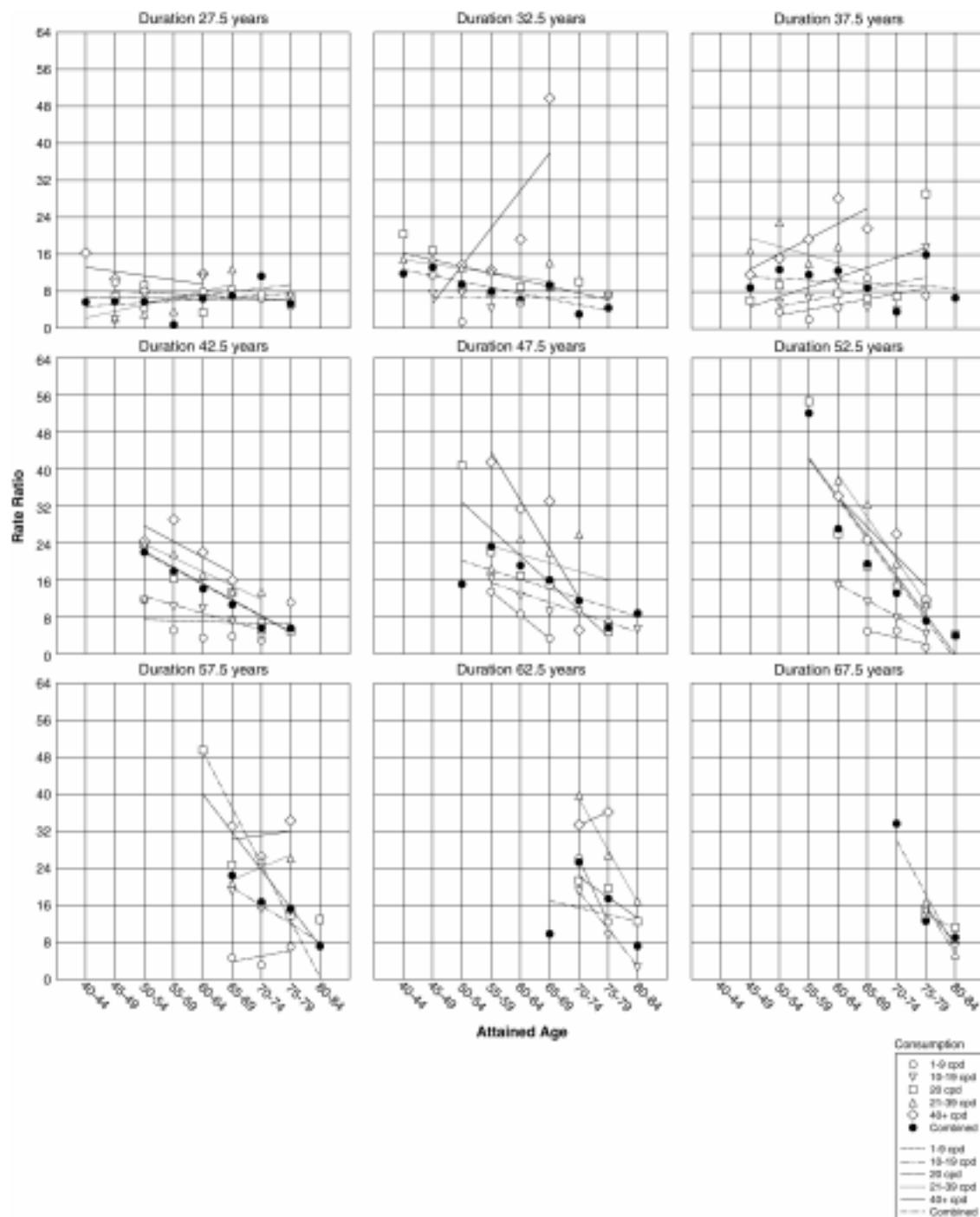
No clear pattern emerges in slopes of the regression lines of the rate ratios until the 40- to 44-years-of-duration category is reached, and then a clear negative slope with increasing attained age occurs for most of the regression lines. Interpretation of changes in rate ratios with attained age is complicated by the previously described decline in rate ratio with increasing age.

The authors postulated that an effect of age of initiation, independent of its effect on duration of exposure, also would be manifest as a decrease in excess mortality rates with increasing attained age among smokers with similar durations of smoking. Figure 6 presents the log of excess mortality rates for smokers of constant durations. Risks are plotted against attained age, and regression lines are presented for points representing specific numbers of cigarettes smoked per day. Each graph within the figure is for a single duration-of-exposure category. Slopes of the lines with increasing age within duration categories tend to be positive for the three shortest duration categories. However, the slopes of the lines for the five longest categories are not significantly greater than zero. An independent effect of age of initiation should result in higher excess mortality at the younger ages within constant duration categories. A constant duration line should then have a negative slope with increasing attained age because an older attained age for the same duration of smoking means that smoking must have been initiated later in life.

We conclude from these analyses that the major contribution of early age of initiation to increased risk of lung cancer is mediated through the longer duration of smoking at any given age that occurs with earlier age of initiation. An independent effect of age of initiation, if any exists, would be small.
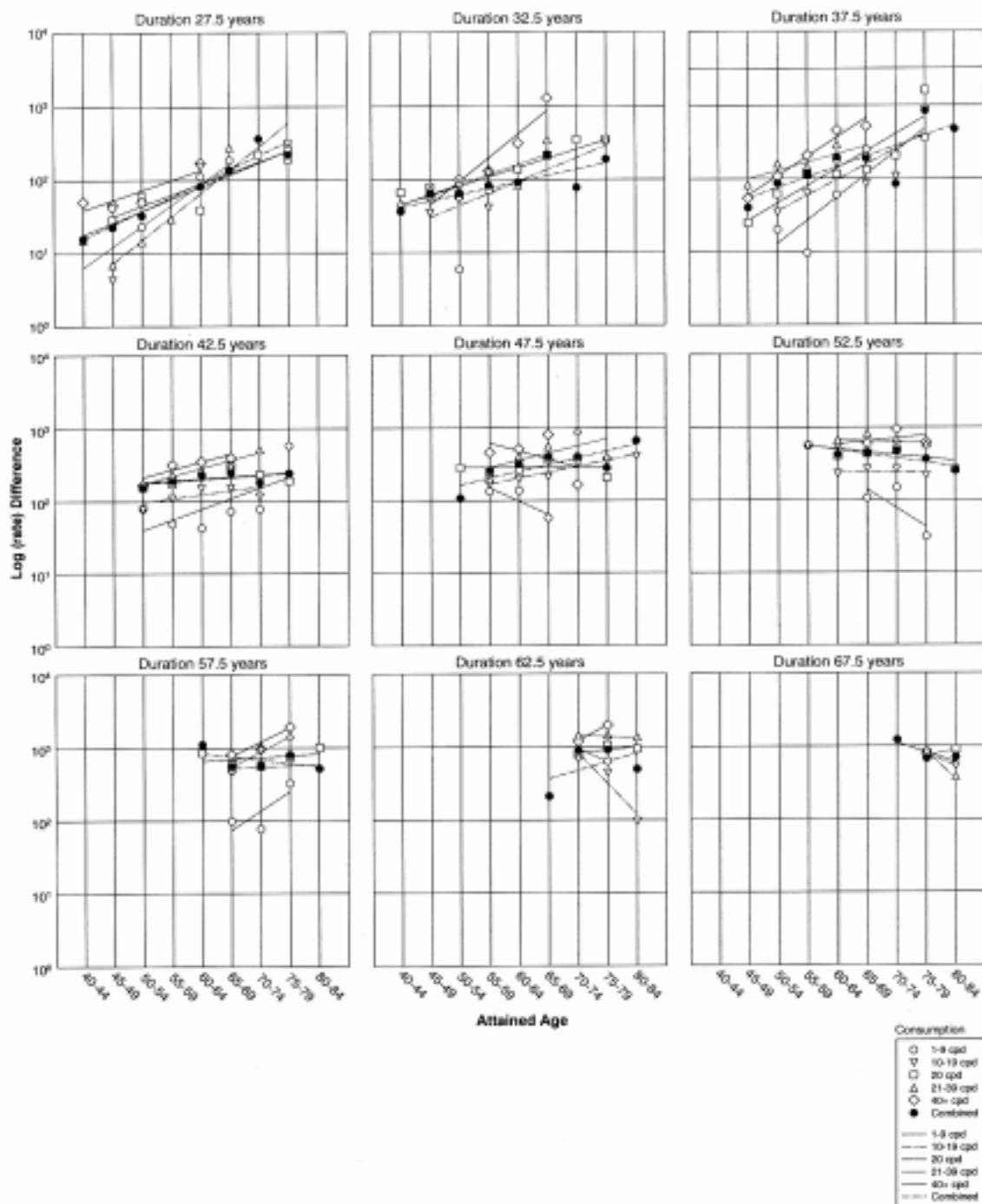
Figure 5
Rate ratios for lung cancer for white males for smoking by duration, level of consumption, and age

Key: cpd = cigarettes per day.

Figure 6
Excess mortality for white males for smoking by duration, level of consumption, and age

Key: cpd = cigarettes per day.

An increase in excess mortality rates for smokers with increasing attained age is observed for the three shortest duration-of-exposure categories. The age-specific rates for never-smokers already have been subtracted from the rate for smokers, so any independent additive effect of age should already have been removed from the values in the graphs. This positive slope with attained age might represent an interaction of age and smoking such that smoking at an older age carries with it an increased risk in comparison to the same intensity of smoking at a younger age. If this interaction is present, a positive slope could be expected among the longer duration-of-exposure categories, and there is none. It is possible that an interaction with age might be small or might have a maximum effect that is reached at shorter durations. The interaction then might be overwhelmed by the larger effect of duration of exposure at longer durations.

An additional likely possibility is that individuals with short durations of smoking and older attained ages (i.e., who began smoking later in life) may have begun smoking cigarettes after having smoked pipes or cigars for several years. This would result in these smokers, when reporting their duration of smoking cigarettes, underestimating their total duration of exposure to tobacco smoke and overestimating the risk of smoking for a given duration. Many males switched from smoking pipes and cigars to smoking cigarettes in the early part of this century (see Chapter 2), and the older age groups of smokers in the CPS-I population are likely to contain many individuals who switched to cigarettes earlier in life.

APPENDIXES   *Appendix A* is a set of risk ratio tables for age and number of cigarettes smoked per day for an expanded list of causes of death. This appendix allows examination of dose-response relationships for these causes of death as well as presenting summary risk ratios. Tables are presented for white males and white females separately.

Appendix B is a series of detailed tables of risk by duration of smoking. Risks are presented for age-specific and number-of-cigarettes-smoked-per-day-specific categories for each duration of exposure. Never-smoker rates used in these tables are based on a logistic regression of the never-smoker age-specific rates for each cause of mortality. Risk estimates for white males and white females are presented for lung cancer, CHD, CVD, COPD, and all-cause mortality. Tables 1a-1f through 10a-10f present observed number of deaths, PYO's, never-smoker rates, excess mortality rates, and rate ratios for smokers compared with never-smokers.

Appendix C lists the number of deaths and PYO's for lung cancer, CHD, CVD, COPD, and all-cause mortality by age group for black never-smokers and current smokers of both genders and white never-smokers, current smokers, and former smokers of both genders.

Appendix D gives the age-specific rates by disease, and for all-cause mortality, for never-smokers. The rates are presented as observed death rates and fitted death rates resulting from Poisson regression and linear regression of the log rates.

REFERENCES

Garfinkel, L. Selection, follow-up, and analysis in the American Cancer Society prospective studies. *National Cancer Institute Monographs* 67: 49-52, 1985.

Hammond, E.C. Smoking in relation to the death rates of one million men and women. In: *Epidemiological Approaches to the Study of Cancer and Other Chronic Diseases*, W. Haenszel (Editor). National Cancer Institute Monograph No. 19. Bethesda, MD: U.S. Department of Health, Education, and Welfare, Public Health Service, National Institutes of Health, 1966, pp. 127-204.

Hammond, E.C., Garfinkel, L., Seidman, H., Lew, E.A. Some recent findings concerning cigarette smoking. In: *Origins of Human Cancer. Book A: Incidence of Cancer in Humans*, H.H. Hiatt, J.D. Watson, and J.A. Winsten (Editors). Cold Spring Harbor Conference on Cell Proliferation, Vol. 4. Cold Spring Harbor, NY: Cold Spring Harbor Laboratory, 1977, pp. 101-122.

Moolgavkar, S.H., Dewanji, A., Luebeck, G. Cigarette smoking and lung cancer: Reanalysis of the British doctors' data. *Journal of the National Cancer Institute* 81(6): 415-420, 1989.

U.S. Department of Health and Human Services. *Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General, 1989*. DHHS Publication No. (CDC) 89-8411. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1989.

World Health Organization. *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death* (7th ed. rev. of the International Lists of Diseases and Causes of Death, adapted 1955). Vol. 1. Geneva: World Health Organization, 1957.

Appendix A

Cause-Specific Risk Ratio of Mortality for White Males and Females for All Causes of Death

The tables in this appendix depict mortality risk ratio by cause of death for current smokers compared to never-smokers by level of cigarette consumption for 15-year age groups.

Cigarette consumption groups:

- 1-19 cigarettes per day;

- 20 cigarettes per day;

- 21+ cigarettes per day; and

- combined levels.

Age groups:

- 35-49 years;

- 50-64 years;

- 65-79 years;

- 80+ years; and

- combined ages.

The minimum requirement for a cell to display a ratio is two deaths in the category for both current smokers and never-smokers. All ratios are standardized by 5-year age-specific rates to the 1980 U.S. population.

```
            MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
        Current smoker rate divided by never smoker rate.
        Standardized by 5-year age-specific rates to 1980 US Population.
        Minimum deaths for cell:  2/2


WHITE MALE    / Coronary Artery Disease (Heart Disease)   (Deaths: 15644/8192

cig\age      35-49     50-64     65-79     80+     comb age

   1-19       3.0       1.8       1.4       1.1       1.4
   20         4.0       2.2       1.5       1.2       1.6
   21 +       4.7       2.3       1.5       1.2       1.6
combined      4.1       2.1       1.4       1.1       1.5


WHITE MALE    / Rheumatic Heart Disease, Acute & Chronic  (Deaths: 317/198)

cig\age      35-49     50-64     65-79     80+     comb age

   1-19       0.5       1.6       0.9       1.8       1.1
   20         1.2       1.3       0.7                 1.0
   21 +       1.2       1.1       0.9                 1.1
combined      1.0       1.3       0.8       1.6       1.1


WHITE MALE    / Hypertensive Heart Disease                (Deaths: 713/495)

cig\age      35-49     50-64     65-79     80+     comb age

   1-19       1.1       1.5       1.4       0.8       1.2
   20         1.7       1.5       1.4       0.9       1.2
   21 +       3.1       1.9       1.5       1.7       1.7
combined      2.1       1.6       1.4       0.9       1.3


WHITE MALE    / Cerebrovascular Disease                   (Deaths: 2930/2550)

cig\age      35-49     50-64     65-79     80+     comb age

   1-19       3.5       1.7       1.3       1.0       1.2
   20         3.2       2.0       1.3       1.0       1.2
   21 +       4.2       2.5       1.4       0.9       1.2
combined      3.6       2.1       1.3       1.0       1.2


WHITE MALE    / Aortic Aneurysm                           (Deaths: 804/149)

cig\age      35-49     50-64     65-79     80+     comb age

   1-19                 3.1       4.4       3.0       3.6
   20                   4.2       6.1       3.9       5.0
   21 +                 5.3       8.2       4.5       6.3
combined                4.3       5.9       3.5       4.7


WHITE MALE    / Hypertension                              (Deaths: 104/82)

cig\age      35-49     50-64     65-79     80+     comb age

   1-19                 1.9       1.4       0.5       0.9
   20                   1.6       1.5       1.6       1.5
   21 +       0.6       2.0       2.0                 1.2
combined      0.2       1.8       1.6       0.9       1.2
```

```
MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
  Current smoker rate divided by never smoker rate.
  Standardized by 5-year age-specific rates to 1980 US Population.
  Minimum deaths for cell:  2/2


WHITE MALE    / Other Heart & Circulatory                (Deaths: 1992/1478)

cig\age      35-49      50-64      65-79      80+      comb age

   1-19       1.3        1.9        1.4        1.2        1.4
   20         1.0        2.0        1.6        1.2        1.4
   21 +       1.4        2.5        1.7        0.9        1.3
combined      1.3        2.1        1.5        1.2        1.4


WHITE MALE    / Peptic Ulcer                             (Deaths: 342/98)

cig\age      35-49      50-64      65-79      80+      comb age

   1-19       2.9        4.5        3.0        2.3        2.9
   20         0.9        4.5        2.7        2.1        2.6
   21 +       1.9        5.4        3.9        3.7        3.9
combined      1.7        4.8        3.0        2.4        2.9


WHITE MALE    / Kidney Infection, Nephritis/Nephrosis    (Deaths: 361/275)

cig\age      35-49      50-64      65-79      80+      comb age

   1-19       2.7        1.1        1.2        0.9        1.2
   20         1.0        1.2        1.5        1.3        1.3
   21 +       0.6        1.4        1.7                   1.1
combined      1.2        1.2        1.4        1.0        1.2


WHITE MALE    / Cirrhosis of Liver                       (Deaths: 536/123)

cig\age      35-49      50-64      65-79      80+      comb age

   1-19       5.8        2.0        1.5                   2.0
   20         3.0        2.7        2.1                   2.2
   21 +       6.3        4.5        2.7                   3.4
combined      4.9        3.2        2.0                   2.5


WHITE MALE    / Diabetes                                 (Deaths: 401/307)

cig\age      35-49      50-64      65-79      80+      comb age

   1-19                  1.0        0.6        1.4        0.9
   20         0.6        1.5        1.1        0.7        1.0
   21 +       3.0        1.8        1.5                   1.1
combined      1.4        1.5        1.0        1.0        1.1


WHITE MALE    / Tuberculosis                             (Deaths: 54/25)

cig\age      35-49      50-64      65-79      80+      comb age

   1-19                  4.4        2.9                   1.8
   20                    2.3        2.2                   1.8
   21 +                  2.1        1.9                   1.1
combined                 2.8        2.4                   1.6
```

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```
MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
   Current smoker rate divided by never smoker rate.
   Standardized by 5-year age-specific rates to 1980 US Population.
   Minimum deaths for cell:  2/2
```

```
WHITE MALE   / Pneumonia, Influenza                 (Deaths: 649/464)

cig\age      35-49     50-64     65-79      80+    comb age

   1-19       0.3       1.7       1.8       1.1      1.3
   20         0.8       3.1       1.8       1.5      1.7
   21 +       0.4       3.4       2.2       1.1      1.6
combined      0.6       2.8       1.9       1.2      1.5
```

```
WHITE MALE   / C O P D                              (Deaths: 1374/119)

cig\age      35-49     50-64     65-79      80+    comb age

   1-19                 6.5       9.6       8.3      8.8
   20                  11.4      13.6      10.7     12.2
   21 +                13.2      18.5       9.0     14.1
combined               10.9      13.0       9.2     11.3
```

```
WHITE MALE   / Asthma                               (Deaths: 90/34)

cig\age      35-49     50-64     65-79      80+    comb age

   1-19                 2.4       2.2       2.7      2.4
   20                   2.8       2.1                2.3
   21 +                 2.0       1.7                1.3
combined                2.4       2.0       2.3      2.2
```

```
WHITE MALE   / Other Respiratory                    (Deaths: 254/108)

cig\age      35-49     50-64     65-79      80+    comb age

   1-19                 2.8       1.9       1.7      1.8
   20         0.5       3.2       2.4       2.2      2.3
   21 +                 4.7       2.4                2.1
combined      0.4       3.6       2.2       1.8      2.1
```

```
WHITE MALE   / Suicide                              (Deaths: 519/221)

cig\age      35-49     50-64     65-79      80+    comb age

   1-19       2.2       1.2       0.9                1.2
   20         2.1       1.1       1.5                1.3
   21 +       1.7       2.0       1.7                1.7
combined      1.9       1.4       1.3       0.5      1.4
```

```
WHITE MALE   / Violence                             (Deaths: 1097/623)

cig\age      35-49     50-64     65-79      80+    comb age

   1-19       1.0       1.1       1.1       1.2      1.1
   20         1.7       1.3       1.3       1.1      1.3
   21 +       2.2       1.3       1.3       1.7      1.1
combined      1.8       1.3       1.2       1.2      1.3
```

```
MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
   Current smoker rate divided by never smoker rate.
   Standardized by 5-year age-specific rates to 1980 US Population.
   Minimum deaths for cell:  2/2
```

WHITE MALE   / Cancer, Buccal & Pharyngeal   (Deaths: 230/29)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		5.5	3.8	3.6	3.9
20		8.8	3.8		4.1
21 +		11.5	8.6		6.3
combined		9.0	5.0	2.5	4.9

WHITE MALE   / Cancer, Esophagus   (Deaths: 160/30)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		2.6	2.7		2.4
20		4.5	5.1		3.9
21 +		6.0	5.5		5.4
combined		4.6	4.4	1.8	3.7

WHITE MALE   / Cancer, Stomach   (Deaths: 365/230)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.6	1.3	0.8	1.2
20		1.8	1.4	0.6	1.2
21 +		2.0	1.7		1.5
combined		1.8	1.4	0.8	1.3

WHITE MALE   / Cancer, Colon, Large Intestine   (Deaths: 591/483)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		0.9	1.0	1.2	1.0
20	0.5	0.9	1.1	1.5	1.1
21 +	1.3	1.0	1.4		1.1
combined	0.7	1.0	1.1	1.2	1.1

WHITE MALE   / Cancer, Rectum   (Deaths: 210/134)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.1	1.1	1.9	0.8	1.3
20	2.0	1.0	1.4	1.6	1.4
21 +	0.8	1.1	1.4	3.0	1.7
combined	1.4	1.0	1.6	1.3	1.4

WHITE MALE   / Cancer, Liver & Biliary (comb)   (Deaths: 174/86)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.5	1.1	1.2	1.2
20		3.1	1.6		1.3
21 +		3.0	1.7		1.9
combined		2.7	1.4	0.8	1.4

```
MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
   Current smoker rate divided by never smoker rate.
   Standardized by 5-year age-specific rates to 1980 US Population.
   Minimum deaths for cell:  2/2
```

WHITE MALE   / Cancer, Liver   (Deaths: 115/45)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.3	1.3		1.3
20		3.4	2.3		1.8
21 +		2.4	3.1		2.9
combined		2.5	2.0	1.0	1.8

WHITE MALE   / Cancer, Biliary passages   (Deaths: 40/24)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.5	1.3		1.3
20		2.0	1.4		1.1
21 +		3.5			0.6
combined		2.5	1.1		1.2

WHITE MALE   / Cancer, Gall Bladder   (Deaths: 19/17)

cig\age	35-49	50-64	65-79	80+	comb age
1-19			0.7		1.0
20					0.3
21 +			0.9		0.9
combined			0.6		0.8

WHITE MALE   / Cancer, Pancreas   (Deaths: 549/198)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.4	1.8	1.8	1.1	1.6
20	1.2	2.4	2.3	1.3	2.0
21 +	1.5	2.5	2.6		2.2
combined	1.4	2.3	2.2	1.2	1.9

WHITE MALE   / Cancer, Larynx   (Deaths: 105/4)

cig\age	35-49	50-64	65-79	80+	comb age
1-19			8.0		8.8
20			30.2		26.0
21 +			26.9		21.1
combined			20.8		19.1

WHITE MALE   / Cancer, Lung & Bronchus   (Deaths: 3163/191)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	3.8	7.1	8.4	2.4	6.1
20	9.5	12.9	14.8	8.2	12.2
21 +	11.5	19.3	23.4	14.7	19.2
combined	9.1	13.8	14.3	5.6	11.4

```
MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
    Current smoker rate divided by never smoker rate.
    Standardized by 5-year age-specific rates to 1980 US Population.
    Minimum deaths for cell:  2/2
```

WHITE MALE   / Cancer, Prostate   (Deaths: 563/572)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		0.9	1.5	1.1	1.2
20		1.3	1.2	0.9	1.0
21 +		1.3	1.0	0.7	0.9
combined		1.2	1.3	0.9	1.1

WHITE MALE   / Cancer, Kidney   (Deaths: 182/89)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.7	1.1	1.5	1.5
20		1.3	1.1		1.0
21 +		1.9	1.5		2.4
combined		1.6	1.2	1.4	1.5

WHITE MALE   / Cancer, Urinary Bladder, Urinary System   (Deaths: 318/102)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		3.0	2.0	3.1	2.2
20		5.0	3.0	3.8	3.1
21 +		5.8	3.7	4.7	3.9
combined		4.8	2.8	3.5	2.9

WHITE MALE   / Cancer, Non-Hodgkin's Lymphoma   (Deaths: 229/154)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	0.4	0.7	1.5	1.6	1.1
20	0.8	1.0	1.0		1.0
21 +	0.6	0.8	1.3		0.9
combined	0.7	0.9	1.3	1.4	1.1

WHITE MALE   / Cancer, Multiple Myeloma   (Deaths: 92/80)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.1	0.9		0.8
20		1.4	0.7		0.7
21 +		1.2	0.7		0.7
combined		1.3	0.8		0.8

WHITE MALE   / Cancer, Leukemia   (Deaths: 327/225)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.2	0.9	1.0	1.5	1.1
20	1.2	1.2	1.2	0.8	1.1
21 +	1.3	1.7	1.0	3.0	1.7
combined	1.3	1.3	1.1	1.4	1.2

```
MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
   Current smoker rate divided by never smoker rate.
   Standardized by 5-year age-specific rates to 1980 US Population.
   Minimum deaths for cell:  2/2
```

WHITE MALE   / Cancer, Hodgkin's Lymphoma   (Deaths: 73/33)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.1	4.6	0.5	2.3	1.6
20	2.9	4.3	0.7		1.8
21 +	1.4	3.5	0.4		0.9
combined	1.9	4.1	0.6	1.7	1.6

WHITE MALE   / Cancer, Melanoma of skin   (Deaths: 58/54)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		0.6	0.7		0.4
20	0.8	0.5	1.2		0.9
21 +	0.6	1.2	0.5		0.6
combined	0.6	0.8	0.8		0.7

WHITE MALE   / Cancer, Skin, non-melanoma   (Deaths: 21/16)

cig\age	35-49	50-64	65-79	80+	comb age
1-19					
20			1.8		1.9
21 +					0.5
combined			0.8		0.9

WHITE MALE   / Cancer, Brain   (Deaths: 232/115)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.2	0.9		1.1
20	2.1	1.6	1.1		1.5
21 +	1.6	1.4	0.9		1.2
combined	1.6	1.4	1.0		1.3

WHITE MALE   / Cancer, Bone   (Deaths: 32/15)

cig\age	35-49	50-64	65-79	80+	comb age
1-19			1.5	4.0	2.2
20		2.3	1.0		1.1
21 +		1.9	1.5		1.3
combined		1.7	1.4	2.3	1.9

WHITE MALE   / Cancer, Other   (Deaths: 639/221)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	0.6	2.5	1.8	1.5	1.8
20	1.7	2.7	2.0	2.7	2.3
21 +	1.9	3.6	2.8		2.5
combined	1.5	3.0	2.1	1.8	2.2

```
MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
  Current smoker rate divided by never smoker rate.
  Standardized by 5-year age-specific rates to 1980 US Population.
  Minimum deaths for cell:  2/2
```

WHITE MALE   / Other Diseases   (Deaths: 1562/998)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.9	1.2	1.3	1.0	1.2
20	2.4	1.7	1.3	0.8	1.2
21 +	2.5	1.7	1.5	1.0	1.4
combined	2.3	1.6	1.4	1.0	1.3

WHITE MALE   / All Causes Combined   (Deaths: 38181/19637)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.7	1.7	1.5	1.2	1.4
20	2.3	2.2	1.7	1.3	1.6
21 +	2.6	2.5	1.9	1.3	1.8
combined	2.3	2.2	1.7	1.2	1.6

```
MORTALITY RISK RATIO  by   LEVEL of CIGARETTE CONSUMPTION
   Current smoker rate divided by never smoker rate.
   Standardized by 5-year age-specific rates to 1980 US Population.
   Minimum deaths for cell:  2/2
```

WHITE FEMALE / Coronary Artery Disease (Heart Disease)   (Deaths: 3717/16458)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	2.7	1.8	1.3	1.1	1.2
20	3.2	2.5	1.5	1.1	1.4
21 +	5.3	2.9	1.7	1.3	1.6
combined	3.2	2.1	1.4	1.1	1.3

WHITE FEMALE / Rheumatic Heart Disease, Acute & Chronic (Deaths: 269/752)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.3	1.5	1.0	1.2	1.2
20	2.2	1.0	1.8		1.5
21 +	1.1	0.8	1.6		1.0
combined	1.5	1.3	1.3	1.1	1.3

WHITE FEMALE / Hypertensive Heart Disease   (Deaths: 444/2130)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.2	1.4	1.2	0.9	1.1
20	1.1	2.5	1.5	1.3	1.5
21 +	1.5	2.3	1.6		1.6
combined	1.2	1.8	1.3	1.0	1.2

WHITE FEMALE / Cerebrovascular Disease   (Deaths: 1483/8235)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.9	2.0	1.1	0.8	1.0
20	3.1	2.5	1.5	0.8	1.2
21 +	3.3	2.7	2.0	0.5	1.1
combined	2.5	2.2	1.3	0.8	1.0

WHITE FEMALE / Aortic Aneurysm   (Deaths: 144/251)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	6.2	3.4	2.4	4.5	3.5
20	6.1	7.5	4.4	4.2	4.6
21 +		12.4	1.4		4.8
combined	5.3	5.7	2.9	4.5	3.9

WHITE FEMALE / Hypertension   (Deaths: 46/245)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	0.9	1.3	1.1	0.8	0.9
20		2.1	1.2		1.6
21 +		1.0	2.9		1.1
combined	0.8	1.5	1.2	1.0	1.1

```
MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
   Current smoker rate divided by never smoker rate.
   Standardized by 5-year age-specific rates to 1980 US Population.
   Minimum deaths for cell:  2/2
```

WHITE FEMALE / Other Heart & Circulatory   (Deaths: 757/4919)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	0.9	1.1	1.3	0.8	0.9
20	1.5	2.0	1.5	0.9	1.1
21 +	1.4	1.4	1.5	1.0	1.2
combined	1.2	1.4	1.3	0.8	1.0

WHITE FEMALE / Peptic Ulcer   (Deaths: 79/207)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.8	1.4	1.4		0.9
20	1.9	4.6	3.5		2.6
21 +	6.9	4.1			4.8
combined	2.5	2.7	1.9	0.8	1.5

WHITE FEMALE / Kidney Infection, Nephritis/Nephrosis   (Deaths: 148/736)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.0	0.8	1.0	0.6	0.8
20	1.6	1.1	1.4	1.9	1.6
21 +	1.3	1.3	0.7		0.5
combined	1.2	1.0	1.1	0.8	1.0

WHITE FEMALE / Cirrhosis of Liver   (Deaths: 295/284)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	5.0	2.2	1.5		2.0
20	8.5	4.7	1.8		3.2
21 +	15.9	7.2	0.7		7.4
combined	7.7	3.6	1.5		2.9

WHITE FEMALE / Diabetes   (Deaths: 184/1148)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	0.3	1.0	0.6	0.7	0.7
20	1.7	0.9	1.0		0.9
21 +	2.0	1.5	0.8		1.4
combined	1.0	1.0	0.7	0.7	0.8

WHITE FEMALE / Tuberculosis   (Deaths: 11/56)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.4	1.5		0.7
20		1.1			0.5
21 +					
combined		1.1	1.4		0.6

```
MORTALITY RISK RATIO  by   LEVEL of CIGARETTE CONSUMPTION
   Current smoker rate divided by never smoker rate.
   Standardized by 5-year age-specific rates to 1980 US Population.
   Minimum deaths for cell:  2/2
```

WHITE FEMALE / Pneumonia, Influenza   (Deaths: 240/1252)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.3	1.7	1.4	0.8	1.0
20	0.8	1.6	2.2	1.1	1.4
21 +	3.2	4.0	2.7		1.1
combined	1.4	1.9	1.7	0.9	1.2

WHITE FEMALE / C O P D   (Deaths: 223/211)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	6.2	4.6	4.7	1.6	3.2
20	10.2	12.7	13.0		7.1
21 +	9.7	14.4	20.5		17.2
combined	7.9	8.1	7.9	2.0	5.0

WHITE FEMALE / Asthma   (Deaths: 35/80)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	0.8	1.5	2.0		1.6
20		2.4	1.5		1.0
21 +		1.6			0.5
combined	0.5	1.8	1.8		1.4

WHITE FEMALE / Other Respiratory   (Deaths: 81/252)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.7	1.0	1.0	1.1	1.1
20		1.6	1.8		1.9
21 +		2.6	7.9		6.4
combined	1.0	1.4	1.7	1.7	1.5

WHITE FEMALE / Suicide   (Deaths: 220/244)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.1	2.1	1.4		1.5
20	2.3	1.8	1.4		2.3
21 +	3.5	4.9	1.2		3.4
combined	1.8	2.3	1.4		2.0

WHITE FEMALE / Violence   (Deaths: 492/1531)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.5	1.1	1.4	1.1	1.3
20	1.0	1.3	1.2	1.9	1.5
21 +	2.2	1.8	2.2		1.2
combined	1.5	1.3	1.4	1.2	1.3

```
MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
   Current smoker rate divided by never smoker rate.
   Standardized by 5-year age-specific rates to 1980 US Population.
   Minimum deaths for cell:  2/2
```

WHITE FEMALE / Cancer, Buccal & Pharyngeal   (Deaths: 79/100)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		2.9	1.1		1.5
20	8.1	6.8	4.4		5.1
21 +		11.6	5.2		4.9
combined	3.3	5.1	2.3		2.8

WHITE FEMALE / Cancer, Esophagus   (Deaths: 58/57)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		2.7	2.8		2.3
20		10.7			2.0
21 +		26.6	15.8		10.7
combined		7.9	3.0		3.1

WHITE FEMALE / Cancer, Stomach   (Deaths: 104/558)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	0.2	0.9	0.9		0.6
20	0.5	0.8	1.2		1.2
21 +	0.8	0.9			0.3
combined	0.4	0.9	1.0		0.7

WHITE FEMALE / Cancer, Colon, Large Intestine   (Deaths: 405/1988)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	0.7	1.0	1.0	0.6	0.8
20	0.4	0.8	0.9	0.7	0.8
21 +	0.9	0.7	0.5		0.9
combined	0.6	0.9	0.9	0.7	0.8

WHITE FEMALE / Cancer, Rectum   (Deaths: 111/437)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	0.3	1.3	1.0	1.0	1.0
20	0.5	1.2	0.6		0.6
21 +	0.9	2.1			2.4
combined	0.5	1.3	0.8	1.0	1.0

WHITE FEMALE / Cancer, Liver & Biliary (comb)   (Deaths: 108/431)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.2	1.3	0.9		0.9
20	3.5	1.5	1.2		0.9
21 +		1.7	0.6		0.6
combined	1.7	1.4	1.0		0.9

```
MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
  Current smoker rate divided by never smoker rate.
  Standardized by 5-year age-specific rates to 1980 US Population.
  Minimum deaths for cell:  2/2
```

WHITE FEMALE / Cancer, Liver   (Deaths: 60/197)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.3	1.4	0.9		0.7
20	4.3	1.5	0.9		0.9
21 +		2.8			0.8
combined	2.1	1.6	0.9		0.8

WHITE FEMALE / Cancer, Biliary passages   (Deaths: 25/74)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.1	1.7		1.5
20		3.0	2.5		1.7
21 +			2.3		1.3
combined		1.7	2.0		1.6

WHITE FEMALE / Cancer, Gall Bladder   (Deaths: 23/160)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.3	0.6		0.7
20		0.8	0.8		0.6
21 +					
combined		1.0	0.6		0.7

WHITE FEMALE / Cancer, Pancreas   (Deaths: 230/665)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	2.4	1.5	1.4	1.3	1.4
20	4.7	1.4	1.1	2.5	1.6
21 +	2.5	2.2	2.2		1.7
combined	3.2	1.6	1.4	1.5	1.5

WHITE FEMALE / Cancer, Larynx   (Deaths: 15/7)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		5.2			1.3
20		9.4			6.2
21 +		18.9	70.0		28.4
combined		8.0	9.0		5.4

WHITE FEMALE / Cancer, Lung & Bronchus   (Deaths: 573/522)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.4	2.3	1.8	1.2	1.8
20	8.7	6.0	6.1		5.3
21 +	15.8	11.8	12.0		12.7
combined	5.8	4.6	3.7	1.8	3.6

```
MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
   Current smoker rate divided by never smoker rate.
   Standardized by 5-year age-specific rates to 1980 US Population.
   Minimum deaths for cell:  2/2
```

WHITE FEMALE / Cancer, Liver   (Deaths: 60/197)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.3	1.4	0.9		0.7
20	4.3	1.5	0.9		0.9
21 +		2.8			0.8
combined	2.1	1.6	0.9		0.8

WHITE FEMALE / Cancer, Biliary passages   (Deaths: 25/74)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.1	1.7		1.5
20		3.0	2.5		1.7
21 +			2.3		1.3
combined		1.7	2.0		1.6

WHITE FEMALE / Cancer, Gall Bladder   (Deaths: 23/160)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.3	0.6		0.7
20		0.8	0.8		0.6
21 +					
combined		1.0	0.6		0.7

WHITE FEMALE / Cancer, Pancreas   (Deaths: 230/665)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	2.4	1.5	1.4	1.3	1.4
20	4.7	1.4	1.1	2.5	1.6
21 +	2.5	2.2	2.2		1.7
combined	3.2	1.6	1.4	1.5	1.5

WHITE FEMALE / Cancer, Larynx   (Deaths: 15/7)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		5.2			1.3
20		9.4			6.2
21 +		18.9	70.0		28.4
combined		8.0	9.0		5.4

WHITE FEMALE / Cancer, Lung & Bronchus   (Deaths: 573/522)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.4	2.3	1.8	1.2	1.8
20	8.7	6.0	6.1		5.3
21 +	15.8	11.8	12.0		12.7
combined	5.8	4.6	3.7	1.8	3.6

```
MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
  Current smoker rate divided by never smoker rate.
  Standardized by 5-year age-specific rates to 1980 US Population.
  Minimum deaths for cell:  2/2
```

WHITE FEMALE / Cancer, Urinary Bladder, Urinary System   (Deaths: 66/205)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		2.1	2.2	1.1	1.7
20		3.8	2.3		1.4
21 +		5.0			0.5
combined		3.0	2.1	0.8	1.6

WHITE FEMALE / Cancer, Non-Hodgkin's Lymphoma   (Deaths: 127/469)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	0.3	1.1	0.9	1.6	1.0
20	0.7	1.0	1.2		0.9
21 +		1.6	0.6		0.7
combined	0.4	1.1	1.0	1.2	1.0

WHITE FEMALE / Cancer, Multiple Myeloma   (Deaths: 51/202)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.6	0.9		1.0
20		0.2	0.6		0.4
21 +		1.6			0.5
combined	1.2	1.2	0.7		0.8

WHITE FEMALE / Cancer, Leukemia   (Deaths: 127/536)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	0.7	1.2	0.8		0.8
20	0.6	1.4	0.6		0.6
21 +		1.3	1.3		0.9
combined	0.6	1.3	0.8		0.8

WHITE FEMALE / Cancer, Hodgkin's Lymphoma   (Deaths: 46/107)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.3	1.1	11.3	1.6
20	0.6	1.3			2.0
21 +		1.6			0.9
combined	0.3	1.3	1.1	11.6	1.7

WHITE FEMALE / Cancer, Melanoma of skin   (Deaths: 40/115)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	0.4	1.3	0.8		1.0
20	1.0	1.4	1.3		1.1
21 +					
combined	0.5	1.2	0.9		0.9

MORTALITY RISK RATIO by LEVEL of CIGARETTE CONSUMPTION
  Current smoker rate divided by never smoker rate.
  Standardized by 5-year age-specific rates to 1980 US Population.
  Minimum deaths for cell: 2/2

WHITE FEMALE / Cancer, Skin, non-melanoma   (Deaths: 7/32)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.3			0.6
20		2.6			0.5
21 +					
combined		1.6			0.5

WHITE FEMALE / Cancer, Brain   (Deaths: 125/297)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.1	1.0	0.6		0.9
20	1.4	1.2	1.6		2.3
21 +	0.9	0.9			0.6
combined	1.2	1.1	0.8		1.2

WHITE FEMALE / Cancer, Thyroid   (Deaths: 13/68)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		0.7			0.2
20	13.9	1.5	1.6		1.6
21 +					0.4
combined	5.8	1.0	0.4		0.6

WHITE FEMALE / Cancer, Bone   (Deaths: 11/43)

cig\age	35-49	50-64	65-79	80+	comb age
1-19		1.1			1.5
20		0.8			0.5
21 +		2.9			0.8
combined		1.2			1.3

WHITE FEMALE / Cancer, Other   (Deaths: 312/992)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.4	1.5	1.0	0.9	1.1
20	2.9	1.5	1.1		1.2
21 +	2.3	2.3	1.3		1.2
combined	2.0	1.6	1.1	0.9	1.2

WHITE FEMALE / Other Diseases   (Deaths: 813/2866)

cig\age	35-49	50-64	65-79	80+	comb age
1-19	1.3	1.3	1.1	1.1	1.2
20	1.5	1.6	1.4	0.8	1.2
21 +	1.8	1.3	1.5		1.5
combined	1.4	1.4	1.2	1.1	1.2

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MORTALITY RISK RATIO  by  LEVEL of CIGARETTE CONSUMPTION
  Current smoker rate divided by never smoker rate.
  Standardized by 5-year age-specific rates to 1980 US Population.
  Minimum deaths for cell:  2/2
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WHITE FEMALE / All Causes Combined                     (Deaths: 14047/55063)

cig\age      35-49     50-64     65-79      80+    comb age

  1-19        1.2       1.4       1.2       0.9      1.1
  20          1.6       1.8       1.5       1.0      1.3
  21 +        1.9       2.2       1.7       1.2      1.5
combined      1.4       1.6       1.3       1.0      1.2
```

Appendix **B**

Excess Mortality and Relative Risk (Rate Ratio) of Death for Current Smokers, by Duration, Number of Cigarettes Per Day, and Attained Age

For each category of 5-year duration of smoking, 5-year attained age, and number of cigarettes per day, a complete breakdown is given of the following:

- Observed deaths.

- Total person-years of observation (PYO's).

- Never-smoker rate for specific attained age; the modeled rate is provided by Poisson regression of never-smoker rates by age and weighted to the square root of PYO's. For combined ages, the rate is adjusted to match the distribution of PYO's by age for the comparable current smoker group.

- Excess mortality—current smoker rate minus never-smoker rate.

- Relative risk—current smoker rate divided by never-smoker rate.

Duration is given for 5-year groups from 0 to 80 years duration of smoking. Attained age is given for 5-year groups from 40 to 85 years of age. Reported cigarettes per day is given in categories of 1-9, 10-19, 20, 21-39, and 40+, and current smokers of any number of cigarettes. Combined rates are reported across both duration and age, with reported rates weighted to observed PYO's within the category.

Table   Subject Group

 1   White male lung cancer (1°, 2°, and 3° cause of death)

 2   White male coronary heart disease

 3   White male cerebrovascular disease

 4   White male chronic obstructive pulmonary disease (COPD)

 5   White male all-cause mortality

 6   White female lung cancer (1°, 2°, and 3° cause of death)

 7   White female coronary heart disease

 8   White female cerebrovascular disease

 9   White female COPD

10   White female all-cause mortality

Table Subgroup	Number of Cigarettes Per Day
A	1-9 cigarettes per day
B	10-19 cigarettes per day
C	20 cigarettes per day
D	21-39 cigarettes per day
E	40+ cigarettes per day
F	Current smokers of any number of cigarettes

Comparison of Lung Cancer Death Rates of Current Smokers
and Neversmokers for White Males Aged Between 40 and 84
1-9 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	3.4	5.1	7.6	11.3	16.9	25.2	37.6	56.2	84.0

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
50-54	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	5
55-59	0	0	0	0	0	0	0	2	5	2	0	0	0	0	0	0	9
60-64	0	0	0	0	0	1	0	3	5	10	0	0	0	0	0	0	19
65-69	0	0	0	0	0	1	0	3	3	5	6	1	0	0	0	0	19
70-74	0	0	0	0	0	0	0	0	1	0	7	3	6	0	0	0	17
75-79	0	0	0	0	0	1	0	1	2	0	1	7	9	0	0	0	21
80-84	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	3
CMA	0	0	0	0	1	6	1	11	17	19	14	11	15	0	1	0	96

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	22.9	104.8	235.9	668.3	1756.3	1862.2	297.9	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4958.2
45-49	62.5	194.8	302.3	511.4	1479.9	3831.6	4080.2	664.5	24.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11151.9
50-54	92.6	316.8	417.8	569.2	1095.8	3187.9	7477.6	7217.6	1134.8	35.9	0.0	0.0	0.0	0.0	0.0	0.0	21546.0
55-59	73.5	340.9	456.0	525.0	768.3	1568.3	4386.6	9656.8	8400.1	1353.1	38.9	0.0	0.0	0.0	0.0	0.0	27567.4
60-64	0.0	172.0	508.3	415.8	510.1	752.2	1481.3	3987.1	8517.9	6756.0	1170.6	34.8	0.0	0.0	0.0	0.0	24305.9
65-69	0.0	0.0	233.8	446.4	323.3	470.6	625.3	1113.8	3171.3	6200.9	4637.8	830.9	28.5	0.0	0.0	0.0	18082.6
70-74	0.0	0.0	0.0	247.1	463.3	269.9	379.6	448.4	889.7	2109.5	3814.8	2645.6	611.5	26.1	0.0	0.0	11905.3
75-79	0.0	0.0	0.0	0.0	260.3	394.0	188.6	249.8	324.6	532.8	1160.3	1838.6	1298.9	357.9	13.3	0.0	6619.0
80-84	0.0	0.0	0.0	0.0	0.0	194.3	226.8	105.3	113.7	132.3	207.3	405.5	716.1	468.0	159.8	4.0	2733.2
CMA	251.5	1129.4	2154.0	3383.1	6657.2	12531.0	19143.8	23453.2	22576.8	17120.6	11029.5	5755.3	2655.0	852.0	173.2	4.0	128869.5

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
7.7	9.3	11.7	12.6	11.9	11.2	11.1	12.9	17.2	23.7	32.9	44.9	59.1	70.9	81.8	84.0	19.1

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49					62.51	47.13											21.84
50-54						23.80	5.81	20.15	80.55								15.64
55-59								9.41	48.22	136.51							21.35
60-64						116.07		58.37	41.82	131.14							61.30
65-69						187.30		244.14	69.40	55.43	104.17	95.15					79.87
70-74									74.76		145.65	75.75	943.55				105.15
75-79						197.58		344.18	559.95			29.96	324.50	636.66			261.04
80-84																	25.79
CMA					3.12	36.65	-5.88	34.02	58.09	87.24	93.99	146.20	505.87				55.38

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49					13.34	10.31											5.31
50-54						4.15	1.77	3.66	11.65								3.07
55-59								1.83	5.27	13.08							2.89
60-64						7.88		4.46	3.48	8.77							4.63
65-69						8.43		10.69	3.75	3.20	5.13	4.77					4.17
70-74									2.99		4.87	3.01	26.06				3.79
75-79						4.51		7.12	10.96			1.53	6.77	12.32			5.64
80-84																	1.31
CMA					1.26	4.26	0.47	3.64	4.38	4.68	3.85	4.25	9.56				3.90

CMA=Combined ages.
CMD=Combined durations.

Comparison of Lung Cancer Death Rates of Current Smokers
and Neversmokers for White Males Aged Between 40 and 84
10-19 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	3.4	5.1	7.6	11.3	16.9	25.2	37.6	56.2	84.0

Observed deaths for smokers based on age groups \ durations (years)
Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
45-49	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0	0	6
50-54	0	0	0	0	0	0	12	9	3	0	0	0	0	0	0	0	24
55-59	0	1	0	0	0	0	5	19	28	7	2	0	0	0	0	0	62
60-64	0	0	0	0	0	2	0	15	37	39	8	0	0	0	0	0	101
65-69	0	0	0	0	0	1	0	2	11	34	35	12	0	0	0	0	95
70-74	0	0	0	1	1	0	0	1	2	13	25	37	11	1	0	0	92
75-79	0	0	0	0	0	1	1	3	0	3	5	28	14	6	0	0	61
80-84	0	0	0	0	0	0	0	0	0	1	0	3	2	5	2	0	13
CMA	0	1	0	1	3	5	23	49	81	97	75	80	27	12	2	0	456

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	17.3	66.8	244.1	1357.0	4857.6	5880.6	936.0	38.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13397.7
45-49	43.9	148.3	230.9	741.6	3160.6	10349.7	12504.3	2023.0	69.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29277.4
50-54	78.2	226.0	380.3	676.0	1807.8	6879.5	19801.0	20870.2	3341.1	100.7	0.0	0.0	0.0	0.0	0.0	0.0	54160.7
55-59	37.3	199.1	339.3	576.8	1064.3	2511.5	9043.5	25001.0	23516.3	3846.9	105.9	0.0	0.0	0.0	0.0	0.0	66542.0
60-64	0.0	84.4	311.7	383.8	644.1	1101.5	2362.0	8420.8	21191.9	18412.1	3158.2	106.9	0.0	0.0	0.0	0.0	56177.3
65-69	0.0	0.0	131.6	317.4	397.8	584.7	879.0	1800.5	6172.5	14388.7	11954.3	2418.4	84.8	0.0	0.0	0.0	39129.6
70-74	0.0	0.0	0.0	159.4	367.0	336.3	495.4	699.0	1313.8	3682.9	8133.3	6526.3	1520.6	56.4	0.0	0.0	23290.5
75-79	0.0	0.0	0.0	0.0	153.0	262.9	253.4	308.6	433.9	786.8	1827.3	3481.2	2766.5	713.8	18.5	0.0	11005.8
80-84	0.0	0.0	0.0	0.0	0.0	114.6	173.8	126.8	131.3	208.0	325.8	533.3	1093.7	819.5	264.5	1.7	3792.8
CMA	176.7	724.5	1637.9	4212.0	12452.2	28021.3	46748.4	59288.3	56170.0	41426.0	25504.8	13066.0	5465.5	1589.7	283.0	1.7	296773.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

7.3	8.8	10.6	9.6	8.2	8.0	9.2	11.7	15.8	22.2	31.1	42.0	56.1	69.9	82.2	84.0	17.2

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					37.78												11.54
45-49						4.60	34.92										15.43
50-54							53.04	36.56	82.23								36.75
55-59							42.21	64.70	107.77	170.67							81.68
60-64					164.70			161.25	157.72	194.94	236.44						162.91
65-69					145.83			85.88	153.01	211.09	267.58	470.99					217.58
70-74				234.84				105.42	114.58	315.34	269.73	529.30	685.76				357.37
75-79						324.12	338.38	915.96		325.09	217.40	748.10	449.83		784.41		498.03
80-84										396.79		478.61	98.90	526.15	672.17		258.78
CMA		129.25		14.13	15.94	9.88	39.97	70.97	128.37	211.99	263.01	570.26	437.88	685.00	624.55		136.46

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					12.14												4.40
45-49						1.91	7.90										4.05
50-54							8.01	5.70	11.87								5.86
55-59							4.74	6.73	10.54	16.11							8.25
60-64					10.76			10.56	10.35	12.55	15.01						10.65
65-69					6.79			4.41	7.07	9.38	11.62	19.69					9.63
70-74				7.24				3.80	4.04	9.38	8.17	15.06	19.22				10.49
75-79						6.76	7.02	17.29		6.78	4.87	14.31	9.00		14.95		9.86
80-84										5.73		6.70	2.18	7.27	9.00		4.08
CMA		15.72		2.47	2.96	2.24	5.33	7.06	9.11	10.57	9.47	14.57	8.80	10.80	8.60		8.94

CMA=Combined ages.
CMD=Combined durations.

Comparison of Lung Cancer Death Rates of Current Smokers
and Neversmokers for White Males Aged Between 40 and 84
20 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	3.4	5.1	7.6	11.3	16.9	25.2	37.6	56.2	84.0

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	1	1	3	2	0	0	0	0	0	0	0	0	0	7
45-49	0	0	0	0	1	9	29	2	0	0	0	0	0	0	0	0	41
50-54	0	1	0	1	0	10	32	39	19	1	0	0	0	0	0	0	103
55-59	0	1	0	1	1	0	16	77	110	29	2	0	0	0	0	0	237
60-64	0	0	1	1	2	1	6	21	114	120	37	2	0	0	0	0	305
65-69	0	0	0	1	0	0	3	4	34	102	111	32	0	0	0	0	287
70-74	0	0	0	1	1	1	2	2	4	23	72	63	22	1	0	0	192
75-79	0	0	0	0	0	1	1	5	1	2	14	37	42	9	0	0	112
80-84	0	0	0	0	0	0	0	0	0	1	1	6	13	9	3	0	33
CMA	0	2	1	6	6	25	91	150	282	278	237	140	77	19	3	0	1317

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	15.9	83.6	329.9	2841.8	11988.3	15971.4	2856.6	85.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34173.0
45-49	54.6	153.2	373.2	1283.2	6503.3	25247.0	34125.2	6451.8	204.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74395.6
50-54	76.3	262.0	481.1	1169.9	3063.6	14515.9	48267.8	55330.5	10600.3	326.3	0.0	0.0	0.0	0.0	0.0	0.0	134093.8
55-59	21.4	196.0	423.4	847.6	1768.8	4184.3	19276.4	59059.8	60180.5	11710.8	323.8	0.0	0.0	0.0	0.0	0.0	157992.7
60-64	0.0	69.2	297.2	499.3	992.2	1749.8	3921.8	16326.5	46302.3	42031.2	8527.7	239.4	0.0	0.0	0.0	0.0	120956.3
65-69	0.0	0.0	132.3	364.0	487.8	799.9	1294.9	2628.4	10320.5	27101.6	23005.1	5127.1	167.3	0.0	0.0	0.0	71749.0
70-74	0.0	0.0	0.0	191.7	397.5	378.6	522.8	804.4	1578.4	5393.2	13110.8	10574.4	2739.4	88.5	0.0	0.0	35779.6
75-79	0.0	0.0	0.0	0.0	169.2	310.3	242.3	306.0	419.4	795.8	2299.2	4814.0	3818.4	1132.4	40.5	0.0	14347.4
80-84	0.0	0.0	0.0	0.0	0.0	116.3	146.9	96.5	126.3	150.2	283.1	552.3	1260.1	951.9	338.6	16.5	4038.5
CMA	168.3	763.9	2037.1	7217.4	25370.6	63273.4	110654.5	141089.5	129731.8	87509.0	47849.5	21307.2	7985.3	2172.8	379.1	16.5	647525.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
6.8	8.4	9.7	8.3	6.7	6.8	8.2	10.7	14.6	20.4	28.9	39.8	53.6	67.6	81.0	84.0	14.9

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				31.80	4.95	15.39	66.62										17.09
45-49				10.31		30.58	79.92	25.93									50.05
50-54		374.11		77.91		61.33	58.73	62.92	171.68	298.87							69.25
55-59				106.68	45.24		71.70	119.08	171.49	236.34	606.46						138.71
60-64			319.64	183.39	184.70	40.28	136.12	111.75	229.33	268.63	417.01	818.49					235.26
65-69				235.21			206.47	126.98	304.24	351.16	451.09	598.93					374.80
70-74				213.93		226.50	344.95	210.98	215.77	388.82	511.52	558.13	765.45				498.97
75-79						266.01	356.57	1577.76	182.20	195.11	552.69	712.37	1043.71	738.54			724.40
80-84											269.28	1002.49	947.70	861.49	802.07		733.16
CMA		253.40	39.38	74.84	16.94	32.71	74.02	95.57	202.75	297.26	466.43	617.24	910.70	806.81	710.37		588.51

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				10.38	2.46	5.54	20.65										6.04
45-49				3.04		7.04	16.78	6.12									10.88
50-54		50.46		11.30		9.11	8.76	9.32	23.69	40.51							10.15
55-59				10.44	5.00		7.35	11.54	16.18	21.92	54.68						13.28
60-64			19.94	11.87	11.95	3.39	9.07	7.62	14.59	16.92	25.71	49.50					14.94
65-69				10.33			9.19	6.04	13.07	14.93	18.90	24.76					15.87
70-74				6.68		7.02	10.16	6.60	6.73	11.33	14.59	15.83	21.33				14.26
75-79						5.73	7.34	29.06	4.24	4.47	10.83	13.67	19.56	14.14			13.88
80-84											4.21	12.94	12.29	11.26	10.55		9.73
CMA		31.14	5.06	10.02	3.52	5.81	10.00	9.89	14.87	15.55	17.15	16.50	18.00	12.93	9.77		13.67

CMA=Combined ages.
CMD=Combined durations.

Comparison of Lung Cancer Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

21-39 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	3.4	5.1	7.6	11.3	16.9	25.2	3?.6	56.2	84.0

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74
40-44	0	0	0	0	4	2	1	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	2	18	4	0	0	0	0	0	0	0
50-54	0	0	0	0	2	2	30	63	13	0	0	0	0	0	0
55-59	0	0	0	1	0	1	17	58	90	16	0	0	0	0	0
60-64	0	0	0	0	0	0	2	28	76	98	33	3	0	0	0
65-69	0	0	0	0	1	1	2	3	17	72	89	14	1	0	0
70-74	0	0	0	0	1	3	0	0	3	20	36	37	16	1	0
75-79	0	0	0	0	0	0	0	0	1	1	4	20	16	3	1
80-84	0	0	0	0	0	0	0	1	0	0	1	1	4	1	3
CMA	0	0	0	1	8	11	70	157	200	207	163	75	37	5	4

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74
40-44	3.1	26.2	160.2	1720.0	7693.8	10580.9	2000.3	64.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45-49	20.6	46.6	151.4	725.8	4094.9	16627.3	23137.9	4715.6	146.1	0.0	0.0	0.0	0.0	0.0	0.0
50-54	21.8	92.3	204.5	581.7	1792.3	9184.8	31882.9	36894.5	7345.4	234.4	0.0	0.0	0.0	0.0	0.0
55-59	4.6	62.8	171.2	370.3	852.9	2408.5	12048.3	37327.9	37787.0	7906.3	208.3	0.0	0.0	0.0	0.0
60-64	0.0	22.0	91.0	183.4	424.9	767.7	2031.0	9457.1	26549.2	23365.3	5263.6	145.2	0.0	0.0	0.0
65-69	0.0	0.0	33.5	105.4	194.3	322.6	556.9	1240.0	5098.3	13010.6	10937.7	2664.8	77.8	0.0	0.0
70-74	0.0	0.0	0.0	42.8	100.6	134.4	218.6	326.2	567.9	2081.1	4997.5	3830.8	1070.8	30.2	0.0
75-79	0.0	0.0	0.0	0.0	37.5	68.4	71.2	81.3	123.6	236.8	680.3	1373.9	1070.8	316.1	7.6
80-84	0.0	0.0	0.0	0.0	0.0	12.5	22.8	17.3	19.9	38.4	66.7	138.5	287.1	233.4	63.9
CMA	50.0	249.8	811.8	3729.5	15191.2	40107.0	71969.9	90124.6	77637.3	46872.8	22154.0	8153.2	2506.5	579.7	71.5

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

6.6	8.4	8.8	6.8	5.8	6.2	7.8	10.4	14.0	19.4	27.0	37.1	50.5	66.4	81.0

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					48.60	15.51	46.60										28.07
45-49						6.96	72.73	79.76									43.26
50-54					104.03	14.21	86.53	163.19	169.42								117.10
55-59				258.73		30.22	129.80	144.08	226.88	191.07							173.27
60-64							81.60	279.20	269.39	402.55	610.07						334.51
65-69						284.79	333.92	216.73	308.24	528.19	788.50	500.17					558.88
70-74									490.60	923.39	682.72	928.20	1456.64				835.44
75-79										366.16	531.72	1399.47	1437.94	892.89			1074.69
80-84													1309.35	344.44			1134.86
CMA				19.99	46.87	21.25	89.43	163.84	243.57	422.24	708.73	882.76	1425.66	796.13			233.71

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					15.33	5.57	14.74										9.28
45-49						2.37	15.36	16.75									9.54
50-54					14.75	2.88	12.44	22.57	23.40								16.48
55-59				23.90		3.67	12.49	13.75	21.08	17.91							16.34
60-64							5.84	17.55	16.96	24.86	37.15						20.82
65-69						12.30	14.25	9.60	13.23	21.96	32.28	20.85					23.17
70-74									14.03	25.53	19.14	25.66	39.69				23.19
75-79										7.51	10.46	25.89	26.57	16.88			20.11
80-84													16.59	5.10			14.51
CMA				3.93	9.09	4.44	12.42	16.81	18.35	22.79	27.22	24.78	29.23	12.98			18.99

CMA=Combined ages.
CMD=Combined durations.

Comparison of Lung Cancer Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

40+ cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	3.4	5.1	7.6	11.3	16.9	25.2	37.6	56.2	84.0

Observed deaths for smokers based on age groups \ durations (years)
Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	5
45-49	0	0	0	0	2	5	8	2	0	0	0	0	0	0	0	0	17
50-54	0	0	0	0	0	3	19	25	10	0	0	0	0	0	0	0	57
55-59	0	0	0	0	0	0	10	46	72	26	1	0	0	0	0	0	155
60-64	0	0	0	0	0	1	4	25	54	71	20	2	0	0	0	0	177
65-69	0	0	0	0	0	1	4	4	11	57	36	14	0	0	0	0	127
70-74	0	0	0	0	0	1	0	0	0	2	24	20	9	0	0	0	56
75-79	0	0	0	0	0	0	0	0	0	2	2	12	11	2	0	0	29
80-84	0	0	0	0	0	0	0	1	0	0	1	0	0	5	0	0	7
CMA	0	0	0	0	4	14	45	103	147	158	84	48	20	7	0	0	630

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	11.5	20.8	123.6	878.3	3739.6	5384.8	1323.4	49.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11531.8
45-49	13.8	62.2	84.8	422.8	2256.2	8956.0	12920.9	3339.8	122.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28178.6
50-54	14.8	64.6	173.0	365.9	1007.7	5046.6	17670.1	21472.3	5376.2	187.3	0.0	0.0	0.0	0.0	0.0	0.0	51378.3
55-59	10.4	60.0	112.3	252.4	525.8	1455.3	6804.4	21049.2	21980.8	5528.8	163.3	0.0	0.0	0.0	0.0	0.0	57942.7
60-64	0.0	24.0	85.7	123.0	259.2	507.4	1233.5	5238.6	14826.3	13360.3	3459.3	111.2	0.0	0.0	0.0	0.0	39228.3
65-69	0.0	0.0	27.4	58.3	100.9	194.5	317.7	732.0	2775.1	6904.7	5780.3	1696.1	59.8	0.0	0.0	0.0	18646.7
70-74	0.0	0.0	0.0	16.9	41.1	72.8	98.2	176.4	349.3	1028.9	2461.4	2001.6	715.9	29.8	0.0	0.0	6992.3
75-79	0.0	0.0	0.0	0.0	14.0	23.4	37.5	51.3	78.3	112.9	293.5	619.0	538.8	230.4	5.8	0.0	2004.9
80-84	0.0	0.0	0.0	0.0	0.0	6.1	11.3	16.2	21.3	16.8	22.5	62.4	140.0	116.1	43.5	2.3	458.3
CMA	50.5	231.6	606.7	2117.7	7944.3	21646.8	40416.9	52125.7	45529.4	27139.7	12180.3	4490.3	1454.5	376.3	49.3	2.3	216361.9

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

6.7	8.5	9.2	7.0	5.9	6.3	7.8	10.3	13.8	18.8	26.0	35.6	48.5	63.3	80.7	84.0	12.8

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					50.09	52.32											39.97
45-49					63.56	50.76	56.85	54.82									55.26
50-54						51.88	99.96	108.86	178.44								103.38
55-59							135.67	207.24	316.26	458.96							256.21
60-64						180.20	307.41	460.35	347.34	514.55	561.29						434.33
65-69							1233.98	521.24	371.18	800.32	597.61	800.23					655.88
70-74										156.74	937.40	961.56	1219.49				763.24
75-79												625.21	1882.39	1985.22	811.77		1390.22
80-84																	1443.30
CMA					44.44	58.38	103.52	187.33	309.05	563.39	663.62	1033.35	1326.57	1797.15			278.37

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					15.77	16.43											12.79
45-49					17.50	11.02	12.22	11.82									11.91
50-54						7.86	14.21	15.39	24.59								14.67
55-59							13.01	19.34	28.99	41.62							23.68
60-64						11.66	19.22	28.28	21.58	31.49	34.26						26.74
65-69							49.96	21.68	15.73	32.75	24.71	32.75					27.02
70-74										5.16	25.90	26.54	33.40				21.28
75-79												12.12	34.48	36.31	15.44		25.73
80-84																	18.19
CMA					8.52	10.27	14.24	19.25	23.37	30.99	26.50	30.00	28.37	29.38			22.73

CMA=Combined ages.
CMD=Combined durations.

Comparison of Lung Cancer Death Rates of Current Smokers
and Neversmokers for White Males Aged Between 40 and 84
Current smokers of any number of cigarettes

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	3.4	5.1	7.6	11.3	16.9	25.2	37.6	56.2	84.0

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	1	9	8	3	0	0	0	0	0	0	0	0	0	21
45-49	0	0	0	0	4	19	60	8	0	0	0	0	0	0	0	0	91
50-54	0	1	0	1	2	16	94	138	46	1	0	0	0	0	0	0	299
55-59	0	2	0	2	1	1	48	202	307	80	5	0	0	0	0	0	648
60-64	0	0	1	1	2	5	12	92	288	339	99	7	0	0	0	0	846
65-69	0	0	0	1	1	4	9	16	76	271	279	74	1	0	0	0	732
70-74	0	0	0	2	3	5	2	3	10	61	164	161	64	3	0	0	478
75-79	0	0	0	0	0	3	2	9	4	8	26	104	93	20	1	0	270
80-84	0	0	0	0	0	0	0	2	0	4	3	10	21	20	9	0	69
CMA	0	3	1	8	22	61	230	470	731	764	576	356	179	43	10	0	3454

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	70.7	306.3	1109.5	7511.5	30155.5	39819.0	7427.3	249.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86649.2
45-49	204.6	608.3	1152.2	3709.5	17582.3	65235.1	87054.7	17245.7	567.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	193359.5
50-54	283.6	972.4	1666.7	3377.8	8813.7	38957.3	125546.2	142326.2	27912.5	889.7	0.0	0.0	0.0	0.0	0.0	0.0	350745.8
55-59	147.3	860.8	1517.3	2590.4	4998.8	12185.2	52066.3	152730.6	152535.9	30473.9	847.4	0.0	0.0	0.0	0.0	0.0	410973.7
60-64	0.0	373.6	1308.4	1628.2	2850.3	4907.7	11087.3	43648.0	118020.7	104549.8	21697.3	641.4	0.0	0.0	0.0	0.0	310712.5
65-69	0.0	0.0	565.7	1328.6	1518.3	2390.4	3710.8	7567.8	27687.5	68038.6	57018.8	12818.9	421.2	0.0	0.0	0.0	183066.3
70-74	0.0	0.0	0.0	674.8	1404.1	1199.9	1732.8	2484.8	4751.0	14410.2	32827.4	25806.5	6714.3	235.6	0.0	0.0	92241.3
75-79	0.0	0.0	0.0	0.0	649.4	1076.7	795.9	1004.8	1402.7	2490.8	6325.8	12247.8	9584.8	2800.8	89.1	0.0	38468.3
80-84	0.0	0.0	0.0	0.0	0.0	452.0	590.3	365.1	414.3	552.5	916.5	1711.0	3531.6	2617.2	884.3	27.4	12062.2
CMA	706.1	3121.3	7319.7	20820.7	67972.2	166223.2	290031.3	367622.3	333291.9	221405.4	119633.2	53225.6	20251.8	5653.5	973.3	27.4	1678278.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

7.2	8.8	10.3	8.9	7.2	7.1	8.4	10.9	14.8	20.6	29.1	40.2	54.3	68.3	81.4	84.0	14.9

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				9.92	26.45	16.70	37.00										20.84
45-49				17.69	24.06	63.86		41.32									42.00
50-54		95.27		22.04	15.13	33.51	67.31	89.40	157.24	104.84							77.68
55-59		221.06		65.91	8.71	-3.09	80.86	120.96	189.97	251.22	578.73						146.38
60-64			59.55	44.54	53.29	85.01	91.36	193.90	227.15	307.37	439.40	1074.46					255.40
65-69				50.06	40.66	142.13	217.33	186.22	249.29	373.10	464.11	552.07	212.23				374.65
70-74				258.76	176.02	379.05	77.78	83.09	172.84	385.67	461.94	586.23	915.54	1235.79			480.56
75-79						222.41	195.06	839.52	228.95	264.96	354.79	792.91	914.07	657.87			645.65
80-84								463.84		640.01	243.36	500.48	510.66	680.21	933.84		488.06
CMA		87.30	3.32	29.52	25.15	29.57	70.87	116.97	204.57	324.48	452.37	628.69	829.61	692.29	945.96		190.87

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				3.93	8.80	5.92	11.91										7.15
45-49					4.49	5.75	13.61	9.16									9.29
50-54		13.59		3.91	3.00	5.43	9.90	12.82	21.79	14.86							11.27
55-59		20.57		6.83	1.77	0.73	8.16	11.71	17.81	23.24	52.22						13.96
60-64			4.53	3.64	4.16	6.04	6.41	12.49	14.46	19.21	27.04	64.67					16.14
65-69				2.99	2.61	6.64	9.62	8.39	10.89	15.80	19.41	22.90	9.42				15.86
70-74				7.67	5.68	11.07	3.07	3.21	5.59	11.25	13.27	16.57	25.32	33.83			13.77
75-79						4.96	4.47	15.93	5.07	5.71	7.31	15.10	17.26	12.70			12.48
80-84								6.52		8.62	3.90	6.96	7.08	9.10	12.12		6.81
CMA		10.91	1.32	4.31	4.49	5.15	9.41	11.75	14.86	16.76	16.55	16.65	16.29	11.14	12.62		13.77

CMA=Combined ages.
CMD=Combined durations.

Comparison of Coronary Heart Disease Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

1-9 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	73.3	120.6	198.5	326.6	537.6	884.8	1456.3	2396.9	3944.9

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	1	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	4
45-49	0	0	2	2	1	5	7	2	0	0	0	0	0	0	0	0	19
50-54	0	1	0	0	0	8	25	22	4	0	0	0	0	0	0	0	60
55-59	0	0	0	2	2	4	27	58	51	7	0	0	0	0	0	0	151
60-64	0	0	4	4	3	6	11	27	66	64	10	1	0	0	0	0	196
65-69	0	0	1	6	0	7	6	13	28	74	77	23	0	0	0	0	235
70-74	0	0	0	3	8	4	4	9	13	36	76	50	11	0	0	0	214
75-79	0	0	0	0	4	16	6	2	10	22	23	53	63	12	0	0	211
80-84	0	0	0	0	0	2	10	6	3	4	10	13	26	20	2	0	96
CMA	1	1	7	17	19	52	98	139	175	207	196	140	100	32	2	0	1186

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	Total
40-44	22.9	104.8	235.9	668.3	1756.3	1862.2	297.9	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4958.2
45-49	62.5	194.8	302.3	511.4	1479.9	3831.6	4080.2	664.5	24.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11151.9
50-54	92.6	316.8	417.8	569.2	1095.8	3187.9	7477.6	7217.6	1134.8	35.9	0.0	0.0	0.0	0.0	0.0	0.0	21546.0
55-59	73.5	340.9	456.0	525.0	768.3	1568.3	4386.6	9656.8	8400.1	1353.1	38.9	0.0	0.0	0.0	0.0	0.0	27567.4
60-64	0.0	172.0	508.3	415.8	510.1	752.2	1481.3	3987.1	8517.9	6756.0	1170.6	34.8	0.0	0.0	0.0	0.0	24305.9
65-69	0.0	0.0	233.8	446.4	323.3	470.6	625.3	1113.8	3171.3	6200.9	4637.8	830.9	28.5	0.0	0.0	0.0	18082.6
70-74	0.0	0.0	0.0	247.1	463.3	269.9	379.6	448.4	889.7	2109.5	3814.8	2645.6	611.5	26.1	0.0	0.0	11905.3
75-79	0.0	0.0	0.0	0.0	260.3	394.0	188.6	249.8	324.6	532.8	1160.3	1838.6	1296.9	357.9	13.3	0.0	6619.0
80-84	0.0	0.0	0.0	0.0	0.0	194.3	226.8	105.3	113.7	132.3	207.3	405.5	716.1	468.0	159.8	4.0	2733.2
CMA	251.5	1129.4	2154.0	3383.1	6657.2	12531.0	19143.8	23453.2	22576.8	17120.6	11029.5	5755.3	2655.0	852.0	173.2	4.0	128869.5

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

205.2	263.7	355.5	406.0	395.7	372.5	348.9	403.5	570.5	843.4	1260.2	1844.1	2581.5	3218.4	3625.7	3944.9	683.2

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				-16.32			598.06										7.41
45-49			541.12	270.49	-53.01	9.91	50.98	180.39									49.79
50-54		117.16				52.48	135.87	106.35	154.01								80.01
55-59				54.31	-66.31	-71.60	268.87	273.97	280.49	190.69							221.11
60-64			249.41	424.51	50.53	260.09	204.97	139.58	237.23	409.70	316.67						268.78
65-69			-457.18	459.21		602.69	74.79	282.31	-1.90	308.54	775.46	1683.20					414.76
70-74				-242.14	270.62	25.63	-402.52	550.75	4.91	250.26	535.96	433.63	342.55				341.21
75-79					-859.90	1664.03	784.74	-1596.0	683.99	1731.99	-414.55	485.77	2453.31	955.85			790.91
80-84						-2915.7	463.59				880.16	-739.02	-314.07	328.57	-2693.6		-432.52
CMA	192.45	-175.21	-30.52	96.53	-110.30	42.43	162.98	189.15	204.66	365.69	516.83	588.46	1184.93	537.44	-2670.7		237.13

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				0.78			9.16										1.10
45-49			5.49	3.24	0.56	1.08	1.42	2.50									1.41
50-54		1.59				1.26	1.68	1.54	1.78								1.40
55-59				1.17	0.80	0.78	1.88	1.84	1.86	1.58							1.68
60-64			1.46	1.79	1.09	1.48	1.38	1.26	1.44	1.76	1.59						1.50
65-69			0.48	1.52		1.68	1.08	1.32	1.00	1.35	1.88	3.13					1.47
70-74				0.83	1.19	1.02	0.72	1.38	1.00	1.17	1.37	1.30	1.24				1.23
75-79					0.64	1.69	1.33	0.33	1.29	1.72	0.83	1.20	2.02	1.40			1.33
80-84						0.26	1.12				1.22	0.81	0.92	1.08	0.32		0.89
CMA	1.94	0.34	0.91	1.24	0.72	1.11	1.47	1.47	1.36	1.43	1.41	1.32	1.46	1.17	0.30		1.35

CMA=Combined ages.
CMD=Combined durations.

Comparison of Coronary Heart Disease Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

10-19 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	73.3	120.6	198.5	326.6	537.6	884.8	1456.3	2396.9	3944.9

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	1	1	2	8	3	0	0	0	0	0	0	0	0	0	15
45-49	0	0	0	1	7	34	34	4	0	0	0	0	0	0	0	0	80
50-54	0	2	2	2	7	28	68	90	13	0	0	0	0	0	0	0	212
55-59	1	2	0	6	5	14	59	151	186	38	0	0	0	0	0	0	462
60-64	0	0	1	1	3	12	24	77	186	209	34	2	0	0	0	0	549
65-69	0	0	0	3	5	11	12	32	93	189	210	38	4	0	0	0	597
70-74	0	0	0	4	9	4	8	4	32	60	178	174	38	2	0	0	513
75-79	0	0	0	0	9	2	9	13	16	21	37	110	80	30	2	0	329
80-84	0	0	0	0	0	1	8	3	7	11	11	29	58	45	4	0	177
CMA	1	4	4	18	47	114	225	374	533	528	470	353	180	77	6	0	2934

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	17.3	66.8	244.1	1357.0	4857.6	5880.6	936.0	38.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13397.7
45-49	49.9	148.3	230.9	741.6	3160.6	10349.7	12504.3	2023.0	69.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	29277.4
50-54	78.2	226.0	380.3	676.0	1807.8	6879.5	19801.0	20870.2	23516.3	3846.9	100.7	0.0	0.0	0.0	0.0	0.0	54160.7
55-59	37.3	199.1	339.3	576.8	1064.3	2511.5	9043.5	25001.0	23516.3	3846.9	105.9	0.0	0.0	0.0	0.0	0.0	66542.0
60-64	0.0	84.4	311.7	383.8	644.1	1101.5	2362.0	8420.8	21191.9	18412.1	3158.2	106.9	0.0	0.0	0.0	0.0	56177.3
65-69	0.0	0.0	131.6	317.4	397.8	584.7	879.0	1800.5	6172.5	14388.7	11954.3	2418.4	84.8	0.0	0.0	0.0	39129.6
70-74	0.0	0.0	0.0	159.4	367.0	336.3	495.4	699.0	1313.8	3682.9	8133.3	6526.3	1520.6	56.4	0.0	0.0	23290.5
75-79	0.0	0.0	0.0	0.0	153.0	262.9	253.4	308.6	433.9	786.8	1827.3	3481.2	2766.5	713.8	18.5	0.0	11005.8
80-84	0.0	0.0	0.0	0.0	0.0	114.6	173.8	126.8	131.3	208.0	325.8	533.3	1093.7	819.5	264.5	1.7	3792.8
CMA	182.7	724.5	1637.9	4212.0	12452.2	28021.3	46748.4	59288.3	56170.0	41426.0	25504.8	13066.0	5465.5	1589.7	283.0	1.7	296773.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

191.6	245.7	315.1	292.2	244.4	233.6	270.0	353.1	510.6	771.9	1169.2	1695.2	2421.5	3161.5	3643.7	3944.9	596.7

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44		336.43	0.43	-32.09	62.78	247.25											38.70
45-49			14.26	100.89	207.93	151.32	77.14										152.66
50-54		686.49	327.39	97.39	188.76	208.54	144.95	232.77	190.63								192.96
55-59		677.96		713.52	143.13	230.79	304.81	277.33	464.30	661.16							367.66
60-64			-216.75	-277.02	-71.83	551.81	478.48	376.79	340.08	597.52	538.96						439.65
65-69				60.30	371.98	996.58	480.36	892.45	621.85	428.70	871.87	686.45					640.87
70-74			1052.84		996.01	-267.01	158.49	-684.06	979.31	172.84	732.22	1209.85	1042.73				746.31
75-79					3485.47	-1636.1	1154.58	1815.92	1290.46	272.33	-372.07	762.98	494.86	1806.27			592.44
80-84							659.38				1343.53	-568.11	1443.42	1358.33	1546.22	-2432.6	721.86
CMA		306.37	-70.84	135.15	133.08	173.22	211.34	277.74	438.33	502.67	673.62	1006.49	871.86	1682.23	-1723.5		391.95

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44		5.59	1.01	0.56	1.86	4.37											1.53
45-49			1.12	1.84	2.72	2.25	1.64										2.27
50-54		4.46	2.65	1.49	1.95	2.05	1.73	2.17	1.96								1.97
55-59		3.08		3.18	1.44	1.71	1.93	1.85	2.42	3.02							2.13
60-64			0.60	0.48	0.87	2.03	1.89	1.70	1.63	2.11	2.00						1.82
65-69				1.07	1.42	2.13	1.54	2.01	1.70	1.48	1.99	1.78					1.72
70-74			1.72		1.68	0.82	1.11	0.39	1.67	1.12	1.50	1.83	1.72				1.51
75-79					2.45	0.32	1.48	1.76	1.54	1.11	0.84	1.32	1.21	1.75			1.25
80-84							1.17				1.34	0.86	1.38	1.34	1.39	0.38	1.18
CMA		2.25	0.78	1.46	1.54	1.74	1.78	1.79	1.86	1.65	1.58	1.59	1.36	1.53	0.55		1.66

CMA=Combined ages.
CMD=Combined durations.

Comparison of Coronary Heart Disease Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

20 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	73.3	120.6	198.5	326.6	537.6	884.8	1456.3	2396.9	3944.9

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	1	15	31	8	1	0	0	0	0	0	0	0	0	56
45-49	0	1	1	0	11	66	120	17	3	0	0	0	0	0	0	0	219
50-54	0	1	2	4	12	66	216	324	54	5	0	0	0	0	0	0	684
55-59	0	1	5	2	12	25	142	384	472	116	2	0	0	0	0	0	1161
60-64	0	1	0	5	12	11	39	157	491	468	123	5	0	0	0	0	1312
65-69	0	0	2	4	11	7	15	39	133	397	433	1.3	5	0	0	0	1149
70-74	0	0	0	7	5	8	12	15	31	102	314	272	68	3	0	0	837
75-79	0	0	0	0	3	6	8	6	16	28	50	166	125	40	2	0	450
80-84	0	0	0	0	0	2	7	4	9	10	12	32	57	51	15	1	200
CMA	0	4	10	23	81	222	567	947	1209	1126	934	578	255	94	17	1	6068

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
40-44	15.9	83.6	329.9	2841.8	11988.3	15971.4	2856.6	85.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34173.0
45-49	54.6	153.2	373.2	1283.2	6503.3	25247.0	34125.2	6451.8	204.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74395.6
50-54	76.3	262.0	481.1	1169.9	3063.6	14515.9	48267.8	55330.5	10600.3	326.3	0.0	0.0	0.0	0.0	0.0	0.0	134093.8
55-59	21.4	196.0	423.4	847.6	1768.8	4184.3	19276.4	59059.8	60180.5	11710.8	323.8	0.0	0.0	0.0	0.0	0.0	157992.7
60-64	0.0	69.2	297.2	499.3	992.2	1749.8	3921.8	16326.5	46302.3	42031.2	8527.7	239.4	0.0	0.0	0.0	0.0	120956.3
65-69	0.0	0.0	132.3	384.0	487.8	799.9	1294.9	2628.4	10320.5	27101.6	23305.1	5127.1	167.3	0.0	0.0	0.0	71749.0
70-74	0.0	0.0	0.0	191.7	397.5	378.6	522.8	804.4	1578.4	5393.2	13110.8	10574.4	2739.4	88.5	0.0	0.0	35779.6
75-79	0.0	0.0	0.0	0.0	169.2	310.3	242.3	306.0	419.4	795.8	2299.2	4814.0	3818.4	1132.4	40.5	0.0	14347.4
80-84	0.0	0.0	0.0	0.0	0.0	116.3	146.9	96.5	126.3	150.2	283.1	552.3	1260.1	951.9	338.6	16.5	4038.5
CMA	168.3	763.9	2037.1	7217.4	25370.6	63273.4	110654.5	141089.5	129731.8	87509.0	47849.5	21307.2	7985.3	2172.8	379.1	16.5	647525.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

177.7	232.7	284.6	243.8	189.1	187.5	229.3	315.0	459.5	695.0	1066.5	1585.5	2286.8	3036.8	3779.5	3944.9	495.2

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				-38.07	51.86	120.83	206.79										90.61
45-49			147.39		48.56	140.83	231.06	142.91	1348.80								173.79
50-54		163.22	217.27	143.44	193.23	256.21	249.04	367.11	310.95	1333.71							311.63
55-59			854.23	-90.68	351.80	270.84	410.01	323.55	457.66	663.89	291.12						408.20
60-64				463.73	671.87	91.05	456.84	424.02	522.81	575.85	904.75	1550.80					547.08
65-69				156.84	1370.04	-9.74	273.55	598.95	403.87	580.03	973.13	1124.11	2103.22				716.59
70-74				2195.87	-198.45	656.83	839.24	408.40	507.69	434.97	938.67	1115.94	1025.97				883.01
75-79					-623.48	-463.48	905.49	-436.10	1417.94	1121.81	-222.18	1051.39	876.73	1135.39			739.57
80-84										2714.33	294.10	1849.54	576.58	1412.68	485.29		1007.40
CMA		290.87	206.27	74.91	130.16	163.35	283.08	356.19	472.42	591.70	885.44	1127.22	906.58	1289.38	704.96		441.94

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				0.48	1.71	2.65	3.82										2.24
45-49			2.22		1.40	2.17	2.92	2.19	12.19								2.44
50-54		1.92	2.09	1.72	1.97	2.29	2.25	2.95	2.57	7.72							2.57
55-59			3.62	0.72	2.08	1.83	2.26	1.99	2.40	3.03	1.89						2.25
60-64				1.86	2.25	1.17	1.85	1.79	1.97	2.07	2.68	3.88					2.02
65-69				1.18	2.55	0.99	1.31	1.68	1.46	1.66	2.10	2.27	3.38				1.81
70-74				2.51	0.86	1.45	1.58	1.28	1.35	1.30	1.64	1.77	1.70				1.61
75-79					0.74	0.81	1.36	0.82	1.59	1.47	0.91	1.44	1.37	1.47			1.31
80-84										1.69	1.07	1.47	1.15	1.36	1.12		1.26
CMA		2.25	1.72	1.31	1.69	1.87	2.23	2.13	2.03	1.85	1.83	1.71	1.40	1.42	1.19		1.89

CMA=Combined ages.
CMD=Combined durations.

Comparison of Coronary Heart Disease Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

21-39 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	73.3	120.6	198.5	326.6	537.6	884.8	1456.3	2396.9	3944.9

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	17	18	4	0	0	0	0	0	0	0	0	0	39
45-49	0	0	1	1	12	62	66	17	0	0	0	0	0	0	0	0	159
50-54	0	0	0	2	9	42	134	218	46	1	0	0	0	0	0	0	452
55-59	1	0	2	2	6	14	87	221	289	81	2	0	0	0	0	0	705
60-64	0	0	0	1	5	3	24	87	283	263	70	4	0	0	0	0	740
65-69	0	0	0	1	1	4	6	12	78	197	199	52	1	0	0	0	551
70-74	0	0	0	0	1	2	5	9	17	44	105	108	36	1	0	0	328
75-79	0	0	0	0	1	2	1	3	5	10	22	46	26	12	0	0	128
80-84	0	0	0	0	0	1	2	1	1	2	2	9	11	10	2	0	41
CMA	1	0	3	7	52	148	329	568	719	598	400	219	74	23	2	0	3143

Total PYO

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
40-44	3.1	26.2	160.2	1720.0	7693.8	10580.9	2000.3	64.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22249.1
45-49	10.6	46.6	151.4	725.8	4094.9	16627.3	23137.9	4715.6	146.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49666.2
50-54	21.8	92.3	204.5	581.7	1792.3	9184.8	31882.9	36894.5	7345.4	234.4	0.0	0.0	0.0	0.0	0.0	0.0	88234.5
55-59	4.6	62.8	171.2	370.3	852.9	2408.5	12048.3	37327.9	37787.0	7906.3	208.3	0.0	0.0	0.0	0.0	0.0	99148.1
60-64	0.0	22.0	91.0	183.4	424.9	767.7	2031.0	9457.1	26549.2	23365.3	5263.6	145.2	0.0	0.0	0.0	0.0	68300.3
65-69	0.0	0.0	33.5	105.4	194.3	322.6	556.9	1240.0	5098.3	13010.6	10937.7	2664.8	77.8	0.0	0.0	0.0	34241.8
70-74	0.0	0.0	0.0	42.8	100.6	134.4	218.6	326.2	567.9	2081.1	4997.5	3800.8	1070.8	30.2	0.0	0.0	13400.8
75-79	0.0	0.0	0.0	0.0	37.5	68.4	71.2	81.3	123.6	236.8	680.3	1373.9	1070.8	316.1	7.6	0.0	4067.5
80-84	0.0	0.0	0.0	0.0	0.0	12.5	22.8	17.3	19.9	38.4	66.7	138.5	287.1	233.4	63.9	2.0	902.5
CMA	50.0	249.8	811.8	3729.5	15191.2	40107.0	71969.9	90124.6	77637.3	46872.8	22154.0	8153.2	2506.5	579.7	71.5	2.0	360210.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

170.4	232.9	252.6	188.8	153.3	162.0	213.5	299.7	435.4	649.7	981.6	1453.9	2125.4	2971.3	3780.7	3944.9	413.9

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					147.69	96.85	126.70										102.02
45-49				17.19	172.46	252.30	164.66	239.92									199.55
50-54				145.38	303.70	258.82	221.82	392.41	427.78	228.13							313.81
55-59			841.81	213.41	376.83	254.63	395.45	265.41	438.17	697.85	633.74						364.41
60-64					639.09	-146.81	644.07	382.34	528.34	587.99	792.28						545.84
65-69						355.16	192.53	82.91	645.11	629.32	934.57	1066.57					724.31
70-74							831.15	1303.02	1537.09	657.98	644.74	1362.92	1905.82				991.30
75-79										1826.98	836.83	951.21	31.13	1399.59			750.02
80-84													-113.29	339.25			598.00
CMA			116.97	-1.13	189.02	207.02	243.67	330.56	490.69	626.11	823.90	1232.13	826.89	996.50			412.77

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					3.02	2.32	2.73										2.39
45-49				1.14	2.43	3.09	2.37	2.99									2.65
50-54				1.73	2.53	2.30	2.12	2.98	3.16	2.15							2.58
55-59			3.58	1.65	2.15	1.78	2.21	1.81	2.34	3.14	2.94						2.18
60-64					2.19	0.73	2.20	1.71	1.98	2.09	2.47						2.02
65-69						1.40	1.22	1.09	1.73	1.71	2.06	2.21					1.82
70-74							1.57	1.89	2.06	1.45	1.44	1.94	2.31				1.68
75-79										1.76	1.35	1.40	1.01	1.58			1.31
80-84													0.97	1.09			1.15
CMA			1.46	0.99	2.23	2.28	2.14	2.10	2.13	1.96	1.84	1.85	1.39	1.34			2.00

CMA=Combined ages.
CMD=Combined durations.

Comparison of Coronary Heart Disease Death Ratese of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

40+ cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	73.3	120.6	198.5	326.6	537.6	884.8	1456.3	2396.9	3944.9

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	1	0	8	15	6	1	0	0	0	0	0	0	0	0	31
45-49	0	0	2	0	7	29	51	15	0	0	0	0	0	0	0	0	104
50-54	0	2	0	1	8	28	109	115	38	0	0	0	0	0	0	0	301
55-59	0	1	2	1	3	8	46	190	208	56	2	0	0	0	0	0	517
60-64	0	0	3	1	5	6	13	62	185	180	47	2	0	0	0	0	504
65-69	0	0	1	0	1	3	10	12	30	100	125	34	0	0	0	0	316
70-74	0	0	0	0	0	2	2	2	13	21	56	60	18	0	0	0	174
75-79	0	0	0	0	0	3	1	2	4	6	9	20	14	11	0	0	70
80-84	0	0	0	0	0	0	1	0	0	1	2	6	6	8	4	0	28
CMA	0	3	9	3	32	94	239	399	478	364	241	122	38	19	4	0	2045

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	11.5	20.8	123.6	878.3	3739.6	5384.8	1323.4	49.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11531.8
45-49	13.8	62.2	84.8	422.8	2256.2	8956.0	12920.9	3339.8	122.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28178.6
50-54	14.8	64.6	173.0	365.9	1007.7	5046.6	17670.1	21472.3	5376.2	187.3	0.0	0.0	0.0	0.0	0.0	0.0	51378.3
55-59	10.4	60.0	112.3	252.4	525.8	1455.3	6804.4	21049.2	21960.8	5528.8	163.3	0.0	0.0	0.0	0.0	0.0	57942.7
60-64	0.0	24.0	85.7	123.0	259.2	507.4	1233.5	5238.6	14826.3	13360.3	3459.3	111.2	0.0	0.0	0.0	0.0	39228.3
65-69	0.0	0.0	27.4	58.3	100.9	194.5	317.7	732.0	2775.1	6904.7	5780.3	1696.1	59.8	0.0	0.0	0.0	18646.7
70-74	0.0	0.0	0.0	16.9	41.1	72.8	96.2	176.4	349.3	1028.9	2461.4	2001.6	715.9	29.8	0.0	0.0	6992.3
75-79	0.0	0.0	0.0	0.0	14.0	23.4	37.5	51.3	78.3	112.9	293.5	619.0	538.8	230.4	5.8	0.0	2004.9
80-84	0.0	0.0	0.0	0.0	0.0	6.1	11.3	16.2	21.3	16.8	22.5	62.4	140.0	116.1	43.5	2.3	458.3
CMA	50.5	231.6	606.7	2117.7	7944.3	21646.8	40416.9	52125.7	45529.4	27139.7	12180.3	4490.3	1454.5	376.3	49.3	2.3	215361.9

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

175.1	234.7	264.7	194.9	156.1	165.5	212.9	296.4	427.6	625.3	936.3	1362.0	2020.8	2800.1	3764.2	3944.9	405.6

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					140.66	205.30	380.11										195.56
45-49					189.68	203.22	274.13	328.54									248.49
50-54				74.82	595.45	356.37	418.40	337.11	508.36								387.39
55-59				69.53	243.97	223.09	349.39	576.01	619.64	686.23	897.85						565.62
60-64					1391.65	644.85	516.30	645.92	710.17	809.67	821.07						747.18
65-69						657.59	2263.12	754.51	196.22	563.47	1277.71	1119.79					809.84
70-74								-322.63	2265.07	584.67	818.80	1541.32	1057.95				1032.16
75-79											669.56	834.14	201.33	2377.08			1094.54
80-84																	2164.16
CMA		1060.78	1218.81	-53.25	246.75	268.76	378.41	469.04	622.28	715.90	1042.31	1305.04	591.77	2249.71			539.60

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					2.92	3.80	6.19										3.67
45-49					2.57	2.69	3.27	3.72									3.06
50-54				1.38	4.00	2.80	3.11	2.70	3.56								2.95
55-59				1.21	1.75	1.68	2.07	2.76	2.90	3.10	3.75						2.73
60-64					3.59	2.20	1.96	2.20	2.32	2.51	2.53						2.39
65-69						1.74	3.56	1.85	1.22	1.64	2.44	2.27					1.92
70-74								0.78	2.56	1.40	1.56	2.06	1.73				1.71
75-79											1.29	1.35	1.08	1.99			1.46
80-84																	1.55
CMA		5.52	5.60	0.73	2.58	2.62	2.78	2.58	2.46	2.14	2.11	1.97	1.29	1.80			2.33

CMA=Combined ages.
CMD=Combined durations.

Comparison of Coronary Heart Disease Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

Current smokers of any number of cigarettes

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	73.3	120.6	198.5	326.6	537.6	884.8	1456.3	2396.9	3944.9

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	1	0	2	2	43	72	23	2	0	0	0	0	0	0	0	0	145
45-49	0	1	6	4	38	197	279	55	3	0	0	0	0	0	0	0	583
50-54	0	6	4	9	36	174	553	773	156	6	0	0	0	0	0	0	1717
55-59	2	4	9	13	28	66	363	1011	1213	298	6	0	0	0	0	0	3013
60-64	0	1	9	12	28	38	111	411	1221	1190	286	14	0	0	0	0	3321
65-69	0	0	4	14	18	33	50	108	364	963	1054	255	10	0	0	0	2873
70-74	0	0	0	14	24	20	31	39	107	264	731	670	172	6	0	0	2078
75-79	0	0	0	0	17	31	25	27	52	87	143	399	309	106	4	0	1200
80-84	0	0	0	0	0	6	28	14	20	29	37	89	160	136	28	1	548
CMA	3	12	34	68	232	637	1463	2440	3136	2837	2257	1427	651	248	32	1	15478

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
40-44	70.7	306.3	1109.5	7511.5	30155.5	39819.0	7427.3	249.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86649.2
45-49	204.6	608.3	1152.2	3709.5	17582.3	65235.1	87054.7	17245.7	567.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	193359.5
50-54	283.6	972.4	1666.7	3377.8	8813.7	38957.3	125546.2	142326.2	27912.5	889.7	0.0	0.0	0.0	0.0	0.0	0.0	350745.8
55-59	147.3	860.8	1517.3	2590.4	4998.8	12185.2	52086.3	152730.6	152535.9	30473.9	847.4	0.0	0.0	0.0	0.0	0.0	410973.7
60-64	0.0	373.6	1308.4	1628.2	2850.3	4907.7	11087.3	43648.0	118020.7	104549.8	21697.3	641.4	0.0	0.0	0.0	0.0	310712.5
65-69	0.0	0.0	565.7	1328.6	1518.3	2390.4	3710.8	7567.8	27687.5	68038.6	57018.8	12818.9	421.2	0.0	0.0	0.0	183066.3
70-74	0.0	0.0	0.0	674.8	1404.1	1199.9	1732.8	2484.8	4751.0	14410.2	32827.4	25806.5	6714.3	235.6	0.0	0.0	92241.3
75-79	0.0	0.0	0.0	0.0	649.4	1076.7	795.9	1004.8	1402.7	2490.8	6325.8	12247.8	9584.8	2800.8	89.1	0.0	38468.3
80-84	0.0	0.0	0.0	0.0	452.0	590.3	365.1	414.3	552.5	916.5	1711.0	3531.6	2617.2	884.3	27.4	12062.2	
CMA	706.1	3121.3	7319.7	20820.7	67972.2	166223.2	290031.3	367622.3	333291.9	221405.4	119633.2	53225.6	20251.8	5653.5	973.3	27.4	1678278.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

	190.1	246.9	307.5	266.4	208.7	200.7	237.8	320.6	465.9	703.1	1078.1	1604.0	2323.6	3074.3	3803.3	3944.9	498.5

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			107.00	-46.64	69.33	107.55	236.41	728.61									94.08
45-49		43.82	400.17	-12.75	95.54	181.40	199.91	198.34	408.21								180.93
50-54		418.56	41.54	67.99	209.99	248.18	242.01	344.66	360.43	475.95							291.06
55-59		138.07	266.54	175.21	233.50	215.00	370.28	335.31	468.58	651.24	381.39						406.49
60-64		-269.93	150.25	199.42	444.76	236.69	463.54	404.01	496.96	600.60	780.53	1645.06					531.22
65-69			-177.70	168.92	300.75	495.68	462.61	542.28	429.84	530.54	963.68	1104.42	1489.53				684.55
70-74				618.53	252.99	210.47	332.76	113.21	795.85	375.73	770.49	1139.94	1105.38	1090.56			796.48
75-79					220.85	482.38	744.15	290.35	1310.34	1096.04	-136.31	860.86	826.99	1367.82			722.57
80-84						-2617.5	798.15	-110.19	882.10	1303.93	92.16	1256.70	585.61	1251.53	-778.41		598.20
CMA	234.78	137.51	157.04	60.15	132.58	182.53	266.61	343.12	474.97	578.24	808.49	1077.00	890.97	1312.34	-515.58		423.73

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			2.46	0.36	1.95	2.47	4.23	10.94									2.28
45-49		1.36	4.32	0.89	1.79	2.50	2.66	2.64	4.39								2.50
50-54		3.11	1.21	1.34	2.06	2.25	2.22	2.74	2.82	3.40							2.47
55-59		1.42	1.82	1.54	1.71	1.66	2.13	2.03	2.43	2.99	2.17						2.24
60-64		0.50	1.28	1.37	1.83	1.44	1.86	1.75	1.92	2.12	2.45	4.06					1.99
65-69			0.80	1.19	1.34	1.56	1.52	1.61	1.49	1.60	2.09	2.25	2.68				1.77
70-74				1.42	1.17	1.14	1.23	1.08	1.55	1.26	1.53	1.78	1.76	1.75			1.55
75-79					1.09	1.20	1.31	1.12	1.55	1.46	0.94	1.36	1.35	1.58			1.30
80-84						0.34	1.20	0.97	1.22	1.33	1.02	1.32	1.15	1.32	0.80		1.15
CMA	2.24	1.56	1.51	1.23	1.64	1.91	2.12	2.07	2.02	1.82	1.75	1.67	1.38	1.43	0.86		1.85

CMA=Combined ages.
CMD=Combined durations.

Comparison of Cerebrovascular Disease Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

1-9 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	4.5	9.6	20.4	43.3	91.8	194.9	413.7	878.2	1864.2

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
45-49	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
50-54	0	0	0	0	0	2	3	4	0	0	0	0	0	0	0	0	9
55-59	0	0	0	1	0	0	4	3	5	2	0	0	0	0	0	0	15
60-64	0	0	0	0	2	2	0	6	11	11	1	0	0	0	0	0	33
65-69	0	0	0	1	0	0	0	2	6	19	16	0	0	0	0	0	44
70-74	0	0	0	2	1	3	1	2	5	9	19	8	3	0	0	0	53
75-79	0	0	0	0	1	3	1	0	8	4	14	31	19	3	0	0	84
80-84	0	0	0	0	0	2	5	0	3	2	4	4	10	8	5	0	43
CMA	0	0	0	4	4	13	16	17	38	47	54	43	32	11	5	0	284

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
40-44	22.9	104.8	235.9	668.3	1756.3	1862.2	297.9	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4958.2
45-49	62.5	194.8	302.3	511.4	1479.9	3831.6	4080.2	664.5	24.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11151.9
50-54	92.6	316.8	417.8	569.2	1095.8	3187.9	7477.6	7217.6	1134.8	35.9	0.0	0.0	0.0	0.0	0.0	0.0	21546.0
55-59	73.5	340.9	456.0	525.0	768.3	1568.3	4386.6	9656.8	8400.1	1353.1	38.9	0.0	0.0	0.0	0.0	0.0	27567.4
60-64	0.0	172.0	508.3	415.8	510.1	752.2	1481.3	3987.1	8517.9	6756.0	1170.6	34.8	0.0	0.0	0.0	0.0	24305.9
65-69	0.0	0.0	233.8	446.4	323.3	470.6	625.3	1113.8	3171.3	6200.9	4637.8	830.9	28.5	0.0	0.0	0.0	18082.6
70-74	0.0	0.0	0.0	247.1	463.3	269.9	379.6	448.4	889.7	2109.5	3814.8	2645.6	611.5	26.1	0.0	0.0	11905.3
75-79	0.0	0.0	0.0	0.0	260.3	394.0	188.6	249.8	324.6	532.8	1160.3	1838.6	1298.9	357.9	13.3	0.0	6619.0
80-84	0.0	0.0	0.0	0.0	0.0	194.3	226.8	105.3	113.7	132.3	207.3	405.5	716.1	468.0	159.8	4.0	2733.2
CMA	251.5	1129.4	2154.0	3383.1	6657.2	12531.0	19143.8	23453.2	22576.8	17120.6	11029.5	5755.3	2655.0	852.0	173.2	4.0	128869.5

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

22.9	34.8	57.8	79.7	91.3	92.5	72.4	74.9	117.5	203.0	362.4	630.8	1029.8	1405.6	1788.3	1864.2	181.2

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44						49.18											15.65
45-49							39.42										8.33
50-54						42.36	19.74	35.04									21.39
55-59				147.22			47.93	-12.19	16.27	104.55							11.16
60-64					300.27	174.06		56.67	37.32	71.00	-6.39						43.95
65-69				29.10				-15.35	-5.71	111.50	150.09						48.42
70-74				395.72	-197.66	697.73	-150.28	32.29	148.28	12.92	84.34	-111.33	76.87				31.45
75-79					-493.96	-116.79			1586.49	-127.51	326.43	807.87	584.55	-40.03			300.86
80-84						-635.01	340.09					65.87	-677.73	-467.69	-154.77	1264.09	-290.90
CMA				38.53	-31.21	11.27	11.18	-2.37	50.85	71.52	127.24	116.37	175.45	-114.49	1099.14		39.18

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44						11.87											4.46
45-49							5.11										1.87
50-54						3.06	1.97	2.72									2.05
55-59				4.40			2.11	0.72	1.38	3.42							1.26
60-64					4.27	2.90		1.64	1.41	1.77	0.93						1.48
65-69				1.15				0.92	0.97	1.57	1.77						1.25
70-74				1.96	0.52	2.69	0.64	1.08	1.36	1.03	1.20	0.73	1.19				1.08
75-79					0.44	0.87			2.81	0.85	1.37	1.92	1.67	0.95			1.45
80-84						0.55	1.18					1.04	0.53	0.75	0.92	1.68	0.84
CMA				1.48	0.66	1.12	1.15	0.97	1.43	1.35	1.35	1.18	1.17	0.92	1.61		1.22

CMA=Combined ages.
CMD=Combined durations.

Comparison of Cerebrovascular Disease Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

10-19 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	4.5	9.6	20.4	43.3	91.8	194.9	413.7	878.2	1864.2

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
45-49	0	1	0	0	0	4	3	1	0	0	0	0	0	0	0	0	9
50-54	0	0	0	0	0	2	9	5	0	0	0	0	0	0	0	0	16
55-59	0	0	0	0	1	2	5	16	16	4	0	0	0	0	0	0	44
60-64	0	0	0	1	1	2	2	7	31	31	5	0	0	0	0	0	80
65-69	0	0	0	2	1	3	1	5	16	35	43	5	0	0	0	0	111
70-74	0	0	0	1	1	2	1	4	6	23	52	38	14	0	0	0	142
75-7?	0	0	0	0	3	4	4	3	4	10	17	34	31	7	1	0	118
80-8?	0	0	0	0	0	2	1	0	8	3	7	6	13	19	8	1	68
CMA	0	1	0	4	9	22	26	41	81	106	124	83	58	26	9	1	591

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
40-44	17.3	66.8	244.1	1357.0	4857.6	5680.6	936.0	38.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13397.7
45-49	49.9	148.3	230.9	741.6	3160.6	10349.7	12504.3	2023.0	69.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29277.4
50-54	78.2	226.0	380.3	676.0	1807.8	6879.5	19801.0	20870.2	3341.1	100.7	0.0	0.0	0.0	0.0	0.0	0.0	54160.7
55-59	37.3	199.1	339.3	576.8	1064.3	2511.5	9343.5	25001.0	23516.3	3846.9	105.9	0.0	0.0	0.0	0.0	0.0	66542.0
60-64	0.0	84.4	311.7	383.8	644.1	1101.5	2362.0	8420.8	21191.9	18412.1	3158.2	106.9	0.0	0.0	0.0	0.0	56177.3
65-69	0.0	0.0	131.6	317.4	397.8	584.7	879.0	1800.5	6172.5	14368.7	11954.3	2418.4	84.8	0.0	0.0	0.0	39129.6
70-74	0.0	0.0	0.0	159.4	367.0	336.3	495.4	699.0	1313.8	3682.9	8133.3	6574.3	1520.6	56.4	0.0	0.0	23290.5
75-79	0.0	0.0	0.0	0.0	153.0	262.9	253.4	308.6	433.9	786.8	1827.3	3441.2	2766.5	713.8	18.5	0.0	11005.8
80-84	0.0	0.0	0.0	0.0	0.0	114.6	173.8	126.8	131.3	208.0	325.8	533.3	1093.7	819.5	264.5	1.7	3792.8
CMA	182.7	724.5	1637.9	4212.0	12452.2	28021.3	46748.4	59288.3	56170.0	41426.0	25504.8	13066.0	5465.5	1589.7	283.0	1.7	296773.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

20.6	31.3	48.9	51.1	44.8	41.9	44.3	58.1	96.2	175.4	321.6	553.5	935.7	1370.0	1799.7	1864.2	146.5

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					36.65												17.87
45-49						29.05	14.39	39.83									21.14
50-54						8.69	25.07	3.58									9.16
55-59					50.70	36.38	10.26	20.74	24.78	60.72							22.87
60-64				168.77	63.44	89.75	-7.15	-8.69	54.46	76.55	66.50						50.59
65-69				435.18	56.46	318.21	-61.14	82.79	64.31	48.34	164.80	11.84					88.77
70-74					-141.25	180.92	-211.87	158.52	42.95	210.78	225.62	168.54	506.97				195.97
75-79					1082.57	643.18	700.22	93.97	43.63	392.84	52.11	98.47	242.34	102.52			193.95
80-84											-421.86	284.72	-739.00	-675.51	454.32	1160.40	-71.28
CMA		106.70		43.91	27.46	36.63	11.30	11.01	47.99	80.48	164.62	81.70	125.52	265.56	1380.49		52.63

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					9.10	3.76											4.95
45-49						4.03	2.50	5.15									3.20
50-54						1.43	2.23	1.18									1.45
55-59					2.17	1.84	1.24	1.48	1.57	2.40							1.53
60-64				2.84	1.69	1.98	0.92	0.91	1.59	1.83	1.72						1.55
65-69				3.23	1.29	2.63	0.58	1.42	1.33	1.25	1.85	1.06					1.46
70-74					0.66	1.44	0.49	1.38	1.10	1.51	1.55	1.41	2.23				1.47
75-79					2.23	1.73	1.80	1.11	1.05	1.45	1.06	1.11	1.28	1.12			1.22
80-84											0.77	1.15	0.60	0.64	1.24	1.62	0.96
CMA		4.41		1.86	1.61	1.87	1.26	1.19	1.50	1.46	1.51	1.15	1.13	1.19	1.77		1.36

CMA=Combined ages.
CMD=Combined durations.

Comparison of Cerebrovascular Disease Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

20 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	4.5	9.6	20.4	43.3	91.8	194.9	413.7	878.2	1864.2

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	1	3	2	0	0	0	0	0	0	0	0	0	6
45-49	0	0	0	0	2	12	7	3	0	0	0	0	0	0	0	0	24
50-54	0	0	0	0	1	3	20	28	3	0	0	0	0	0	0	0	55
55-59	0	1	0	0	0	4	12	43	59	11	0	0	0	0	0	0	130
60-64	0	0	0	0	2	2	4	25	72	77	14	0	0	0	0	0	196
65-69	0	0	0	3	1	2	2	5	22	74	88	22	1	0	0	0	220
70-74	0	0	0	1	4	2	2	2	7	27	86	57	12	1	0	0	201
75-79	0	0	0	0	1	3	3	4	3	7	25	41	49	6	1	0	143
80-84	0	0	0	0	0	0	3	1	2	1	5	14	24	23	10	0	83
CMA	0	1	0	4	12	31	55	111	168	197	218	134	86	30	11	0	1058

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
40-44	15.9	83.6	329.9	2841.8	11988.3	15971.4	2856.6	85.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34173.0
45-49	54.6	153.2	373.2	1283.2	6503.3	25247.0	34125.2	6451.8	204.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74395.6
50-54	76.3	262.0	481.1	1169.9	3063.6	14515.9	48267.8	55330.5	10600.3	326.3	0.0	0.0	0.0	0.0	0.0	0.0	134093.8
55-59	21.4	196.0	423.4	847.6	1768.8	4184.3	19276.4	59059.8	60180.5	11710.8	323.8	0.0	0.0	0.0	0.0	0.0	157992.7
60-64	0.0	69.2	297.2	499.3	992.2	1749.8	3921.8	16326.5	46302.3	42031.2	8527.7	239.4	0.0	0.0	0.0	0.0	120956.3
65-69	0.0	0.0	132.3	384.0	487.8	799.9	1294.9	2628.4	10320.5	27101.6	23305.1	5127.1	167.3	0.0	0.0	0.0	71749.0
70-74	0.0	0.0	0.0	191.7	397.5	378.6	522.8	804.4	1578.4	5393.2	13110.8	10574.4	2739.4	88.5	0.0	0.0	36779.6
75-79	0.0	0.0	0.0	0.0	169.2	310.3	242.3	306.0	419.4	795.8	2299.2	4814.0	3818.4	1132.4	40.5	0.0	14347.4
80-84	0.0	0.0	0.0	0.0	0.0	116.3	146.9	96.5	126.3	150.2	283.1	552.3	1260.1	951.9	338.6	16.5	4038.5
CMA	168.3	763.9	2037.1	7217.4	25370.6	63273.4	110654.5	141089.5	129731.8	87509.0	47849.5	21307.2	7985.3	2172.8	379.1	16.5	647525.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

18.3	28.8	42.4	39.6	29.8	27.7	31.4	46.3	79.7	147.0	278.2	500.0	860.1	1291.2	1758.8	1864.2	108.8

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					3.82	14.26	65.49										13.04
45-49					21.15	37.93	10.91	36.90									22.66
50-54					12.26	0.29	21.06	30.23	7.92								20.64
55-59						52.34	19.00	29.55	54.78	50.67							39.03
60-64					109.76	22.48	10.18	61.31	63.68	91.36	72.35						70.22
65-69				586.34	10.08	55.12	-40.46	-4.68	18.26	78.14	162.69	234.19					111.72
70-74					592.56	114.56	-31.13	-165.10	29.76	86.91	242.23	125.31	24.32				148.05
75-79						88.49	360.18	428.98	-162.93	1.46	209.14	-26.53	405.04	-348.37			118.48
80-84											-97.91	670.91	40.46	552.01	1089.31		191.05
CMA		102.08		15.84	17.55	21.28	18.32	32.34	49.79	78.11	177.42	128.91	216.85	89.45	1142.90		54.58

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					1.84	4.15	15.48										3.88
45-49					3.20	4.95	2.14	4.84									3.36
50-54					1.60	1.01	2.03	2.48	1.39								2.01
55-59						2.21	1.44	1.68	2.27	2.17							1.90
60-64					2.20	1.24	1.11	1.67	1.69	2.00	1.79						1.76
65-69				4.01	1.05	1.28	0.79	0.98	1.09	1.40	1.94	2.20					1.57
70-74					2.43	1.28	0.92	0.60	1.07	1.21	1.59	1.30	1.06				1.36
75-79						1.10	1.41	1.49	0.81	1.00	1.24	0.97	1.46	0.60			1.13
80-84											0.95	1.36	1.02	1.30	1.58		1.10
CMA		4.54		1.40	1.59	1.77	1.58	1.70	1.62	1.53	1.64	1.26	1.25	1.07	1.65		1.50

CMA=Combined ages.
CMD=Combined durations.

Comparison of Cerebrovascular Disease Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

21-39 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	4.5	9.6	20.4	43.3	91.8	194.9	413.7	878.2	1864.2

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	1	2	3	1	0	0	0	0	0	0	0	0	0	7
45-49	0	0	0	0	3	4	10	1	0	0	0	0	0	0	0	0	18
50-54	0	0	0	0	1	5	17	22	8	0	0	0	0	0	0	0	53
55-59	0	0	0	0	1	2	8	27	37	8	1	0	0	0	0	0	84
60-64	0	1	0	0	0	0	2	11	54	50	8	0	0	0	0	0	126
65-69	0	0	0	0	0	1	0	3	12	33	49	8	0	0	0	0	106
70-74	0	0	0	1	1	1	0	0	1	15	33	26	7	0	0	0	85
75-79	0	0	0	0	0	2	2	0	2	2	5	7	16	6	0	0	42
80-84	0	0	0	0	0	0	0	1	0	0	2	3	4	3	0	0	13
CMA	0	1	0	2	8	18	40	65	114	108	98	44	27	9	0	0	534

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	3.1	26.2	160.2	1720.0	7693.8	10580.9	2000.3	64.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22249.1
45-49	20.6	46.6	151.4	725.8	4094.9	16627.3	23137.9	4715.6	146.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49666.2
50-54	21.8	92.3	201.5	531.7	1792.3	9184.8	31882.9	36894.5	7345.4	234.4	0.0	0.0	0.0	0.0	0.0	0.0	88234.5
55-59	4.6	62.8	171.2	370.3	852.9	2408.5	12048.3	37327.9	37787.0	7906.3	208.3	0.0	0.0	0.0	0.0	0.0	99148.1
60-64	0.0	22.0	91.0	183.4	424.9	767.7	2031.0	9457.1	26549.2	23365.3	5263.6	145.2	0.0	0.0	0.0	0.0	68300.3
65-69	0.0	0.0	33.5	105.4	194.3	322.6	556.9	1240.0	5098.3	13010.6	10937.7	2664.8	77.8	0.0	0.0	0.0	34241.8
70-74	0.0	0.0	0.0	42.8	100.6	134.4	218.6	326.2	567.9	2081.1	4997.5	3830.8	1070.8	30.2	0.0	0.0	13400.8
75-79	0.0	0.0	0.0	0.0	37.5	68.4	71.2	81.3	123.6	236.8	680.3	1373.9	1070.8	316.1	7.6	0.0	4067.5
80-84	0.0	0.0	0.0	0.0	0.0	12.5	22.8	17.3	19.9	38.4	66.7	138.5	287.1	233.4	63.9	2.0	902.5
CMA	50.0	249.8	811.8	3729.5	15191.2	40107.0	71969.9	90124.6	77637.3	46872.8	22154.0	8153.2	2506.5	579.7	71.5	2.0	380210.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
17.1	28.7	35.3	26.2	19.7	19.2	26.3	41.7	72.1	131.6	244.4	439.4	771.5	1251.1	1759.6	1864.2	80.0

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				53.62	21.47	23.83	45.47										26.94
45-49					63.66	14.46	33.62	11.61									26.64
50-54					35.42	34.06	32.94	39.25	88.53								39.69
55-59					73.99	39.78	23.14	29.08	54.66	57.93	436.94						41.47
60-64							6.65	24.49	111.58	122.17	60.17						92.66
65-69						115.09		47.03	40.47	58.73	253.09	105.31					114.66
70-74									-237.64	307.05	246.61	264.98	240.02				220.56
75-79										-33.44	-143.28	-368.72	615.95	1020.02			154.36
80-84													-470.85	-578.92			-423.73
CMA		371.52		27.42	32.98	25.65	29.28	30.39	74.74	98.81	198.00	100.28	305.70	301.56			60.47

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				12.86	5.75	6.27	11.05										6.96
45-49					7.63	2.51	4.50	2.21									3.78
50-54					2.74	2.67	2.62	2.93	5.34								2.95
55-59					2.71	1.92	1.54	1.67	2.26	2.34	11.10						1.96
60-64							1.07	1.27	2.22	2.33	1.66						2.01
65-69						1.59		1.24	1.21	1.30	2.30	1.54					1.59
70-74									0.43	1.74	1.60	1.64	1.58				1.53
75-79										0.96	0.84	0.58	1.70	2.16			1.18
80-84													0.75	0.69			0.77
CMA		13.92		2.05	2.68	2.33	2.11	1.73	2.04	1.75	1.81	1.23	1.40	1.24			1.76

CMA=Combined ages.
CMD=Combined durations.

Comparison of Cerebrovascular Disease Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

40+ cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	4.5	9.6	20.4	43.3	91.8	194.9	413.7	878.2	1864.2

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
45-49	0	0	0	0	0	3	4	1	0	0	0	0	0	0	0	0	8
50-54	0	1	0	0	0	3	10	16	3	0	0	0	0	0	0	0	33
55-59	0	0	0	0	0	2	8	24	30	5	1	0	0	0	0	0	70
60-64	0	0	0	0	0	0	0	7	25	42	5	0	0	0	0	0	79
65-69	0	0	0	1	0	1	1	4	5	22	21	7	0	0	0	0	62
70-74	0	0	0	0	0	0	0	2	4	6	12	16	5	0	0	0	45
75-79	0	0	0	0	0	1	0	1	0	0	3	9	8	2	0	0	24
80-84	0	0	0	0	0	1	1	0	0	1	1	1	7	1	0	0	13
CMA	0	1	0	1	0	12	25	55	67	76	43	33	20	3	0	0	336

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
40-44	11.5	20.8	123.6	878.3	3739.6	5384.8	1323.4	49.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11531.8
45-49	13.8	62.2	84.8	422.8	2256.2	8956.0	12900.0	3339.8	122.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28178.6
50-54	14.8	64.6	173.0	365.9	1007.7	5046.6	17670.1	21472.3	5376.2	187.3	0.0	0.0	0.0	0.0	0.0	0.0	51378.3
55-59	10.4	60.0	112.3	252.4	525.8	1455.3	6804.4	21049.2	21980.8	5528.8	163.3	0.0	0.0	0.0	0.0	0.0	57942.7
60-64	0.0	24.0	85.7	123.0	259.2	507.4	1233.5	5238.6	14826.3	13360.3	3459.3	111.2	0.0	0.0	0.0	0.0	39228.3
65-69	0.0	0.0	27.4	58.3	100.9	194.5	317.7	732.0	2775.1	6904.7	5780.3	1696.1	59.8	0.0	0.0	0.0	18646.7
70-74	0.0	0.0	0.0	16.9	41.1	72.8	98.2	176.4	349.3	1028.9	2461.4	2001.6	715.9	29.8	0.0	0.0	6992.3
75-79	0.0	0.0	0.0	0.0	14.0	23.4	37.5	51.3	78.3	112.9	293.5	619.0	538.8	230.4	5.8	0.0	2004.9
80-84	0.0	0.0	0.0	0.0	0.0	6.1	11.3	16.2	21.3	16.8	22.5	62.4	140.0	116.1	43.5	2.3	458.3
CMA	50.5	231.6	606.7	2117.7	7944.3	21646.8	40416.9	52125.7	45529.4	27139.7	12180.3	4490.3	1454.5	376.3	49.3	2.3	216361.9

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

18.5	29.4	37.9	26.5	19.5	19.5	26.1	41.3	70.6	124.2	227.4	407.3	716.4	1145.7	1749.1	1864.2	76.8

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44						14.05	71.04										12.82
45-49						23.90	21.36	20.34									18.79
50-54						39.07	36.21	54.14	35.42								43.85
55-59						94.18	74.31	70.76	93.23	47.18							77.55
60-64								41.80	76.80	222.55	52.72						109.56
65-69							119.89	351.54	-14.73	123.72	168.40	217.81					137.59
70-74								719.95	731.31	169.41	73.80	385.64	284.68				229.84
75-79												143.94	575.75	606.48	-10.22		318.85
80-84																	972.19
CMA		402.42		20.75		35.91	35.77	64.22	76.51	155.80	125.67	327.63	658.62	-348.34			76.48

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44						4.11	16.71										3.83
45-49						3.49	3.22	3.12									2.96
50-54						2.92	2.78	3.66	2.74								3.15
55-59						3.18	2.72	2.64	3.16	2.09							2.79
60-64								1.46	1.84	3.42	1.57						2.19
65-69							1.62	2.80	0.92	1.63	1.86	2.12					1.71
70-74								2.74	2.77	1.41	1.18	1.93	1.69				1.56
75-79												1.16	1.66	1.69	0.99		1.36
80-84																	1.52
CMA		14.69		1.78		2.84	2.37	2.56	2.08	2.25	1.55	1.80	1.92	0.70			2.02

CMA=Combined ages.
CMD=Combined durations.

Comparison of Cerebrovascular Disease Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84
Current smokers of any number of cigarettes

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	4.5	9.6	20.4	43.3	91.8	194.9	413.7	878.2	1864.2

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	1	5	9	4	0	0	0	0	0	0	0	0	0	19
45-49	0	1	0	0	5	23	26	6	0	0	0	0	0	0	0	0	61
50-54	0	1	0	0	2	15	59	76	15	0	0	0	0	0	0	0	168
55-59	0	1	0	1	2	10	37	114	148	31	2	0	0	0	0	0	346
60-64	0	1	0	1	5	6	8	56	194	214	33	0	0	0	0	0	518
65-69	0	0	0	7	2	7	4	19	64	183	217	43	1	0	0	0	547
70-74	0	0	0	5	7	9	4	10	23	80	203	147	41	2	0	0	531
75-7	0	0	0	0	5	13	10	8	17	23	67	122	123	24	3	0	415
80-84	0	0	0	0	0	5	11	2	13	7	20	28	59	55	23	1	224
CMA	0	4	0	15	33	97	163	291	474	538	542	340	224	81	26	1	2829

Total PYO

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
40-44	70.7	306.3	1109.5	7511.5	30155.5	39819.0	7427.3	249.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86649.2
45-49	204.6	606.3	1152.2	3709.5	17582.3	65235.1	87054.7	17245.7	567.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	193359.5
50-54	283.6	972.4	1666.7	3377.8	8813.7	38957.3	125546.2	142326.2	27912.5	869.7	0.0	0.0	0.0	0.0	0.0	0.0	350745.8
55-59	147.3	860.8	1517.3	2590.4	4998.8	12185.2	52066.3	152730.6	152535.9	30473.9	847.4	0.0	0.0	0.0	0.0	0.0	410973.7
60-64	0.0	373.6	1308.4	1628.2	2850.3	4907.7	11087.3	43648.0	118020.7	104549.8	21697.3	641.4	0.0	0.0	0.0	0.0	310712.5
65-69	0.0	0.0	565.7	1328.6	1518.3	2390.4	3710.8	7567.8	27687.5	68038.6	57016.8	12818.9	421.2	0.0	0.0	0.0	183066.3
70-74	0.0	0.0	0.0	674.8	1404.1	1199.9	1732.8	2484.8	4751.0	14410.2	32827.4	25176.5	6714.3	235.6	0.0	0.0	92241.3
75-79	0.0	0.0	0.0	0.0	649.4	1076.7	795.9	1004.8	1402.7	2490.8	6325.8	12147.8	9584.8	2800.8	89.1	0.0	38468.3
80-84	0.0	0.0	0.0	0.0	0.0	452.0	590.3	365.1	414.3	552.5	916.5	1711.0	3531.6	2617.2	884.3	27.4	12062.2
CMA	706.1	3121.3	7319.7	20820.7	67972.2	166223.2	290031.3	367622.3	333291.9	221405.4	119633.2	53225.6	20251.8	5653.5	973.3	27.4	1678278.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

20.4	31.6	47.3	45.1	35.5	32.1	34.3	48.3	82.1	150.7	284.1	510.7	881.9	1315.3	1773.9	1864.2	110.7

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				8.79	12.06	18.08	49.33										17.40
45-49		154.81			18.84	25.66	20.27	25.19									21.95
50-54		82.46			2.31	18.13	26.62	33.02	33.36								27.52
55-59		72.92		-4.65	-3.25	38.81	27.76	31.38	53.77	58.47	192.76						40.93
60-64		175.86		-30.40	83.60	30.44	-19.67	36.48	72.56	112.87	60.27						74.89
65-69				331.97	-63.18	97.93	-87.11	56.16	36.25	74.06	185.67	140.54	42.53				103.89
70-74				327.29	84.82	336.33	-182.88	-11.28	70.38	141.44	204.66	155.90	196.91	435.23			161.94
75-79				-108.29		329.22	378.20	-81.99	333.77	45.21	180.94	117.89	405.08	-21.30			200.60
80-84						-757.98	-0.82	-1316.3	1273.40	-597.20	318.04	-227.70	-193.53	237.34	736.90		-7.12
CMA		96.57		26.99	13.10	26.30	21.93	30.88	60.08	92.25	168.95	128.14	224.13	117.46	897.30		57.85

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				2.94	3.67	5.00	11.91										4.85
45-49		17.13			2.96	3.67	3.11	3.62									3.29
50-54		5.05			1.11	1.89	2.31	2.62	2.64								2.35
55-59		2.69		0.89	0.92	1.90	1.64	1.73	2.24	2.35	5.46						1.95
60-64		2.92		0.67	1.91	1.33	0.79	1.40	1.79	2.23	1.66						1.82
65-69				2.70	0.68	1.50	0.55	1.29	1.19	1.38	1.95	1.72	1.22				1.53
70-74				1.79	1.21	1.81	0.56	0.97	1.17	1.34	1.49	1.38	1.48	2.05			1.39
75-79				0.88		1.37	1.43	0.91	1.38	1.05	1.21	1.13	1.46	0.98			1.23
80-84						0.59	1.00	0.29	1.68	0.68	1.17	0.88	0.90	1.13	1.40		1.00
CMA		4.06		1.60	1.37	1.82	1.64	1.64	1.73	1.61	1.59	1.25	1.25	1.09	1.51		1.52

CMA=Combined ages.
CMD=Combined durations.

Comparison of COPD Death Rates of Current Smokers
and Neversmokers for White Males Aged Between 40 and 84
1-9 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.7	1.3	2.2	3.9	6.7	11.7	20.4	35.5	61.8

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	1	1	1	5	1	0	0	0	0	0	0	9
60-64	0	0	0	0	0	0	0	2	4	6	3	0	0	0	0	0	15
65-69	0	0	0	0	0	0	0	0	2	6	8	4	0	0	0	0	20
70-74	0	0	0	0	0	0	1	0	1	5	15	8	2	0	0	0	32
75-79	0	0	0	0	0	1	0	0	0	1	0	6	2	4	0	0	14
80-84	0	0	0	0	0	0	1	4	0	0	2	7	2	1	0	17
CMA	0	0	0	0	0	2	2	4	16	19	26	20	11	6	1	0	107

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
40-44	22.9	104.8	235.9	668.3	1756.3	1862.2	297.9	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4958.2
45-49	62.5	194.8	302.3	511.4	1479.9	3831.6	4080.2	664.5	24.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11151.9
50-54	92.6	316.8	417.8	569.2	1095.8	3187.9	7477.6	7217.6	1134.8	35.9	0.0	0.0	0.0	0.0	0.0	0.0	21546.0
55-59	73.5	340.9	456.0	525.0	768.3	1568.3	4386.6	9656.8	8400.1	1353.1	38.9	0.0	0.0	0.0	0.0	0.0	27567.4
60-64	0.0	172.0	508.3	415.8	510.1	752.2	1481.3	3987.1	8517.9	6756.0	1170.6	34.8	0.0	0.0	0.0	0.0	24305.9
65-69	0.0	0.0	233.8	446.4	323.3	470.6	625.3	1113.8	3171.3	6200.9	4637.8	800.9	28.5	0.0	0.0	0.0	18082.6
70-74	0.0	0.0	0.0	247.1	463.3	269.9	379.6	448.4	889.7	2109.5	3814.8	2645.6	611.5	26.1	0.0	0.0	11905.3
75-79	0.0	0.0	0.0	0.0	260.3	394.0	188.6	249.8	324.6	532.8	1160.3	1838.6	1298.9	357.9	13.3	0.0	6619.0
80-84	0.0	0.0	0.0	0.0	0.0	194.3	226.8	106.3	113.7	132.3	207.3	405.5	716.1	468.0	159.8	4.0	2733.2
CMA	251.5	1129.4	2154.0	3383.1	6657.2	12531.0	19143.8	23453.2	22576.8	17120.6	11029.5	5755.3	2655.0	852.0	173.2	4.0	126869.5

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

2.3	3.1	4.4	5.2	5.2	4.9	4.4	5.1	7.4	11.3	17.6	26.8	38.8	49.5	59.8	61.8	9.3

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49																	
50-54																	
55-59						59.90	18.93	6.49	55.66	70.04							28.78
60-64								43.43	40.23	82.06	249.55						54.96
65-69									51.35	85.05	160.78	489.68					96.89
70-74							243.06		92.01	216.63	372.82	282.00	306.68				248.40
75-79						218.32				152.19		290.85	118.48	1082.09			176.02
80-84												431.44	915.76	365.57			560.21
CMA						11.06	6.02	12.00	63.51	99.68	218.13	320.71	375.47	654.76			73.76

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49																	
50-54																	
55-59						16.49	5.90	2.68	15.40	19.12							8.45
60-64								7.45	6.98	13.20	38.09						9.17
65-69									5.38	8.26	14.73	41.10					9.44
70-74							12.92		5.51	11.63	19.29	14.83	16.04				13.18
75-79						7.15				5.29		9.20	4.34	31.49			5.96
80-84												7.98	15.82	6.92			10.07
CMA						3.25	2.36	3.37	9.63	9.82	13.39	12.97	10.67	14.24			8.96

CMA=Combined ages.
CMD=Combined durations.

Comparison of COPD Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

10-19 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.7	1.3	2.2	3.9	6.7	11.7	20.4	35.5	61.8

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
45-49	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
50-54	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	4
55-59	0	0	0	0	0	0	0	4	5	0	0	0	0	0	0	0	9
60-64	0	0	0	0	0	0	2	2	12	15	3	0	0	0	0	0	34
65-69	0	0	0	0	0	0	2	2	6	14	20	8	0	0	0	0	52
70-74	0	0	0	0	1	0	0	1	1	5	19	16	8	0	0	0	51
75-79	0	0	0	0	0	1	1	1	3	1	8	20	14	3	0	0	52
80-84	0	0	0	0	0	1	0	1	0	2	1	3	7	7	1	0	23
CMA	0	0	0	0	1	4	7	14	27	37	51	47	29	10	1	0	228

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
40-44	17.3	66.8	244.1	1357.0	4857.6	5680.6	906.0	38.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13397.7
45-49	49.9	148.3	230.9	741.6	3160.6	10349.7	12504.3	2023.0	69.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29277.4
50-54	78.2	226.0	360.3	676.0	1807.8	6879.5	19801.0	20870.2	3341.1	100.7	0.0	0.0	0.0	0.0	0.0	0.0	54160.7
55-59	37.3	199.1	339.3	576.8	1064.3	2511.5	9343.5	25001.0	23516.3	3846.9	105.9	0.0	0.0	0.0	0.0	0.0	66542.0
60-64	0.0	84.4	311.7	383.8	644.1	1101.5	2362.0	8420.8	21191.9	18412.1	3158.2	106.9	0.0	0.0	0.0	0.0	56177.3
65-69	0.0	0.0	131.6	317.4	397.8	584.7	879.0	1800.5	6172.5	14388.7	11954.3	2418.4	84.8	0.0	0.0	0.0	39129.6
70-74	0.0	0.0	0.0	159.4	367.0	336.3	495.4	699.0	1313.8	3682.9	8133.3	6521.3	1520.6	56.4	0.0	0.0	23290.5
75-79	0.0	0.0	0.0	0.0	153.0	262.9	253.4	308.6	433.9	786.8	1827.3	348.2	2766.5	713.8	18.5	0.0	11005.8
80-84	0.0	0.0	0.0	0.0	0.0	114.6	173.8	126.8	131.3	208.0	325.8	533.3	1093.7	819.5	264.5	1.7	3792.8
CMA	182.7	724.5	1637.9	4212.0	12452.2	28021.3	46748.4	59288.3	56170.0	41426.0	25504.8	13066.0	5465.5	1589.7	283.0	1.7	296773.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

2.2	2.9	3.8	3.6	3.0	2.9	3.3	4.3	6.5	10.2	16.2	24.4	36.2	48.5	60.1	61.8	8.0

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44						16.27											6.73
45-49						8.39	6.72										5.56
50-54							2.83	12.15									5.16
55-59								12.13	17.40								9.66
60-64							77.95	17.02	49.90	74.74	88.26						53.79
65-69							215.82	99.37	85.49	85.59	155.59	319.08					121.18
70-74					252.09			122.67	55.72	115.37	213.22	224.77	505.73				198.58
75-79						344.86	359.12	288.57	655.89	91.61	402.31	539.03	470.56	384.82			436.99
80-84										899.76	245.21	500.81	576.27	792.40	316.29		544.64
CMA					5.01	11.42	11.71	19.29	41.59	79.10	183.79	335.33	494.42	580.56	293.30		68.87

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44						23.20											10.18
45-49						7.57	6.27										5.35
50-54							2.27	6.47									3.33
55-59								4.14	5.50								3.50
60-64							12.56	3.53	8.42	12.11	14.12						8.99
65-69							19.43	9.48	8.30	8.31	14.28	28.24					11.35
70-74					13.36			7.02	3.73	6.66	11.46	12.02	25.80				10.74
75-79						10.72	11.12	9.13	19.48	3.58	12.34	16.19	14.26	11.84			13.31
80-84										15.56	4.97	9.11	10.36	13.83	6.12		9.82
CMA					2.66	5.00	4.58	5.46	7.43	8.74	12.36	14.75	14.67	12.97	5.88		9.66

CMA=Combined ages.
CMD=Combined durations.

Comparison of COPD Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

20 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.7	1.3	2.2	3.9	6.7	11.7	20.4	35.5	61.8

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
50-54	0	0	0	0	0	1	5	7	2	0	0	0	0	0	0	0	15
55-59	0	0	1	1	0	0	0	18	28	7	1	0	0	0	0	0	56
60-64	0	0	1	1	0	1	1	10	37	55	15	3	0	0	0	0	124
65-69	0	0	0	0	0	0	1	3	19	43	30	7	3	0	0	0	106
70-74	0	0	0	0	3	0	0	1	2	20	44	39	8	2	0	0	119
75-79	0	0	0	0	0	0	1	1	3	3	14	27	24	10	1	0	84
80-84	0	0	0	0	0	0	0	0	1	1	0	4	18	5	2	0	31
CMA	0	0	2	2	3	4	8	40	92	129	104	80	53	17	3	0	537

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	15.9	83.6	329.9	2841.8	11988.3	15971.4	2856.6	85.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34173.0
45-49	54.6	153.2	373.2	1283.2	6503.3	25247.0	34125.2	6451.8	204.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74395.6
50-54	76.3	262.0	481.1	1169.9	3063.6	14515.9	48267.8	55330.5	10600.3	326.3	0.0	0.0	0.0	0.0	0.0	0.0	134093.8
55-59	21.4	196.0	423.4	647.6	1768.8	4184.3	19276.8	59059.8	60180.5	11710.8	323.8	0.0	0.0	0.0	0.0	0.0	157992.7
60-64	0.0	69.2	297.2	499.3	992.2	1749.8	3921.8	16326.5	46302.3	42031.2	8527.7	239.4	0.0	0.0	0.0	0.0	120956.3
65-69	0.0	0.0	132.3	384.0	487.8	799.9	1294.9	2628.4	10320.5	27101.6	23305.1	5127.1	167.3	0.0	0.0	0.0	71749.0
70-74	0.0	0.0	0.0	191.7	397.5	378.6	522.8	804.4	1578.4	5393.2	13110.8	10574.4	2739.4	88.5	0.0	0.0	35779.6
75-79	0.0	0.0	0.0	0.0	169.2	310.3	242.3	306.0	419.4	795.8	2299.2	4814.0	3818.4	1132.4	40.5	0.0	14347.4
80-84	0.0	0.0	0.0	0.0	0.0	116.3	146.9	96.5	126.3	150.2	283.1	552.3	1260.1	951.9	338.6	16.5	4038.6
CMA	168.3	763.9	2037.1	7217.4	25370.6	63273.4	110654.5	141069.5	129731.8	87509.0	47649.5	21307.2	7965.3	2172.8	379.1	16.5	647525.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

2.0	2.7	3.4	3.0	2.3	2.2	2.7	3.8	5.7	9.1	14.6	22.6	34.0	46.4	59.0	61.8	6.4

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49						6.65											1.41
50-54						4.67	8.14	10.43	16.65								8.97
55-59			232.31	114.12			26.61	42.66	55.91	305.01							31.58
60-64			329.78	193.54		50.42	18.77	54.52	73.18	124.13	169.17	1246.32					95.79
65-69							65.51	102.42	172.39	146.95	117.01	124.82	1781.12				136.02
70-74					734.33			103.92	106.32	350.45	315.21	348.43	271.64				312.20
75-79							377.31	291.31	679.79	341.51	573.43	525.37	593.04	847.58			549.98
80-84												662.53	1366.70	463.48	528.92		705.83
CMA			94.76	24.75	9.57	4.12	4.54	24.57	65.18	138.34	202.76	352.83	629.76	736.00	732.41		76.49

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49						6.21											2.11
50-54						3.10	4.66	5.70	8.50								5.04
55-59			61.09	30.52				7.88	12.04	15.46	79.90						9.17
60-64			50.01	29.76		8.49	3.79	9.10	11.88	19.45	26.14	186.22					15.24
65-69							6.59	9.74	15.72	13.55	10.99	11.66	153.06				12.61
70-74					37.02			6.10	6.21	18.19	16.46	18.09	14.32				16.31
75-79							11.63	9.21	20.15	10.62	17.16	15.80	17.71	24.88			16.50
80-84												11.72	23.12	8.50	9.56		12.43
CMA			28.68	9.36	5.24	2.87	2.69	7.50	12.37	16.25	14.90	16.59	19.54	16.86	13.42		12.87

CMA=Combined ages.
CMD=Combined durations.

Comparison of COPD Death Rates of Current Smokers
and Neversmokers for White Males Aged Between 40 and 84
21-39 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.7	1.3	2.2	3.9	6.7	11.7	20.4	35.5	61.8

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
45-49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	2	4	3	1	0	0	0	0	0	0	0	10
55-59	0	0	0	0	0	2	1	9	12	4	0	0	0	0	0	0	28
60-64	0	0	0	0	0	0	2	9	24	34	11	0	0	0	0	0	80
65-69	0	0	0	0	0	1	0	1	10	31	31	10	1	0	0	0	85
70-74	0	0	0	0	0	0	0	1	0	9	18	19	8	0	0	0	55
75-79	0	0	0	0	0	0	0	0	0	0	8	8	8	3	0	0	27
80-84	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	4
CMA	0	0	0	0	1	5	7	23	47	78	68	37	18	5	1	0	290

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
40-44	3.1	26.2	160.2	1720.0	7693.8	10580.9	2000.3	64.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22249.1
45-49	20.6	46.6	151.4	725.8	4094.9	16627.3	23137.9	4715.6	146.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49666.2
50-54	21.8	92.3	204.5	581.7	1792.3	9184.8	31882.9	36894.5	7345.4	234.4	0.0	0.0	0.0	0.0	0.0	0.0	88234.5
55-59	4.6	62.8	171.2	370.3	852.9	2408.5	12048.3	37327.9	37787.0	7906.3	208.3	0.0	0.0	0.0	0.0	0.0	99148.1
60-64	0.0	22.0	91.0	183.4	424.9	767.7	2031.0	9457.1	26549.2	23365.3	5263.6	145.2	0.0	0.0	0.0	0.0	68300.3
65-69	0.0	0.0	33.5	105.4	194.3	322.6	556.9	1240.0	5098.3	13010.6	10937.7	2664.8	77.8	0.0	0.0	0.0	34241.8
70-74	0.0	0.0	0.0	42.8	100.6	134.4	218.6	326.2	567.9	2081.1	4997.5	3830.8	1070.8	30.2	0.0	0.0	13400.8
75-79	0.0	0.0	0.0	0.0	37.5	68.4	71.2	81.3	123.6	236.8	680.3	1373.9	1070.8	316.1	7.6	0.0	4067.5
80-84	0.0	0.0	0.0	0.0	0.0	12.5	22.8	17.3	19.9	38.4	66.7	138.5	287.1	233.4	63.9	2.0	902.5
CMA	50.0	249.8	811.8	3729.5	15191.2	40107.0	71969.9	90124.6	77637.3	46872.8	22154.0	8153.2	2506.5	579.7	71.5	2.0	380210.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
1.9	2.7	3.0	2.2	1.8	1.8	2.5	3.6	5.4	8.4	13.3	20.6	31.3	45.3	59.0	61.8	5.2

Comparison of COPD Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

21-39 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.7	1.3	2.2	3.9	6.7	11.7	20.4	35.5	61.8

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
45-49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	2	4	3	1	0	0	0	0	0	0	0	10
55-59	0	0	0	0	0	2	1	9	12	4	0	0	0	0	0	0	28
60-64	0	0	0	0	0	0	2	9	24	34	11	0	0	0	0	0	80
65-69	0	0	0	0	0	1	0	1	10	31	31	10	1	0	0	0	85
70-74	0	0	0	0	0	0	0	1	0	9	18	19	8	0	0	0	55
75-79	0	0	0	0	0	0	0	0	0	0	8	8	8	3	0	0	27
80-84	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	4
CMA	0	0	0	0	1	5	7	23	47	78	68	37	18	5	1	0	290

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
40-44	3.1	26.2	160.2	1720.0	7693.8	10580.9	2000.3	64.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22249.1
45-49	20.6	46.6	151.4	725.8	4094.9	16627.3	23137.9	4715.6	146.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49666.2
50-54	21.8	92.3	204.5	581.7	1792.3	9184.8	31882.9	36894.5	7345.4	234.4	0.0	0.0	0.0	0.0	0.0	0.0	88234.5
55-59	4.6	62.8	171.2	370.3	852.9	2408.5	12048.3	37327.9	37787.0	7906.3	208.3	0.0	0.0	0.0	0.0	0.0	99148.1
60-64	0.0	22.0	91.0	183.4	424.9	767.7	2031.0	9457.1	26549.2	23365.3	5263.6	145.2	0.0	0.0	0.0	0.0	68300.3
65-69	0.0	0.0	33.5	105.4	194.3	322.6	556.9	1240.0	5098.3	13010.6	10937.7	2664.8	77.8	0.0	0.0	0.0	34241.8
70-74	0.0	0.0	0.0	42.8	100.6	134.4	218.6	326.2	567.9	2081.1	4997.5	3830.8	1070.8	30.2	0.0	0.0	13400.8
75-79	0.0	0.0	0.0	0.0	37.5	68.4	71.2	81.3	123.6	236.8	680.3	1373.9	1070.8	316.1	7.6	0.0	4067.5
80-84	0.0	0.0	0.0	0.0	0.0	12.5	22.8	17.3	19.9	38.4	66.7	138.5	287.1	233.4	63.9	2.0	902.5
CMA	50.0	249.8	811.8	3729.5	15191.2	40107.0	71969.9	90124.6	77637.3	46872.8	22154.0	8153.2	2506.5	579.7	71.5	2.0	380210.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

1.9	2.7	3.0	2.2	1.8	1.8	2.5	3.6	5.4	8.4	13.3	20.6	31.3	45.3	59.0	61.8	5.2

Comparison of COPD Death Rates of Current Smokers
and Neversmokers for White Males Aged Between 40 and 84
40+ cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.7	1.3	2.2	3.9	6.7	11.7	20.4	35.5	61.8

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	5	1	2	0	0	0	0	0	0	0	8
55-59	0	0	0	0	0	0	0	14	17	6	1	0	0	0	0	0	38
60-64	0	0	0	0	0	0	1	4	17	17	7	0	0	0	0	0	46
65-69	0	0	0	0	0	0	0	0	5	14	17	2	1	0	0	0	39
70-74	0	0	0	0	0	0	0	0	0	3	15	9	5	0	0	0	32
75-79	0	0	0	0	0	0	0	1	1	0	4	7	5	2	0	0	20
80-84	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	3
CMA	0	0	0	0	0	0	6	20	43	40	44	19	11	3	0	0	186

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
40-44	11.5	20.8	123.6	878.3	3739.6	5384.8	1323.4	49.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11531.8
45-49	13.8	62.2	84.8	422.8	2256.2	8956.0	12920.9	3339.8	122.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28178.6
50-54	14.8	64.6	173.0	365.9	1007.7	5046.6	17670.1	21472.3	5376.2	187.3	0.0	0.0	0.0	0.0	0.0	0.0	51378.3
55-59	10.4	60.0	112.3	252.4	525.8	1455.3	6804.4	21049.2	21980.8	5528.8	163.3	0.0	0.0	0.0	0.0	0.0	57942.7
60-64	0.0	24.0	85.7	123.0	259.2	507.4	1233.5	5238.6	14826.3	13360.3	3459.3	111.2	0.0	0.0	0.0	0.0	39228.3
65-69	0.0	0.0	27.4	58.3	100.9	194.5	317.7	732.0	2775.1	6904.7	5780.3	1696.1	59.8	0.0	0.0	0.0	18646.7
70-74	0.0	0.0	0.0	16.9	41.1	72.8	98.2	176.4	349.3	1028.9	2461.4	2001.6	715.9	29.8	0.0	0.0	6992.3
75-79	0.0	0.0	0.0	0.0	14.0	23.4	37.5	51.3	78.3	112.9	293.5	619.0	538.8	230.4	5.8	0.0	2004.9
80-84	0.0	0.0	0.0	0.0	0.0	6.1	11.3	16.2	21.3	16.8	22.5	62.4	140.0	116.1	43.5	2.3	458.3
CMA	50.5	231.6	606.7	2117.7	7944.3	21646.8	40416.9	52125.7	45529.4	27139.7	12180.3	4490.3	1454.5	376.3	49.3	2.3	216361.9

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

2.0	2.7	3.2	2.3	1.8	1.9	2.5	3.5	5.3	8.1	12.6	19.4	29.6	42.4	58.7	61.8	5.1

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49																	
50-54							26.08	2.44	34.98								13.35
55-59								62.65	73.47	104.66							61.72
60-64							74.34	69.63	107.93	120.51	195.63						110.53
65-69									168.46	191.05	282.39	106.21					197.44
70-74										271.18	589.02	429.26	678.02				437.26
75-79											1327.37	1095.37	892.44	832.50			962.06
80-84																	592.77
CMA							12.39	34.85	89.16	139.33	348.63	403.71	726.66	754.94			80.85

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49																	
50-54							12.74	2.10	16.75								7.01
55-59								17.21	20.01	28.07							16.97
60-64							12.05	11.35	17.04	18.91	30.07						17.43
65-69									15.38	17.31	25.11	10.07					17.86
70-74										14.30	29.89	22.05	34.25				22.45
75-79											38.40	31.86	26.15	24.46			28.11
80-84																	10.60
CMA							6.06	10.89	17.88	18.30	28.65	21.78	25.54	18.80			16.80

CMA=Combined ages.
CMD=Combined durations.

Comparison of COPD Death Rates of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

Current smokers of any number of cigarettes

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.7	1.3	2.2	3.9	6.7	11.7	20.4	35.5	61.8

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMO
40-44	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
45-49	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	4
50-54	0	0	0	0	0	3	15	14	5	0	0	0	0	0	0	0	37
55-59	0	0	1	1	0	3	2	46	67	19	2	0	0	0	0	0	141
60-64	0	0	1	1	0	1	6	27	94	127	39	3	0	0	0	0	299
65-69	0	0	0	0	0	1	3	6	44	109	107	31	5	0	0	0	306
70-74	0	0	0	0	4	0	1	3	5	42	112	92	31	2	0	0	292
75-7	0	0	0	0	0	2	2	3	7	5	34	68	53	22	1	0	197
80-8-	0	0	0	0	0	1	0	2	6	3	1	10	33	18	5	0	79
CMA	0	0	2	2	5	15	30	101	228	305	295	204	122	42	6	0	1357

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMO
40-44	70.7	306.3	1109.5	7511.5	30155.5	39819.0	7427.3	249.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86649.2
45-49	204.6	608.3	1152.2	3709.5	17582.3	65235.1	87054.7	17245.7	567.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	193359.5
50-54	283.6	972.4	1666.7	3377.8	8813.7	38957.3	125546.2	142326.2	27912.5	889.7	0.0	0.0	0.0	0.0	0.0	0.0	350745.8
55-59	147.3	860.8	1517.3	2590.4	4998.8	12185.2	52066.3	152730.6	152535.9	30473.9	847.4	0.0	0.0	0.0	0.0	0.0	410973.7
60-64	0.0	373.6	1308.4	1628.2	2850.3	4907.7	11087.3	43648.0	118020.7	104549.8	21697.3	641.4	0.0	0.0	0.0	0.0	310712.5
65-69	0.0	0.0	565.7	1328.6	1518.3	2390.4	3710.8	7567.8	27687.5	68038.6	57018.8	12818.9	421.2	0.0	0.0	0.0	183066.3
70-74	0.0	0.0	0.0	674.8	1404.1	1199.9	1732.8	2484.8	4751.0	14410.2	32827.4	25806.5	6714.3	235.6	0.0	0.0	92241.3
75-79	0.0	0.0	0.0	0.0	649.4	1076.7	795.9	1004.8	1402.7	2490.8	6325.8	122.-7.8	9584.8	2800.8	89.1	0.0	38468.3
80-84	0.0	0.0	0.0	0.0	0.0	452.0	590.3	365.1	414.3	552.5	916.5	1711.0	3531.6	2617.2	884.3	27.4	12062.2
CMA	706.1	3121.3	7319.7	20820.7	67972.2	166223.2	290031.3	367622.3	333291.9	221405.4	119633.2	53225.6	20251.8	5653.5	973.3	27.4	1678278.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMO
2.1	2.9	3.7	3.3	2.5	2.4	2.8	3.9	5.8	9.2	14.8	22.9	34.6	47.0	59.4	61.8	6.5

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					2.58	1.78											1.58
45-49						3.32	-0.13										0.79
50-54						5.48	9.73	7.62	15.69								8.33
55-59			62.04	34.74		20.75	26.25	40.06	58.48	232.15							30.44
60-64			69.70	54.69		13.65	47.39	55.13	72.92	114.74	173.02	460.99					89.50
65-69						30.12	69.13	67.57	147.20	148.49	175.94	230.12	1175.47				155.44
70-74					264.49		37.32	100.34	84.85	271.07	320.79	336.11	441.31	828.57			296.17
75-79						150.27	215.79	263.09	463.56	165.25	501.99	519.71	517.47	750.01			476.62
80-84						159.46		486.04	1386.33	481.21	47.33	522.67	872.65	625.99	503.67		593.16
CMA			23.60	6.34	4.82	6.63	7.53	23.61	62.58	128.56	231.81	360.33	567.84	695.87	557.07		74.36

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					4.52	3.43											3.15
45-49						3.60	0.90										1.62
50-54						3.47	5.38	4.43	8.07								4.75
55-59			17.05	9.99		6.37	0.99	7.79	11.36	16.13	61.05						8.88
60-64			11.36	9.13		3.03	8.04	9.19	11.84	18.05	26.71	69.51					14.30
65-69						3.57	6.90	6.77	13.57	13.68	16.02	20.65	101.36				14.27
70-74					13.97		2.83	5.92	5.16	14.30	16.73	17.49	22.64	41.64			15.53
75-79						5.23	7.06	8.41	14.06	5.66	15.14	15.64	15.58	22.13			14.43
80-84						3.58		8.87	23.44	8.79	1.77	9.46	15.13	11.13	9.15		10.60
CMA			7.33	2.94	2.91	3.77	3.68	7.11	11.73	14.98	16.69	16.71	17.42	15.80	10.38		12.44

CMA=Combined ages.
CMD=Combined durations.

Comparison of All-Cause Mortality of Current Smokers
and Neversmokers for White Males Aged Between 40 and 84
1-9 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	161.3	269.3	449.5	750.3	1252.4	2090.5	3489.5	5624.7	9722.7

Observed deaths for smokers based on age groups \ durations (years)
Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	1	0	0	4	3	6	2	0	0	0	0	0	0	0	0	0	16
45-49	0	1	3	3	6	15	18	5	0	0	0	0	0	0	0	0	51
50-54	0	2	1	2	4	15	48	53	12	0	0	0	0	0	0	0	137
55-59	0	3	0	5	4	10	52	108	110	25	1	0	0	0	0	0	318
60-64	0	1	6	7	7	14	19	57	146	153	26	1	0	0	0	0	437
65-69	0	0	1	10	2	12	11	30	61	161	185	44	1	0	0	0	518
70-74	0	0	0	10	15	11	13	19	34	88	187	142	43	1	0	0	563
75-79	0	0	0	0	10	32	15	12	31	45	64	167	136	37	0	0	549
80-84	0	0	0	0	0	6	29	11	17	17	26	36	89	65	20	0	316
CMA	1	7	11	41	51	121	207	295	411	489	489	390	269	103	20	0	2905

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
40-44	22.9	104.8	235.9	668.3	1756.3	1862.2	297.9	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4958.2
45-49	62.5	194.8	302.3	511.4	1479.9	3831.6	4080.2	664.5	24.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11151.9
50-54	92.6	316.8	417.8	569.2	1095.8	3187.9	7477.6	7217.6	1134.8	35.9	0.0	0.0	0.0	0.0	0.0	0.0	21546.0
55-59	73.5	340.9	456.0	525.0	768.3	1568.3	4386.6	9656.8	8400.1	1353.1	38.9	0.0	0.0	0.0	0.0	0.0	27567.4
60-64	0.0	172.0	508.3	415.8	510.1	752.2	1481.3	3987.1	8517.9	6756.0	1170.6	34.8	0.0	0.0	0.0	0.0	24305.9
65-69	0.0	0.0	233.8	446.4	323.3	470.6	625.3	1113.8	3171.3	6200.9	4637.8	830.9	28.5	0.0	0.0	0.0	18082.6
70-74	0.0	0.0	0.0	247.1	463.3	269.9	379.6	448.4	889.7	2109.5	3814.8	2645.6	611.5	26.1	0.0	0.0	11905.3
75-79	0.0	0.0	0.0	0.0	260.3	394.0	188.6	249.8	324.6	532.8	1160.3	1838.6	1298.9	357.9	13.3	0.0	6619.0
80-84	0.0	0.0	0.0	0.0	0.0	194.3	226.8	105.3	113.7	132.3	207.3	405.5	716.1	468.0	159.8	4.0	2733.2
CMA	251.5	1129.4	2154.0	3383.1	6657.2	12531.0	19143.8	23453.2	22576.8	17120.6	11029.5	5755.3	2655.0	852.0	173.2	4.0	128869.5

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

466.4	604.7	823.9	949.3	931.0	877.3	814.4	939.6	1338.4	1998.0	3017.0	4459.2	6298.1	7894.4	9422.6	9722.7	1622.5

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				437.25	9.49	160.88	510.00										161.37
45-49			723.27	317.32	136.14	122.20	171.87	483.16									188.03
50-54		181.75	-210.12	-98.10	-84.48	21.03	192.42	284.82	607.93								186.35
55-59		129.68		202.08	-229.64	-112.68	435.13	368.09	559.21	1097.33							403.23
60-64			-71.89	431.30	119.92	608.88	30.22	177.21	461.63	1012.25	968.71						545.51
65-69			-1662.8	149.53	-1471.9	459.50	-331.23	602.87	-167.00	505.86	1896.47	3204.83					774.11
70-74				567.69	-251.53	585.81	-64.72	747.60	332.13	682.08	1412.50	1877.91	3542.36				1239.45
75-79				-1982.2		2297.08	2129.30	-1019.9	3725.96	2620.67	-308.69	325.34	4645.52	4512.86			2469.56
80-84						-6635.2	3062.01				2822.53	-644.78	2706.02	4166.18	2790.33		1838.97
CMA	-68.75	15.05	-313.25	262.66	-164.94	88.27	266.93	318.26	482.04	858.19	1416.61	2317.11	3833.69	4194.81	2126.99		631.75

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				3.71	1.06	2.00	4.16										2.00
45-49			3.69	2.18	1.51	1.45	1.64	2.79									1.70
50-54		1.40	0.53	0.78	0.81	1.05	1.43	1.63	2.35								1.41
55-59		1.17		1.27	0.69	0.85	1.58	1.49	1.75	2.46							1.54
60-64			0.94	1.34	1.10	1.49	1.02	1.14	1.37	1.81	1.77						1.44
65-69			0.20	1.07	0.30	1.22	0.84	1.29	0.92	1.24	1.91	2.53					1.37
70-74				1.16	0.93	1.17	0.98	1.21	1.10	1.20	1.40	1.54	2.02				1.36
75-79					0.66	1.39	1.37	0.82	1.64	1.45	0.95	1.56	1.80	1.77			1.42
80-84						0.32	1.31				1.29	0.91	1.28	1.43	1.29		1.19
CMA	0.85	1.02	0.62	1.28	0.82	1.10	1.33	1.34	1.36	1.43	1.47	1.52	1.61	1.53	1.23		1.39

CMA=Combined ages.
CMD=Combined durations.

Comparison of All-Cause Mortality of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

10-19 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	161.3	269.3	449.5	750.3	1252.4	2090.5	3489.5	5824.7	9722.7

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	1	2	10	15	6	0	0	0	0	0	0	0	0	0	34
45-49	0	2	0	1	11	60	78	12	0	0	0	0	0	0	0	0	164
50-54	0	3	2	2	11	48	150	189	38	1	0	0	0	0	0	0	444
55-59	1	3	1	10	12	26	119	324	361	81	3	1	0	0	0	0	941
60-64	0	0	5	5	10	24	42	158	415	462	82	.	0	0	0	0	1206
65-69	0	0	1	9	12	22	27	66	187	473	499	105	5	0	0	0	1406
70-74	0	0	0	10	15	10	22	20	64	177	443	423	106	6	0	0	1296
75-79	0	0	0	0	16	15	22	32	38	58	119	303	248	74	5	0	930
80-84	0	0	0	0	0	6	12	9	21	23	35	72	149	127	35	1	490
CMA	1	8	10	39	97	226	478	810	1124	1275	1181	906	508	207	40	1	6911

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	17.3	66.8	244.1	1357.0	4857.6	5880.6	936.0	38.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13397.7
45-49	49.9	148.3	230.9	741.6	3160.6	10349.7	12504.3	2023.0	69.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29277.4
50-54	78.2	226.0	380.3	676.0	1807.8	6879.5	19801.0	20870.2	3341.1	100.7	0.0	0.0	0.0	0.0	0.0	0.0	54160.7
55-59	37.3	199.1	339.3	576.8	1064.3	2511.5	9343.5	25001.0	23516.3	3846.9	105.9	0.0	0.0	0.0	0.0	0.0	66542.0
60-64	0.0	84.4	311.7	383.8	644.1	1101.5	2362.0	8420.8	21191.9	18412.1	3158.2	106.9	0.0	0.0	0.0	0.0	56177.3
65-69	0.0	0.0	131.6	317.4	397.8	584.7	879.0	1800.5	6172.5	14388.7	11954.3	2418.4	84.8	0.0	0.0	0.0	39129.6
70-74	0.0	0.0	0.0	159.4	367.0	336.3	495.4	699.0	1313.8	3682.9	8133.3	6526.3	1520.6	56.4	0.0	0.0	23290.5
75-79	0.0	0.0	0.0	0.0	153.0	262.9	253.4	308.6	433.9	786.8	1827.3	3481.2	2766.5	713.8	18.5	0.0	11005.8
80-84	0.0	0.0	0.0	0.0	0.0	114.6	173.8	126.8	131.3	208.0	325.8	533.1	1093.7	819.5	264.5	1.7	3792.8
CMA	182.7	724.5	1637.9	4212.0	12452.2	28021.3	46748.4	59288.3	56170.0	41426.0	25504.8	13066.?	5465.5	1589.7	283.0	1.7	296773.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

434.5	562.3	728.1	678.0	566.7	540.1	622.9	817.5	1192.8	1823.2	2792.3	4088.8	5897.1	7751.3	9467.9	9722.7	1410.9

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			248.37	-13.94	44.54	93.75	479.70										92.45
45-49				-134.44	78.75	310.44	354.50	323.89									290.87
50-54		877.94	76.36	-153.64	159.00	248.23	308.04	456.10	687.86								370.29
55-59		756.61	-455.61	963.30	377.17	284.94	523.31	545.65	784.81	1355.28							663.84
60-64			351.87	50.52	300.19	926.44	525.75	623.89	705.89	1256.81	1344.04						894.37
65-69				744.86	925.81	1672.30	981.14	1575.12	939.04	1196.78	2083.72	2251.15					1502.66
70-74				2763.34	597.67	-516.29	951.18	-628.30	1381.72	1316.45	1957.20	2991.99	3481.48				2074.97
75-79					4632.77	-119.51	2856.61	4545.23	2932.70	1547.36	687.48	2879.23	3139.65	4543.03			2625.32
80-84							-2816.2			1334.99	1021.73	3779.40	3901.19	5774.55	3509.81		3196.68
CMA		541.93	-117.55	247.92	212.33	266.47	399.61	548.68	808.29	1254.59	1838.17	2845.19	3397.52	5270.26	4666.38		917.77

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			2.54	0.91	1.28	1.58	3.97										1.57
45-49				0.50	1.29	2.15	2.32	2.20									2.06
50-54		2.95	1.17	0.66	1.35	1.55	1.69	2.01	2.53								1.82
55-59		2.01	0.39	2.31	1.50	1.38	1.70	1.73	2.05	2.81							1.88
60-64			1.28	1.04	1.24	1.74	1.42	1.50	1.56	2.00	2.07						1.71
65-69				1.36	1.44	1.80	1.47	1.75	1.45	1.57	2.00	2.08					1.72
70-74				1.80	1.17	0.85	1.27	0.82	1.40	1.38	1.56	1.86	2.00				1.59
75-79					1.80	0.98	1.49	1.78	1.50	1.27	1.12	1.49	1.54	1.78			1.45
80-84							0.71			1.14	1.11	1.39	1.40	1.59	1.36		1.33
CMA		1.96	0.84	1.37	1.37	1.49	1.64	1.67	1.68	1.69	1.66	1.70	1.58	1.68	1.49		1.65

CMA=Combined ages.
CMD=Combined durations.

Comparison of All-Cause Mortality of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

20 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	161.3	269.3	449.5	750.3	1252.4	2090.5	3489.5	5824.7	9722.7

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	6	35	71	21	1	0	0	0	0	0	0	0	0	134
45-49	0	1	1	2	24	146	270	43	5	0	0	0	0	0	0	0	492
50-54	0	2	3	8	21	120	445	649	121	6	0	0	0	0	0	0	1375
55-59	0	4	8	5	22	46	251	819	1070	281	7	0	0	0	0	0	2513
60-64	0	1	4	9	25	20	77	328	1140	1172	290	11	0	0	0	0	3077
65-69	0	0	3	11	16	18	39	76	353	994	1034	254	13	0	0	0	2811
70-74	0	0	0	11	22	20	31	35	74	264	819	713	200	9	0	0	2218
75-79	0	0	0	0	7	20	17	26	43	56	180	432	385	111	6	0	1283
80-84	0	0	0	0	0	7	23	7	23	20	32	92	177	167	46	2	596
CMA	0	8	19	52	172	468	1174	1984	2829	2813	2362	1502	775	287	52	2	14499

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	15.9	83.6	329.9	2841.8	11988.3	15971.4	2856.6	85.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34173.0
45-49	54.6	153.2	373.2	1283.2	6503.3	25247.0	34125.2	6451.8	204.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74395.6
50-54	76.3	262.0	481.1	1169.9	3063.6	14515.9	48267.8	55330.5	10600.3	326.3	0.0	0.0	0.0	0.0	0.0	0.0	134093.8
55-59	21.4	196.0	423.4	847.6	1768.8	4184.3	19276.4	59059.8	60180.5	11710.8	323.8	0.0	0.0	0.0	0.0	0.0	157992.7
60-64	0.0	69.2	297.2	499.3	992.2	1749.8	3921.8	16326.5	46302.3	42031.2	8527.7	239.4	0.0	0.0	0.0	0.0	120956.3
65-69	0.0	0.0	132.3	364.0	487.8	799.9	1294.9	2628.4	10320.5	27101.6	23305.1	5127.1	167.3	0.0	0.0	0.0	71749.0
70-74	0.0	0.0	0.0	191.7	397.5	376.6	522.8	804.4	1578.4	5393.2	13110.8	10574.4	2739.4	88.5	0.0	0.0	35779.6
75-79	0.0	0.0	0.0	0.0	169.2	310.3	242.3	306.0	419.4	795.8	2299.2	4814.0	3818.4	1132.4	40.5	0.0	14347.4
80-84	0.0	0.0	0.0	0.0	0.0	116.3	146.9	96.5	126.3	150.2	283.1	552.3	1260.1	951.9	338.6	16.5	4038.5
CMA	168.3	763.9	2037.1	7217.4	25370.6	63273.4	110654.5	141069.5	129731.8	87509.0	47849.5	21307.2	7985.3	2172.8	379.1	16.5	647525.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
402.1	531.7	656.1	562.9	434.5	429.3	525.0	725.8	1069.3	1635.8	2540.0	3816.9	5560.5	7437.3	9306.3	9722.7	1163.7

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				49.81	130.63	283.22	573.82										230.80
45-49			-1.31	-113.42	99.75	309.00	521.92	397.19	2179.69								392.04
50-54		313.86	174.10	234.31	235.96	377.18	472.45	723.46	691.96	1389.12							575.91
55-59		1290.52	1139.09	-160.39	493.52	349.06	551.81	636.43	1027.68	1649.19	1411.86						840.28
60-64			93.64	550.00	1267.33	-109.39	711.00	756.60	1209.68	1536.00	2148.29	3342.09					1291.49
65-69				774.05	1189.28	159.71	921.25	800.95	1329.85	1577.15	2346.27	2863.55	*678.40				1827.30
70-74				2249.60	2045.07	1793.33	2440.65	861.45	1196.72	1776.40	2757.26	3253.16	3811.30				2709.54
75-79					-1686.8	619.94	1192.80	2671.99	4427.59	1212.64	2004.18	3149.08	4257.97	3977.30			3117.63
80-84										3595.83	1581.39	6936.42	4323.98	7820.85	3863.31		5035.25
CMA		515.53	276.64	157.57	243.42	310.36	535.96	680.39	1111.40	1578.75	2396.31	3232.36	4144.92	5771.24	4411.04		1075.43

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				1.31	1.81	2.76	4.56										2.43
45-49			1.00	0.58	1.37	2.15	2.94	2.47	9.09								2.46
50-54		1.70	1.39	1.52	1.52	1.84	2.05	2.61	2.54	4.09							2.28
55-59		2.72	2.52	0.79	1.66	1.47	1.74	1.85	2.37	3.20	2.88						2.12
60-64			1.07	1.44	2.01	0.91	1.57	1.60	1.97	2.23	2.72	3.67					2.03
65-69				1.37	1.57	1.08	1.44	1.38	1.64	1.75	2.12	2.37	3.72				1.87
70-74				1.64	1.59	1.51	1.70	1.25	1.34	1.51	1.79	1.93	2.09				1.78
75-79					0.71	1.11	1.20	1.46	1.76	1.21	1.34	1.54	1.73	1.68			1.54
80-84										1.37	1.16	1.71	1.44	1.80	1.40		1.52
CMA		1.97	1.42	1.28	1.56	1.72	2.02	1.94	2.04	1.97	1.94	1.85	1.75	1.78	1.47		1.92

CMA=Combined ages.
CMD=Combined durations.

Comparison of All-Cause Mortality of Current Smokers and Neversmokers for White Males Aged Between 40 and 84
21-39 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	161.3	269.3	449.5	750.3	1252.4	2090.5	3489.5	5824.7	9722.7

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	6	33	47	15	0	0	0	0	0	0	0	0	0	101
45-49	0	0	1	1	21	104	166	39	1	0	0	0	0	0	0	0	333
50-54	0	0	1	2	20	77	302	487	105	3	0	0	0	0	0	0	997
55-59	1	0	3	4	9	30	171	538	699	175	5	0	0	0	0	0	1635
60-64	0	1	2	4	8	5	50	217	705	700	195	10	0	0	0	0	1897
65-69	0	0	0	4	4	11	15	34	206	529	556	145	6	0	0	0	1510
70-74	0	0	0	2	5	10	10	25	31	122	322	309	97	3	0	0	906
75-79	0	0	0	0	1	5	5	9	12	19	68	132	120	42	2	0	415
80-84	0	0	0	0	0	2	2	5	1	2	7	25	37	28	11	0	120
CMA	1	1	7	23	101	291	736	1354	1760	1550	1153	621	260	73	13	0	7944

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	3.1	26.2	160.2	1720.0	7693.8	10580.9	2000.3	64.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22249.1
45-49	20.6	46.6	151.4	725.8	4094.9	16627.3	23137.9	4715.6	146.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49666.2
50-54	21.8	92.3	204.5	581.7	1792.3	9184.8	31882.9	36894.5	7345.4	234.4	0.0	0.0	0.0	0.0	0.0	0.0	88234.5
55-59	4.6	62.8	171.2	370.3	852.9	2408.5	12048.3	37327.9	37787.0	7906.3	208.3	0.0	0.0	0.0	0.0	0.0	99148.1
60-64	0.0	22.0	91.0	183.4	424.9	767.7	2031.0	9457.1	26549.2	23365.3	5263.6	145.2	0.0	0.0	0.0	0.0	68300.3
65-69	0.0	0.0	33.5	105.4	194.3	322.6	556.9	1240.0	5098.3	13010.6	10937.7	2664.8	77.8	0.0	0.0	0.0	34241.8
70-74	0.0	0.0	0.0	42.8	100.6	134.4	218.6	326.2	567.9	2081.1	4997.5	3830.8	1070.8	30.2	0.0	0.0	13400.8
75-79	0.0	0.0	0.0	0.0	37.5	68.4	71.2	81.3	123.6	236.8	680.3	1373.9	1070.8	316.1	7.6	0.0	4067.5
80-84	0.0	0.0	0.0	0.0	0.0	12.5	22.8	17.3	19.9	38.4	66.7	138.5	287.1	233.4	63.9	2.0	902.5
CMA	5?.0	249.8	811.8	3729.5	15191.2	40107.0	71969.9	90124.6	77637.3	46872.8	22154.0	8153.2	2506.5	579.7	71.5	2.0	380210.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
385.1	532.0	580.2	432.2	348.7	367.6	486.7	688.9	1011.1	1525.7	2332.0	3491.9	5157.7	7272.8	9309.3	9722.7	966.2

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				187.51	267.59	282.87	588.55										292.63
45-49				-131.51	243.54	356.19	448.15	557.76									401.19
50-54			39.50	-105.66	666.42	368.85	497.72	870.48	979.97	830.28							680.45
55-59			1002.38	329.81	304.90	495.29	668.98	690.98	1099.54	1463.11	1650.66						898.75
60-64				928.42	630.31	-601.08	1209.43	1042.17	1403.04	1743.49	2452.29						1525.03
65-69					-32.21	1319.44	602.87	651.41	1950.07	1975.39	2992.82	3350.88					2319.28
70-74							1085.39	4175.27	1969.02	2372.81	2953.70	4576.60	5569.54				3495.11
75-79											2200.60	4170.36	3782.83	5381.48	7462.89		4378.08
80-84													3165.54	2273.01			3573.69
CMA		-131.70	282.15	184.53	316.15	357.92	535.91	813.45	1255.89	1781.12	2872.45	4124.82	5215.37	5320.62			1123.14

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				2.16	2.66	2.75	4.65										2.81
45-49				0.51	1.90	2.32	2.66	3.07									2.49
50-54			1.09	0.76	2.48	1.87	2.11	2.94	3.18	2.85							2.51
55-59			2.34	1.44	1.41	1.66	1.89	1.92	2.47	2.95	3.20						2.20
60-64				1.74	1.50	0.52	1.97	1.83	2.12	2.39	2.96						2.22
65-69					0.98	1.63	1.29	1.31	1.93	1.94	2.43	2.60					2.11
70-74							1.31	2.20	1.56	1.68	1.85	2.31	2.60				2.00
75-79											1.38	1.72	1.65	1.92	2.28		1.75
80-84													1.33	1.23			1.37
CMA		0.75	1.49	1.43	1.91	1.97	2.10	2.18	2.24	2.17	2.23	2.18	2.01	1.73			2.16

CMA=Combined ages.
CMD=Combined durations.

Comparison of All-Cause Mortality of Current Smokers
and Neversmokers for White Males Aged Between 40 and 84
40+ cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	161.3	269.3	449.5	750.3	1252.4	2090.5	3489.5	5624.7	9722.7

Observed deaths for smokers based on age groups \ durations (years)
Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	1	2	18	34	11	1	0	0	0	0	0	0	0	0	67
45-49	0	0	2	1	15	62	129	30	1	0	0	0	0	0	0	0	240
50-54	0	3	0	3	13	57	226	291	92	2	0	0	0	0	0	0	687
55-59	0	2	2	1	8	18	108	429	511	142	9	0	0	0	0	0	1230
60-64	0	0	4	1	7	12	27	147	438	487	131	7	0	0	0	0	1261
65-69	0	0	1	1	3	7	23	29	103	323	307	87	7	0	0	0	891
70-74	0	0	0	0	1	3	3	8	28	60	166	152	66	2	0	0	489
75-79	0	0	0	0	0	4	1	4	10	11	30	74	57	25	0	0	216
80-84	0	0	0	0	0	1	2	1	1	4	5	11	17	20	10	1	73
CMA	0	5	10	9	65	198	530	940	1184	1029	648	331	147	47	10	1	5154

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
40-44	11.5	20.8	123.6	878.3	3739.6	5384.8	1323.4	49.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11531.8
45-49	13.8	62.2	84.8	422.8	2256.2	8956.0	12920.9	3309.8	122.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28178.6
50-54	14.8	64.6	173.0	365.9	1007.7	5046.6	17670.1	21472.3	5376.2	187.3	0.0	0.0	0.0	0.0	0.0	0.0	51378.3
55-59	10.4	60.0	112.3	252.4	525.8	1455.3	6804.4	21049.2	21980.8	5528.8	163.3	0.0	0.0	0.0	0.0	0.0	57942.7
60-64	0.0	24.0	85.7	123.0	259.2	507.4	1233.5	5238.6	14826.3	13360.3	3459.3	111.2	0.0	0.0	0.0	0.0	39028.3
65-69	0.0	0.0	27.4	58.3	100.9	194.5	317.7	732.0	2775.1	6904.7	5780.3	1696.1	59.8	0.0	0.0	0.0	18646.7
70-74	0.0	0.0	0.0	16.9	41.1	72.8	98.2	176.4	349.3	1028.9	2461.4	2001.6	715.9	29.8	0.0	0.0	6992.3
75-79	0.0	0.0	0.0	0.0	14.0	23.4	37.5	51.3	78.3	112.9	293.5	619.0	538.8	230.4	5.8	0.0	2004.9
80-84	0.0	0.0	0.0	0.0	0.0	6.1	11.3	16.2	21.3	16.8	22.5	62.4	140.0	116.1	43.5	2.3	458.3
CMA	50.5	231.6	606.7	2117.7	7944.3	21646.8	40416.9	52125.7	45529.4	27139.7	12180.3	4490.3	1454.5	376.3	49.3	2.3	216361.9

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
	396.6	536.3	608.8	446.0	354.8	375.7	485.4	681.3	992.6	1466.9	2221.3	3014.3	4897.1	6642.7	9267.6	9722.7	945.9

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				66.38	320.01	470.09	669.86										419.67
45-49				-32.74	395.56	422.99	729.09	628.96									582.42
50-54				370.36	840.61	679.98	829.50	905.74	1261.76	618.60							887.64
55-59				-354.13	771.33	486.60	836.90	1287.78	1574.45	1818.05	4759.90						1372.49
60-64					1448.56	1112.51	936.49	1553.69	1701.80	2392.73	2534.54						1962.11
65-69						1506.44	5149.76	1871.22	1621.07	2587.47	3220.66	3038.94					2687.80
70-74								1045.19	4525.74	2341.85	3254.56	4104.46	5729.42				3503.93
75-79											4396.72	6131.02	4753.67	5025.17			4948.77
80-84																	6204.57
CMA		1622.71	1039.54	-20.98	463.38	539.01	825.89	1122.00	1607.90	2324.60	3098.77	4057.26	5209.44	5648.97			1436.19

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				1.41	2.98	3.91	5.15										3.60
45-49				0.88	2.47	2.57	3.71	3.34									3.16
50-54				1.82	2.87	2.51	2.85	3.02	3.81	2.38							2.97
55-59				0.53	2.03	1.65	2.12	2.72	3.10	3.42	7.34						2.83
60-64					2.16	1.89	1.75	2.24	2.36	2.91	3.02						2.57
65-69						1.72	3.46	1.90	1.78	2.24	2.54	2.45					2.29
70-74								1.30	2.30	1.67	1.93	2.18	2.64				2.00
75-79											1.75	2.05	1.82	1.86			1.85
80-84																	1.64
CMA		4.03	2.71	0.95	2.31	2.43	2.70	2.65	2.62	2.58	2.40	2.22	2.06	1.83			2.52

CMA=Combined ages.
CMD=Combined durations.

Comparison of All-Cause Mortality of Current Smokers and Neversmokers for White Males Aged Between 40 and 84

Current smokers of any number of cigarettes

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	161.3	269.3	449.5	750.3	1252.4	2090.5	3489.5	5824.7	9722.7

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	1	0	2	20	99	174	55	2	0	0	0	0	0	0	0	0	353
45-49	0	4	7	8	77	389	663	129	7	0	0	0	0	0	0	0	1284
50-54	0	10	7	17	69	319	1172	1676	371	12	0	0	0	0	0	0	3653
55-59	2	12	14	25	55	131	704	2232	2765	707	25	(	0	0	0	0	6672
60-64	0	3	22	27	58	75	215	908	2864	2991	728	3(	0	0	0	0	7923
65-69	0	0	6	35	37	72	116	235	920	2497	2600	643	32	0	0	0	7193
70-74	0	0	0	33	61	55	80	107	233	737	1948	1755	514	22	0	0	5545
75-79	0	0	0	0	34	78	60	84	136	189	467	1117	955	291	14	0	3425
80-84	0	0	0	0	0	22	69	33	63	67	107	236	476	413	125	4	1615
CMA	3	29	58	165	490	1315	3134	5406	7359	7200	5875	3783	1977	726	139	4	37663

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
40-44	70.7	306.3	1109.5	7511.5	30155.5	39819.0	7427.3	249.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86649.2
45-49	204.6	608.3	1152.2	3709.5	17582.3	65235.1	87054.7	17245.7	567.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	193359.5
50-54	283.6	972.4	1666.7	3377.8	8813.7	38957.3	125546.2	142326.2	27912.5	889.7	0.0	0.0	0.0	0.0	0.0	0.0	350745.8
55-59	147.3	860.8	1517.3	2590.4	4998.8	12185.2	52086.3	152730.6	152535.9	30473.9	847.4	0.0	0.0	0.0	0.0	0.0	410973.7
60-64	0.0	373.6	1308.4	1628.2	2850.3	4907.7	11087.3	43648.0	118020.7	104549.8	21697.3	641.4	0.0	0.0	0.0	0.0	310712.5
65-69	0.0	0.0	565.7	1328.6	1518.3	2390.4	3710.8	7567.8	27687.5	68038.6	57018.8	12818.9	421.2	0.0	0.0	0.0	183066.3
70-74	0.0	0.0	0.0	674.8	1404.1	1199.9	1732.8	2484.8	4751.0	14410.2	32827.4	25806.5	6714.3	235.6	0.0	0.0	92241.3
75-79	0.0	0.0	0.0	0.0	649.4	1076.7	795.9	1004.8	1402.7	2490.8	6325.8	12247.8	9584.8	2800.8	89.1	0.0	38468.3
80-84	0.0	0.0	0.0	0.0	0.0	452.0	590.3	365.1	414.3	552.5	916.5	1711.0	3531.6	2617.2	884.3	27.4	12062.2
CMA	706.1	3121.3	7319.7	20820.7	67972.2	166223.2	290031.3	367622.3	333291.9	221405.4	119633.2	53225.(	20251.8	5653.5	973.3	27.4	1578278.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

431.2	565.1	710.1	616.9	481.6	461.1	545.5	739.4	1065.0	1655.8	2568.8	3863.4	5652.6	7531.9	9365.9	9722.7	1172.1

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			18.94	104.93	166.97	275.65	579.19	640.55									246.06
45-49		388.34	338.26	-53.62	168.66	327.02	492.30	476.73	964.56								394.76
50-54		578.87	-29.50	53.80	333.38	369.35	484.03	728.08	879.66	899.32							592.00
55-59		643.83	172.42	214.79	349.97	324.78	601.30	711.10	1062.39	1569.72	2199.84						873.16
60-64		-449.37	429.01	405.90	782.50	275.81	686.76	827.87	1174.29	1608.43	2102.86	3736.55					1297.54
65-69			-1029.8	543.86	346.49	921.50	1035.52	1014.75	1232.27	1579.45	2469.37	2925.50	5507.41				1838.65
70-74				1401.17	854.95	1094.13	1127.41	1414.70	1624.92	2444.54	3311.09	4165.74	5849.00				2521.88
75-79					-589.28	1419.84	1713.73	2536.54	3871.07	1763.33	1557.68	3295.30	4139.00	4565.33			3078.68
80-84						-4855.4	1965.61	-683.67	5482.44	2403.99	1952.14	4070.40	3755.67	6057.72	4413.57		3666.27
CMA	-6.29	363.94	82.24	175.61	239.25	330.03	535.05	731.15	1122.99	1596.15	2342.01	3244.12	4109.48	5309.69	4914.87		1072.03

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			1.12	1.65	2.03	2.71	4.59	4.97									2.53
45-49		2.44	2.25	0.80	1.63	2.21	2.83	2.78	4.58								2.47
50-54		2.29	0.93	1.12	1.74	1.82	2.06	2.62	2.96	3.00							2.32
55-59		1.86	1.23	1.29	1.47	1.43	1.80	1.95	2.42	3.09	3.93						2.16
60-64		0.64	1.34	1.32	1.62	1.22	1.55	1.66	1.94	2.28	2.68	3.98					2.04
65-69			0.51	1.26	1.17	1.44	1.50	1.49	1.59	1.76	2.18	2.40	3.63				1.88
70-74				1.40	1.25	1.31	1.32	1.23	1.41	1.47	1.70	1.95	2.19	2.68			1.72
75-79					0.90	1.24	1.29	1.44	1.66	1.30	1.27	1.57	1.71	1.76			1.53
80-84						0.50	1.20	0.93	1.56	1.25	1.20	1.42	1.39	1.62	1.45		1.38
CMA	0.99	1.64	1.12	1.28	1.50	1.72	1.98	1.99	2.04	1.96	1.91	1.84	1.73	1.70	1.52		1.91

CMA=Combined ages.
CMD=Combined durations.

Comparison of Lung Cancer Death Rates of Current Smokers
and Neversmokers for White Females Aged Between 40 and 84
1-9 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	2.4	3.5	5.2	7.6	11.1	16.3	23.9	35.1	51.4

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
45-49	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
50-54	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	5
55-59	0	0	0	1	1	0	6	2	0	0	0	0	0	0	0	0	10
60-64	0	0	0	0	1	0	2	5	1	1	0	0	0	0	0	0	10
65-69	0	0	1	1	2	1	1	2	3	0	0	0	0	0	0	0	11
70-74	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	3
75-79	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	3
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CMA	0	0	1	3	5	1	14	12	7	1	1	0	0	0	0	0	45

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	709.3	2091.8	3221.0	6111.7	11643.1	10203.1	667.3	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34653.1
45-49	1080.5	3437.5	4635.5	6281.3	11346.4	20786.1	16442.0	945.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64960.7
50-54	1046.6	3987.8	6165.6	7067.4	9590.8	17192.7	27229.5	17452.5	904.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	90645.0
55-59	487.5	3251.3	5824.0	6817.8	8002.3	11305.3	18212.4	23225.2	11331.1	575.8	13.9	0.0	0.0	0.0	0.0	0.0	89046.7
60-64	0.0	1334.5	4669.5	4904.3	5913.2	7083.5	9539.7	12597.9	11678.7	4341.5	282.3	9.9	0.0	0.0	0.0	0.0	62354.9
65-69	0.0	0.0	1921.2	4077.8	3524.4	4485.3	5289.4	6171.6	5796.7	4025.3	1345.9	158.8	7.2	0.0	0.0	0.0	36803.3
70-74	0.0	0.0	0.0	1620.6	2876.8	2302.6	2951.9	3145.5	3035.7	2082.8	1348.6	595.2	82.2	3.3	0.0	0.0	20044.9
75-79	0.0	0.0	0.0	0.0	1077.9	1689.2	1265.3	1472.6	1402.3	1128.5	607.2	507.3	239.6	36.2	1.0	0.0	9427.1
80-84	0.0	0.0	0.0	0.0	0.0	572.8	754.3	490.6	504.0	414.5	304.0	187.3	165.3	67.4	8.0	1.0	3469.0
CMA	3323.8	14102.8	26436.8	36880.8	53974.8	75620.3	82351.8	65507.0	34658.7	12576.6	3901.8	1458.4	494.2	106.8	9.0	1.0	411404.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

4.4	5.5	7.0	7.7	7.6	7.5	8.3	10.1	13.4	18.2	24.2	30.4	38.4	45.1	49.6	51.4	9.1

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					6.18												0.47
45-49							8.63										-0.46
50-54							2.16	6.27	105.43								0.33
55-59				7.07	4.89		25.34	1.01									3.63
60-64					5.77		9.82	28.55	-2.58	11.89							4.89
65-69			35.72	8.19	40.41	5.96	2.57	16.07	35.42								13.55
70-74				37.76				7.85	9.00								-6.96
75-79							43.93		36.21		129.60						-3.28
80-84																	
CMA			-3.17	0.39	1.69	-6.21	8.67	8.18	6.82	-10.28	1.42						1.83

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					3.56												1.20
45-49							3.44										0.87
50-54							1.42	2.21	21.33								1.06
55-59			1.93		1.64		4.33	1.13									1.48
60-64					1.52		1.88	3.56	0.77	2.07							1.44
65-69			3.19	1.50	3.47	1.36	1.16	1.98	3.17								1.83
70-74				2.58				1.33	1.38								0.63
75-79							2.25		2.03		4.69						0.91
80-84																	
CMA			0.54	1.05	1.22	0.18	2.04	1.81	1.51	0.44	1.06						1.20

CMA=Combined ages.
CMD=Combined durations.

Comparison of Lung Cancer Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

10-19 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	2.4	3.5	5.2	7.6	11.1	16.3	23.9	35.1	51.4

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
45-49	0	0	0	0	0	2	4	0	0	0	0	0	0	0	0	0	6
50-54	0	0	0	0	2	3	10	6	2	0	0	0	0	0	0	0	23
55-59	0	0	1	0	1	3	1	8	7	0	0	0	0	0	0	0	21
60-64	0	0	1	0	2	1	6	11	11	2	0	0	0	0	0	0	34
65-69	0	0	0	0	2	4	1	1	4	5	1	0	0	0	0	0	18
70-74	0	0	0	0	0	1	2	2	3	1	2	2	0	0	0	0	13
75-79	0	0	0	0	0	0	1	1	2	1	1	1	0	0	0	0	7
80-84	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	4
CMA	0	0	2	0	8	15	27	31	29	9	4	3	0	0	0	0	128

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	239.5	1039.5	2406.6	6950.7	16936.8	16826.9	966.8	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45394.8
45-49	332.4	1554.7	3095.0	5997.3	14740.5	32996.0	28767.3	1785.4	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89279.5
50-54	329.1	1687.4	3649.4	6198.0	10600.4	24183.5	44607.8	31016.3	1724.5	13.0	0.0	0.0	0.0	0.0	0.0	0.0	124009.4
55-59	197.6	1286.8	3013.9	5189.8	8175.5	13661.1	26372.8	37425.8	19522.1	941.7	13.1	0.0	0.0	0.0	0.0	0.0	115800.0
60-64	0.0	523.1	2070.4	3297.8	5237.7	7969.3	11961.5	17808.8	17595.7	6772.3	319.3	6.0	0.0	0.0	0.0	0.0	73581.8
65-69	0.0	0.0	719.3	1989.8	2687.2	4235.6	6039.8	7569.8	7569.0	5282.9	1789.5	103.8	3.2	0.0	0.0	0.0	38009.8
70-74	0.0	0.0	0.0	688.7	1583.6	1843.7	2745.0	3237.1	3235.8	2333.7	1445.7	563.0	51.5	4.0	0.0	0.0	17731.7
75-79	0.0	0.0	0.0	0.0	534.4	996.2	1066.3	1276.8	1232.1	1024.4	628.3	367.8	176.0	29.4	2.0	0.0	7333.8
80-84	0.0	0.0	0.0	0.0	0.0	281.8	446.8	405.7	385.1	289.3	246.0	140.1	101.5	56.9	19.0	1.0	2373.1
CMA	1098.6	6091.4	14954.6	30312.1	60496.1	102994.0	123014.0	100553.7	51275.3	16657.3	4441.8	1180.7	332.2	90.3	21.0	1.0	513513.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

4.5	5.3	6.2	6.4	6.1	6.2	7.3	9.1	12.0	16.6	23.0	29.9	38.2	44.9	49.9	51.4	8.2

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					3.49	3.53											1.99
45-49					2.52	10.37											3.18
50-54					13.68	7.22	17.23	14.16	110.79								13.36
55-59			25.58		4.63	14.36	-3.81	13.77	28.26								10.53
60-64			37.16		27.04	1.41	38.93	50.62	51.37	18.39							36.06
65-69					56.09	78.10	0.22	-3.16	36.51	78.31	39.55						31.02
70-74						30.30	48.92	37.84	68.77	18.91	114.40	331.30					49.37
75-79							58.68	43.22	127.23	62.52	124.07	236.76					60.35
80-84							396.23	441.57									117.11
CMA			7.13		7.12	8.37	14.68	21.71	44.51	37.48	67.04	224.15					16.76

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					2.45	2.46											1.83
45-49					1.71	3.93											1.90
50-54					3.64	2.39	4.32	3.73	22.36								3.58
55-59			4.36		1.61	2.89	0.50	2.81	4.72								2.39
60-64			4.33		3.43	1.13	4.49	5.54	5.61	2.65							4.15
65-69					4.56	5.78	1.01	0.81	3.24	5.79	3.42						2.90
70-74						2.27	3.04	2.58	3.87	1.79	5.78	14.84					3.06
75-79							2.67	2.23	4.62	2.78	4.54	7.75					2.72
80-84							8.70	9.58									3.28
CMA			2.14		2.17	2.35	3.02	3.38	4.70	3.26	3.91	8.48					3.05

CMA=Combined ages.
CMD=Combined durations.

Comparison of Lung Cancer Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

20 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	2.4	3.5	5.2	7.6	11.1	16.3	23.9	35.1	51.4

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	5	1	1	0	0	0	0	0	0	0	0	0	7
45-49	0	0	1	0	4	11	13	2	0	0	0	0	0	0	0	0	31
50-54	0	0	0	0	3	8	19	14	1	0	0	0	0	0	0	0	45
55-59	0	0	0	1	1	3	10	27	8	2	0	0	0	0	0	0	52
60-64	0	0	0	1	3	1	8	12	15	6	1	0	0	0	0	0	47
65-69	0	0	0	1	0	2	8	5	17	13	5	0	0	0	0	0	51
70-74	0	0	0	0	1	0	3	4	3	5	0	4	0	0	0	0	20
75-79	0	0	0	0	1	0	1	2	1	1	0	1	0	0	0	0	7
80-84	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
CMA	0	0	1	3	18	26	63	67	45	27	6	5	0	0	0	0	261

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	122.0	731.3	1864.4	6356.6	18026.6	20503.2	1633.8	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49246.3
45-49	180.5	1002.0	2402.1	5194.9	13784.6	34778.5	30528.6	2516.8	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93401.0
50-54	149.6	992.5	2581.9	5031.6	9413.9	22961.8	46292.8	35321.8	2430.8	14.3	0.0	0.0	0.0	0.0	0.0	0.0	125200.8
55-59	89.3	741.5	2096.8	3998.7	6975.3	12751.7	25212.9	36148.0	21649.3	1271.8	9.7	0.0	0.0	0.0	0.0	0.0	112944.8
60-64	0.0	286.8	1260.2	2475.9	4345.8	7306.3	11809.8	17317.4	17882.0	7367.3	366.0	7.5	0.0	0.0	0.0	0.0	70475.0
65-69	0.0	0.0	419.0	1322.0	2099.4	3577.0	5635.6	7411.9	7257.7	5077.6	1778.6	135.8	7.0	0.0	0.0	0.0	34721.5
70-74	0.0	0.0	0.0	422.2	967.3	1333.6	2327.3	3066.0	3013.1	2110.2	1347.2	503.3	62.9	2.2	0.0	0.0	15155.0
75-79	0.0	0.0	0.0	0.0	315.8	582.2	715.3	1126.5	1081.8	860.8	509.1	324.4	142.6	23.9	0.0	0.0	5682.2
80-84	0.0	0.0	0.0	0.0	0.0	167.9	235.6	277.5	317.5	230.6	170.5	91.5	68.9	30.3	2.8	0.0	1593.0
CMA	541.4	3754.2	10634.3	24801.8	55928.6	103062.2	127421.4	105194.4	53645.0	16932.4	4201.0	1062.4	281.4	56.3	2.8	0.0	508419.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

| 4.4 | 5.1 | 5.9 | 6.0 | 5.6 | 5.7 | 6.8 | 8.8 | 11.6 | 15.8 | 22.0 | 28.7 | 36.1 | 43.4 | 51.4 | 0.0 | 7.8 |

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					25.32	2.46	58.80										11.80
45-49			38.09		25.48	28.09	35.24	75.93									29.65
50-54					26.68	29.65	35.86	34.45	35.95								30.76
55-59				17.41	6.73	15.92	32.06	63.18	29.35	149.66							38.44
60-64				29.25	57.89	2.54	56.43	58.15	72.74	70.30	247.92						55.55
65-69				59.31		39.58	125.62	51.12	217.90	239.69	264.79						130.55
70-74					79.44		104.96	106.52	75.62	213.00		770.89					108.03
75-79					281.61		104.71	142.44	57.34	81.08		273.15					88.09
80-84								308.91									11.32
CMA			3.45	6.07	26.62	19.34	42.61	54.91	72.30	143.67	120.85	441.97					43.56

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					11.49	2.02	25.36										5.89
45-49			11.77		8.20	8.94	10.96	22.46									9.38
50-54					6.15	6.72	7.91	7.64	7.93								6.93
55-59				3.29	1.89	3.09	5.22	9.31	4.86	20.69							6.06
60-64				3.62	6.20	1.23	6.06	6.22	7.53	7.31	23.25						5.99
65-69				4.63		3.42	8.69	4.13	14.34	15.67	17.21						8.99
70-74					4.32		5.38	5.45	4.16	9.90		33.20					5.51
75-79					9.02		3.98	5.06	2.63	3.31		8.78					3.51
80-84								7.00									1.22
CMA			1.58	2.01	5.79	4.41	7.23	7.26	7.24	10.10	6.50	16.42					6.60

CMA=Combined ages.
CMD=Combined durations.

Comparison of Lung Cancer Death Rates of Current Smokers
and Neversmokers for White Females Aged Between 40 and 84
21-39 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	2.4	3.5	5.2	7.6	11.1	16.3	23.9	35.1	51.4

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	5
45-49	0	0	1	0	0	2	7	3	0	0	0	0	0	0	0	0	13
50-54	0	0	0	0	0	2	9	11	0	0	0	0	0	0	0	0	22
55-59	0	0	0	0	2	1	3	7	8	1	0	0	0	0	0	0	22
60-64	0	0	0	0	0	0	6	5	9	4	1	0	0	0	0	0	25
65-69	0	0	0	0	0	1	1	6	5	2	1	0	0	0	0	0	16
70-74	0	0	0	0	0	0	1	0	0	3	3	0	0	0	0	0	7
75-79	0	0	0	0	0	0	1	0	3	0	0	1	0	0	0	0	5
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CMA	0	0	1	0	3	10	28	32	25	10	5	1	0	0	0	0	115

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	16.6	129.8	474.0	1710.3	5853.9	7467.3	755.2	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16411.1
45-49	21.5	123.9	430.4	1192.3	3567.5	10748.8	12025.3	1259.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29374.1
50-54	27.4	156.8	380.5	919.2	2057.6	5728.7	14152.9	12389.2	1179.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	36994.3
55-59	10.4	95.3	313.1	666.4	1314.5	2727.0	6276.9	11760.9	7628.5	537.3	1.3	0.0	0.0	0.0	0.0	0.0	31331.6
60-64	0.0	38.9	186.7	371.1	728.2	1419.3	2523.5	4388.3	5435.9	2466.3	161.2	5.0	0.0	0.0	0.0	0.0	17724.2
65-69	0.0	0.0	52.3	180.1	314.4	611.0	1101.3	1631.7	1838.5	1535.8	558.8	50.4	4.0	0.0	0.0	0.0	7878.3
70-74	0.0	0.0	0.0	49.3	109.1	189.3	394.8	591.7	658.1	481.6	357.8	143.2	20.8	2.0	0.0	0.0	2997.6
75-79	0.0	0.0	0.0	0.0	28.7	70.2	102.6	164.6	188.5	117.4	93.0	86.3	27.7	4.5	0.0	0.0	883.3
80-84	0.0	0.0	0.0	0.0	0.0	12.9	24.3	26.8	38.4	27.1	16.5	14.9	15.2	7.1	3.0	0.0	188.3
CMA	75.9	544.8	1837.0	5088.6	13973.8	28974.5	37356.8	32218.4	16971.9	5168.4	1188.5	299.8	67.7	13.6	3.0	0.0	143782.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
4.4	5.0	5.4	5.2	4.6	4.8	6.0	7.9	10.6	14.3	19.9	27.0	34.2	42.0	51.4	0.0	7.0

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					14.67	51.15											28.05
45-49			228.80			15.07	54.67	234.68									40.72
50-54						29.73	58.41	83.60									54.28
55-59					144.55	29.07	40.19	51.92	97.27	178.53							62.62
60-64							226.62	102.80	154.42	151.05							129.91
65-69						147.33	74.47	351.39	255.63	113.89	162.61						186.75
70-74							229.33				599.00	814.63					209.58
75-79										1556.41							530.94
80-84																	
CMA			49.02		16.87	29.68	68.91	91.40	136.75	179.22	400.83	306.58					72.94

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					7.08	22.20											12.62
45-49			65.68			5.26	16.45	67.34									12.51
50-54						6.73	12.26	17.12									11.47
55-59					20.02	4.82	6.29	7.83	13.80	24.49							9.24
60-64							21.34	10.23	14.86	14.56							12.66
65-69						10.02	5.56	22.51	16.65	7.97	10.96						12.43
70-74							10.58				26.02	35.02					9.75
75-79										45.34							16.13
80-84																	
CMA			10.05		4.67	7.15	12.40	12.54	13.96	13.57	21.18	12.34					11.36

CMA=Combined ages.
CMD=Combined durations.

Comparison of Lung Cancer Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

40+ cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	2.4	3.5	5.2	7.6	11.1	16.3	23.9	35.1	51.4

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
45-49	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	5
50-54	0	0	0	0	1	0	4	3	2	0	0	0	0	0	0	0	10
55-59	0	0	1	0	0	0	1	7	9	2	0	0	0	0	0	0	20
60-64	0	0	0	0	0	0	2	0	3	3	0	0	0	0	0	0	8
65-69	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	3
70-74	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	3
75-79	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CMA	0	0	1	0	1	6	9	12	14	7	0	1	0	0	0	0	51

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	17.0	50.8	147.1	569.4	1945.5	2472.4	298.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5503.2
45-49	15.0	75.3	160.3	392.6	1147.0	3499.3	3981.3	499.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9772.4
50-54	10.3	64.6	183.3	342.3	732.5	1971.5	4861.1	4330.6	537.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	13034.8
55-59	4.4	47.9	135.9	276.6	517.3	1023.0	2286.0	4217.5	2948.2	309.2	0.0	0.0	0.0	0.0	0.0	0.0	11766.0
60-64	0.0	14.0	68.8	172.5	322.8	571.7	935.1	1624.3	2099.4	1037.8	95.6	0.0	0.0	0.0	0.0	0.0	6941.8
65-69	0.0	0.0	27.2	77.8	123.5	236.8	455.4	616.2	700.8	648.3	291.3	20.6	1.0	0.0	0.0	0.0	3199.0
70-74	0.0	0.0	0.0	23.0	52.8	63.4	129.8	229.2	246.6	219.3	147.8	79.8	12.2	1.0	0.0	0.0	1204.8
75-79	0.0	0.0	0.0	0.0	20.8	30.9	28.5	54.1	79.2	65.3	33.2	34.3	15.7	4.0	0.3	0.0	366.2
80-84	0.0	0.0	0.0	0.0	0.0	4.5	7.4	13.0	13.6	19.1	4.3	1.4	5.0	0.3	0.0	0.0	68.6
CMA	46.7	252.6	722.6	1854.3	4862.2	9873.5	12963.3	11586.8	6627.3	2299.9	572.2	136.1	33.8	5.3	0.3	0.0	51856.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

3.9	4.9	5.7	5.6	5.0	5.0	6.1	8.0	10.5	14.4	18.8	25.9	32.9	33.8	35.1	0.0	7.3

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44						36.03											15.76
45-49						82.20	46.70										47.63
50-54					131.33		77.10	64.09	366.85								71.53
55-59							36.14	158.37	297.67	639.30							162.38
60-64							202.74		131.75	277.94							104.10
65-69						405.90		145.96		137.91							77.45
70-74								412.42		431.98							225.07
75-79																	238.00
80-84																	
CMA			132.70		15.61	55.76	63.18	95.58	200.77	290.00							91.03

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44						16.76											7.53
45-49						24.23	14.20										14.46
50-54					26.33		15.87	13.36	71.74								14.79
55-59							5.75	21.83	40.16	85.10							22.36
60-64							19.19		12.82	25.94							10.34
65-69						25.85		9.94		9.44							5.74
70-74								18.22		19.04							10.40
75-79																	7.78
80-84																	
CMA			24.30		4.15	12.14	11.29	12.97	20.16	21.19							13.43

CMA=Combined ages.
CMD=Combined durations.

Comparison of Lung Cancer Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

Current smokers of any number of cigarettes

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	2.4	3.5	5.2	7.6	11.1	16.3	23.9	35.1	51.4

Observed deaths for smokers based on age groups \ durations (years)
Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	8	7	1	0	0	0	0	0	0	0	0	0	16
45-49	0	0	2	0	4	18	28	5	0	0	0	0	0	0	0	0	57
50-54	0	0	0	0	6	13	44	36	6	0	0	0	0	0	0	0	105
55-59	0	0	2	2	5	7	21	51	32	5	0	0	0	0	0	0	125
60-64	0	0	1	1	6	2	24	33	39	16	2	0	0	0	0	0	124
65-69	0	0	1	2	4	9	11	15	29	21	7	0	0	0	0	0	99
70-74	0	0	0	1	1	2	6	8	7	10	5	6	0	0	0	0	46
75-79	0	0	0	0	1	0	4	3	7	2	2	4	0	0	0	0	23
80-84	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	5
CMA	0	0	6	6	35	58	141	154	120	54	16	10	0	0	0	0	600

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
40-44	1104.3	4043.2	8113.1	21698.6	54405.9	57472.9	4341.8	28.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	151208.5
45-49	1629.9	6193.4	10723.3	19058.3	44586.0	102808.7	94744.3	7006.4	37.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	286787.7
50-54	1562.9	6689.1	12970.8	19558.5	32395.2	72038.2	137144.0	100510.3	6775.8	39.5	0.0	0.0	0.0	0.0	0.0	0.0	389884.3
55-59	789.3	5422.8	11363.7	16949.3	24985.0	41468.0	78361.0	114777.3	63079.1	3635.7	37.9	0.0	0.0	0.0	0.0	0.0	360689.1
60-64	0.0	2197.3	8255.5	11221.7	16547.5	24350.0	36819.5	53736.7	54691.7	21985.2	1244.3	28.4	0.0	0.0	0.0	0.0	231077.7
65-69	0.0	0.0	3138.9	7647.5	8748.9	13145.7	18521.5	23421.2	23162.7	16569.9	5764.2	469.3	22.3	0.0	0.0	0.0	120612.0
70-74	0.0	0.0	0.0	2803.7	5589.4	5732.6	8548.8	10269.4	10189.3	7227.5	4646.9	1884.3	229.6	12.4	0.0	0.0	57133.9
75-79	0.0	0.0	0.0	0.0	1977.6	3368.6	3178.0	4094.6	3983.8	3196.3	1870.7	1320.2	601.5	98.0	3.3	0.0	23692.5
80-84	0.0	0.0	0.0	0.0	0.0	1039.9	1468.3	1215.6	1258.6	980.5	741.3	435.2	355.8	161.9	32.8	2.0	7691.9
CMA	5086.4	24745.8	54585.3	98937.6	189235.5	321424.5	383127.3	315060.3	163176.2	53634.6	14305.3	4137.3	1209.3	272.3	36.0	2.0	1628977.5

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

4.4	5.4	6.5	6.7	6.2	6.2	7.2	9.1	12.0	16.4	22.6	29.4	37.4	44.3	50.0	51.4	8.2

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					12.29	9.77	20.62										8.17
45-49			15.11		5.43	13.97	26.02	67.83									16.34
50-54					13.34	12.86	26.90	30.63	83.36								21.75
55-59			9.97	4.20	12.41	9.28	19.20	36.83	43.13	129.92							27.04
60-64			0.97	-2.23	25.12	-2.93	54.04	50.27	60.17	61.63	149.60						42.52
65-69			15.52	9.82	29.39	52.13	43.06	47.71	108.87	110.40	105.11						65.75
70-74				11.72	-6.05	10.94	46.24	53.96	44.76	114.42	83.65	294.47					56.57
75-79					15.47		90.77	38.17	140.61	27.47	71.82	267.89					61.96
80-84							84.76	195.35									13.55
CMA			4.50	-0.68	12.27	11.87	29.61	39.83	61.58	84.29	89.24	212.26					28.68

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					6.09	5.05	9.54										4.38
45-49			5.27		2.54	4.95	8.35	20.17									5.62
50-54					3.57	3.48	6.19	6.91	17.08								5.19
55-59			2.31	1.55	2.63	2.22	3.53	5.85	6.67	18.09							4.56
60-64			1.09	0.80	3.25	0.74	5.85	5.51	6.40	6.53	14.43						4.82
65-69			1.95	1.60	2.80	4.19	3.64	3.92	7.67	7.76	7.43						5.03
70-74				1.49	0.75	1.46	2.93	3.25	2.87	5.78	4.49	13.30					3.36
75-79					1.44		3.59	2.09	5.01	1.78	3.05	8.63					2.77
80-84							2.65	4.80									1.26
CMA			1.69	0.90	2.97	2.92	5.11	5.40	6.15	6.14	4.95	8.21					4.52

CMA=Combined ages.
CMD=Combined durations.

Comparison of Coronary Heart Disease Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

1-9 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	10.6	21.0	41.5	81.9	161.8	319.6	631.2	1246.6	2461.9

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
45-49	0	0	2	2	5	6	4	0	0	0	0	0	0	0	0	0	19
50-54	0	2	5	2	6	6	15	7	1	0	0	0	0	0	0	0	44
55-59	0	2	4	5	5	10	21	27	9	1	0	0	0	0	0	0	84
60-64	0	1	9	9	6	12	16	26	23	10	3	0	0	0	0	0	115
65-69	0	0	5	10	11	22	27	20	23	11	6	1	0	0	0	0	136
70-74	0	0	0	9	25	12	19	18	17	12	12	9	0	0	0	0	133
75-79	0	0	0	0	14	29	19	24	19	14	15	4	2	1	0	0	141
80-84	0	0	0	0	0	10	26	8	16	17	6	6	4	4	1	0	98
CMA	0	5	26	37	72	107	148	130	108	65	42	20	6	5	1	0	772

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	709.3	2091.8	3221.0	6111.7	11643.1	10203.1	667.3	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34653.1
45-49	1080.5	3437.5	4635.5	6261.3	11346.4	20786.1	16442.0	945.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64960.7
50-54	1046.6	3987.8	6165.6	7067.4	9590.8	17192.7	27229.5	17452.5	904.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	90645.0
55-59	467.5	3251.3	5824.0	6617.8	8002.3	11305.3	18212.4	23225.2	11331.1	575.8	13.9	0.0	0.0	0.0	0.0	0.0	89046.7
60-64	0.0	1334.5	4569.5	4904.3	5913.2	7083.5	9539.7	12597.9	11676.7	4341.5	282.3	9.9	0.0	0.0	0.0	0.0	62354.9
65-69	0.0	0.0	1921.2	4077.8	3524.4	4485.3	5289.4	6171.6	5796.7	4025.3	1345.9	158.8	7.2	0.0	0.0	0.0	36803.3
70-74	0.0	0.0	0.0	1620.6	2676.8	2302.6	2951.9	3145.5	3035.7	2082.8	1348.6	595.2	82.2	3.3	0.0	0.0	20044.9
75-79	0.0	0.0	0.0	0.0	1077.9	1689.2	1265.3	1472.6	1402.3	1128.5	607.2	507.3	239.6	36.2	1.0	0.0	9427.1
80-84	0.0	0.0	0.0	0.0	0.0	572.8	754.3	490.6	504.0	414.5	304.0	187.3	165.3	67.4	8.0	1.0	3469.0
CMA	3323.8	14102.8	26436.8	36680.8	53974.8	75620.3	82351.8	65507.0	34658.7	12576.6	3901.8	1458.4	494.2	106.8	9.0	1.0	411404.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

	34.2	52.6	84.5	113.0	123.4	128.7	139.7	178.4	277.4	459.5	726.2	1043.2	1537.2	1994.8	2326.9	2461.9	164.3

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			20.41				139.23										-4.87
45-49			22.14	10.83	23.06	7.86	3.32										8.24
50-54		8.66	39.60	-13.19	21.07	-6.59	13.59	-1.38	69.13								7.06
55-59		-20.43	-13.26	-8.61	-19.46	6.51	33.36	34.31	-2.52	91.72							12.39
60-64		-66.90	30.90	21.68	-60.37	7.57	5.89	44.55	35.10	68.50	901.05						22.59
65-69			-59.35	-74.38	-7.50	170.88	190.84	4.45	77.17	-46.34	126.18						49.92
70-74			-75.85	237.83		-110.06	12.44	-58.96	-71.20	-55.05	258.61	860.97					32.30
75-79				52.21		470.23	254.99	383.20	108.29	-6.01	1223.90	-456.15	-411.81				249.10
80-84						-715.96	985.21	-831.21	712.68	1639.41	-488.24	742.35	-41.35				363.10
CMA		-17.18	13.83	-12.71	10.02	12.77	39.99	20.04	34.22	57.36	350.21	328.13	-323.07				23.36

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			2.92				14.09										0.54
45-49			2.05	1.52	2.10	1.37	1.16										1.39
50-54		1.21	1.95	0.68	1.51	0.84	1.33	0.97	2.67								1.17
55-59		0.75	0.84	0.89	0.76	1.08	1.41	1.42	0.97	2.12							1.15
60-64		0.46	1.19	1.13	0.63	1.05	1.04	1.28	1.22	1.42	6.57						1.14
65-69			0.81	0.77	0.98	1.53	1.60	1.01	1.24	0.86	1.39						1.16
70-74				0.88	1.38	0.83	1.02	0.91	0.89	0.91	1.41	2.40					1.05
75-79				1.04		1.38	1.20	1.31	1.09	1.00	1.98	0.63	0.67				1.20
80-84						0.71	1.40	0.66	1.29	1.67	0.80	1.30	0.98				1.15
CMA		0.67	1.16	0.89	1.08	1.10	1.29	1.11	1.12	1.12	1.48	1.31	0.79				1.14

CMA=Combined ages.
CMD=Combined durations.

Comparison of Coronary Heart Disease Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

10-19 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	10.6	21.0	41.5	81.9	161.8	319.6	631.2	1246.6	2461.9

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	2	4	1	1	0	0	0	0	0	0	0	0	0	8
45-49	0	0	1	1	4	16	15	0	0	0	0	0	0	0	0	0	37
50-54	0	0	7	1	9	20	30	25	1	0	0	0	0	0	0	0	93
55-59	0	1	5	6	16	23	49	50	37	3	0	0	0	0	0	0	190
60-64	0	1	6	6	15	28	42	55	43	25	3	0	0	0	0	0	224
65-69	0	0	3	11	14	33	36	45	46	30	10	1	0	0	0	0	229
70-74	0	0	0	7	17	14	28	38	36	27	19	5	0	0	0	0	191
75-79	0	0	0	0	12	18	24	25	26	19	10	7	2	0	0	0	143
80-84	0	0	0	0	0	6	17	19	9	7	8	6	1	0	1	0	74
CMA	0	2	22	34	91	159	242	257	198	111	50	19	3	0	1	0	1189

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	239.5	1039.5	2406.6	6950.7	16936.8	16826.9	986.8	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45394.8
45-49	332.4	1554.7	3095.0	5997.3	14740.5	32996.0	28767.3	1785.4	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89279.5
50-54	329.1	1687.4	3649.4	6198.0	10600.4	24183.5	44607.8	31016.3	1724.5	13.0	0.0	0.0	0.0	0.0	0.0	0.0	124009.4
55-59	197.6	1286.8	3013.9	5189.8	8175.5	13661.1	26372.8	37425.8	19522.1	941.7	13.1	0.0	0.0	0.0	0.0	0.0	115800.0
60-64	0.0	523.1	2070.4	3297.8	5237.7	7969.3	11981.5	17808.8	17595.7	6772.3	319.3	6.0	0.0	0.0	0.0	0.0	73581.8
65-69	0.0	0.0	719.3	1989.8	2687.2	4235.6	6039.8	7589.8	7569.0	5282.9	1789.5	103.8	3.2	0.0	0.0	0.0	38009.8
70-74	0.0	0.0	0.0	688.7	1583.6	1843.7	2745.0	3237.1	3235.8	2333.7	1445.7	563.0	51.5	4.0	0.0	0.0	17731.7
75-79	0.0	0.0	0.0	0.0	534.4	996.2	1066.3	1276.8	1232.1	1024.4	628.3	367.8	176.0	29.4	2.0	0.0	7333.8
80-84	0.0	0.0	0.0	0.0	0.0	281.8	446.8	405.7	385.1	289.3	246.0	140.1	101.5	56.9	19.0	1.0	2373.1
CMA	1098.6	6091.4	14954.6	30312.1	60496.1	102994.0	123014.0	100553.7	51275.3	16657.3	4441.8	1180.7	332.2	90.3	21.0	1.0	513513.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
35.8	49.9	70.5	82.0	82.2	84.8	102.9	142.5	223.6	379.7	658.8	1010.4	1513.7	1985.1	2346.2	2461.9	130.9

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				18.14	12.98	-4.70	90.70										6.98
45-49			11.30	-4.34	6.13	27.48	31.13										20.43
50-54			150.32	-25.36	43.41	41.21	25.76	39.11	16.49								33.50
55-59		-4.23	83.95	33.67	113.76	86.42	103.85	51.65	107.58	236.64							82.13
60-64		29.34	127.96	20.10	124.55	189.51	188.70	147.00	82.54	207.31	777.87						142.59
65-69			97.49	233.20	201.38	459.50	276.43	273.29	288.13	248.26	239.20						282.86
70-74				385.25	442.30	128.15	388.83	542.69	481.33	525.77	683.06	256.89					445.96
75-79					998.85	560.34	1004.11	711.38	863.66	608.12	345.13	656.44	-110.23				703.30
80-84						-333.00	1343.34	2221.73	-124.76	-41.87	790.11						656.39
CMA		-17.05	76.63	30.13	68.24	69.54	93.83	113.04	162.56	286.70	466.93	598.89	-610.55				100.63

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				2.70	2.22	0.56	9.53										1.66
45-49			1.54	0.79	1.29	2.31	2.48										1.97
50-54			4.62	0.39	2.05	1.99	1.62	1.94	1.40								1.81
55-59		0.95	2.02	1.41	2.39	2.05	2.27	1.63	2.31	3.89							2.00
60-64		1.18	1.79	1.12	1.77	2.17	2.17	1.91	1.51	2.28	5.81						1.88
65-69			1.31	1.73	1.63	2.44	1.86	1.86	1.90	1.76	1.75						1.89
70-74				1.61	1.70	1.20	1.62	1.86	1.76	1.83	2.08	1.41					1.71
75-79					1.80	1.45	1.81	1.57	1.69	1.49	1.28	1.53	0.91				1.56
80-84						0.86	1.55	1.90	0.95	0.98	1.32						1.27
CMA		0.66	2.09	1.37	1.83	1.82	1.91	1.79	1.73	1.76	1.71	1.59	0.60				1.77

CMA=Combined ages.
CMD=Combined durations.

Comparison of Coronary Heart Disease Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84
20 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	10.6	21.0	41.5	81.9	161.8	319.6	631.2	1246.6	2461.9

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	1	4	8	1	0	0	0	0	0	0	0	0	0	14
45-49	0	0	0	4	10	11	17	3	0	0	0	0	0	0	0	0	45
50-54	0	1	1	4	15	23	45	44	4	0	0	0	0	0	0	0	137
55-59	0	2	3	4	12	17	53	62	63	4	0	0	0	0	0	0	220
60-64	0	0	5	9	12	25	40	53	61	24	3	0	0	0	0	0	232
65-69	0	0	1	6	18	32	43	40	36	37	13	2	0	0	0	0	228
70-74	0	0	0	7	14	18	27	40	28	26	12	10	0	0	0	0	182
75-79	0	0	0	0	5	10	7	18	17	17	6	5	2	0	0	0	87
80-84	0	0	0	0	0	2	10	7	7	6	9	1	3	1	1	0	47
CMA	0	3	10	35	90	146	243	267	216	114	43	18	5	1	1	0	1192

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
40-44	122.0	731.3	1864.4	6356.6	18026.6	20503.2	1633.8	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49246.3
45-49	180.5	1002.0	2402.1	5194.9	13784.6	34778.5	33528.6	2516.8	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93401.0
50-54	149.6	992.5	2591.9	5031.6	9413.9	22961.8	46292.8	35321.8	2430.8	14.3	0.0	0.0	0.0	0.0	0.0	0.0	125200.8
55-59	69.3	741.5	2096.8	3998.7	6975.3	12751.7	25212.9	38148.0	21649.3	1271.8	9.7	0.0	0.0	0.0	0.0	0.0	112944.8
60-64	0.0	286.8	1260.2	2475.9	4345.8	7306.3	11639.8	17317.4	17882.0	7367.3	386.0	7.5	0.0	0.0	0.0	0.0	70475.0
65-69	0.0	0.0	419.0	1322.0	2099.4	3577.0	5635.6	7411.9	7257.7	5077.6	1778.6	135..	7.0	0.0	0.0	0.0	34721.5
70-74	0.0	0.0	0.0	422.2	967.3	1333.6	2327.3	3066.0	3013.1	2110.2	1347.2	503.3	62.9	2.2	0.0	0.0	15155.0
75-79	0.0	0.0	0.0	0.0	315.8	562.2	715.3	1126.5	1081.8	860.8	509.1	324.4	142.6	23.9	0.0	0.0	5662.2
80-84	0.0	0.0	0.0	0.0	0.0	167.9	235.6	277.5	317.5	230.6	170.5	91.5	68.9	30.3	2.8	0.0	1593.0
CMA	541.4	3754.2	10634.3	24801.8	55928.6	103962.2	127421.4	105194.4	53645.0	16932.4	4201.0	1062.4	281.4	56.3	2.8	0.0	508419.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

34.4	47.2	64.7	72.7	68.3	69.8	89.2	131.6	207.3	348.0	603.8	933.7	1383.6	1875.5	2461.9	0.0	118.0

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				5.09	11.55	28.38	50.57										17.79
45-49				55.99	51.53	10.62	29.69	98.19									27.17
50-54		59.26	-2.91	38.00	117.85	58.67	55.71	83.08	123.07								67.93
55-59		187.78	61.13	18.09	90.09	51.37	128.26	80.58	209.06	232.58							112.84
60-64			234.94	201.67	114.30	180.33	176.01	144.21	179.29	163.93	615.37						167.36
65-69			-60.95	134.25	537.77	574.99	443.40	220.06	176.41	409.08	411.31						337.04
70-74				1026.90	816.19	718.54	528.96	673.42	298.07	600.92	259.55	1355.87					569.71
75-79					336.94	471.13	-267.91	351.28	324.94	728.43	-68.00	294.64					284.52
80-84						-1270.8	1782.86	60.60	-257.20	140.18	2816.67						488.49
CMA		32.71	29.38	68.43	92.58	70.67	101.50	122.26	195.34	325.26	419.80	760.59	393.15				116.42

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				1.48	2.09	3.67	5.75										2.67
45-49				3.66	3.45	1.51	2.41	5.67									2.29
50-54		2.43	0.93	1.92	3.84	2.41	2.34	3.00	3.97								2.64
55-59		3.29	1.75	1.22	2.10	1.63	2.57	1.98	3.55	3.84							2.38
60-64			2.45	2.25	1.71	2.11	2.09	1.89	2.11	2.01	4.80						2.03
65-69			0.75	1.42	2.68	2.80	2.39	1.69	1.55	2.28	2.29						2.05
70-74				2.63	2.29	2.14	1.84	2.07	1.47	1.95	1.41	3.15					1.90
75-79					1.27	1.38	0.79	1.26	1.26	1.58	0.95	1.24					1.23
80-84						0.48	1.72	1.02	0.90	1.06	2.14						1.20
CMA		1.69	1.45	1.94	2.35	2.01	2.14	1.93	1.94	1.93	1.70	1.81	1.28				1.99

CMA=Combined ages.
CMD=Combined durations.

Comparison of Coronary Heart Disease Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

21-39 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	10.6	21.0	41.5	81.9	161.8	319.6	631.2	1246.6	2461.9

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	1	3	3	1	0	0	0	0	0	0	0	0	0	8
45-49	0	0	0	0	1	7	5	1	0	0	0	0	0	0	0	0	14
50-54	0	0	0	1	2	6	17	18	3	0	0	0	0	0	0	0	47
55-59	0	0	0	2	3	5	9	23	15	2	0	0	0	0	0	0	59
60-64	0	0	0	2	3	3	13	18	20	8	0	0	0	0	0	0	67
65-69	0	0	0	2	5	6	6	8	10	5	4	1	0	0	0	0	47
70-74	0	0	0	0	1	1	8	9	9	6	4	1	0	0	0	0	39
75-79	0	0	0	0	0	0	5	4	6	4	2	1	0	0	0	0	22
80-84	0	0	0	0	0	0	0	0	1	2	1	0	3	0	0	0	7
CMA	0	0	0	8	18	31	64	81	64	27	11	3	3	0	0	0	310

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	16.6	129.8	474.0	1710.3	5853.9	7467.3	755.2	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16411.1
45-49	21.5	123.9	430.4	1192.3	3567.5	10748.8	12025.3	1259.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29374.1
50-54	27.4	156.8	380.5	919.2	2057.6	5728.7	14152.9	12389.2	1179.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	36994.3
55-59	10.4	95.3	313.1	666.4	1314.5	2727.0	6276.9	11760.9	7628.5	537.3	1.3	0.0	0.0	0.0	0.0	0.0	31331.6
60-64	0.0	38.9	186.7	371.1	728.2	1419.3	2523.5	4388.3	5435.9	2466.3	161.2	5.0	0.0	0.0	0.0	0.0	17724.2
65-69	0.0	0.0	52.3	180.1	314.4	611.0	1101.3	1631.7	1838.5	1535.8	558.8	50.4	4.0	0.0	0.0	0.0	7878.3
70-74	0.0	0.0	0.0	49.3	109.1	189.3	394.8	591.7	656.1	481.6	357.8	143.2	20.8	2.0	0.0	0.0	2997.6
75-79	0.0	0.0	0.0	0.0	28.7	70.2	102.6	164.6	188.5	117.4	93.0	86.3	27.7	4.5	0.0	0.0	883.3
80-84	0.0	0.0	0.0	0.0	0.0	12.9	24.3	28.8	38.4	27.1	16.5	14.9	15.2	7.1	3.0	0.0	188.3
CMA	75.9	544.8	1837.0	5088.6	13973.8	28974.5	37356.8	32216.4	16971.9	5168.4	1188.5	299.8	67.7	13.6	3.0	0.0	143782.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
	34.5	45.2	55.8	55.9	46.7	49.4	68.5	105.1	170.1	280.8	494.0	839.1	1274.7	1789.7	2461.9	0.0	95.5

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				47.83	40.61	29.54	121.78										38.11
45-49					7.02	44.11	20.57	58.40									26.65
50-54				67.30	55.71	63.24	78.62	103.80	212.96								85.55
55-59				218.17	146.28	101.41	61.44	113.62	114.69	290.32							106.36
60-64				377.13	250.16	49.54	353.32	248.35	206.09	162.54							216.18
65-69				790.98	1270.63	662.38	225.22	170.68	224.31	5.94	396.16						276.96
70-74							1394.96	889.92	736.40	614.68	486.89						669.84
75-79								1183.79	1936.43								1243.96
80-84																	1256.54
CMA				101.27	82.06	57.63	102.80	146.33	207.02	241.63	431.50	161.69					120.06

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				5.50	4.82	3.78	12.45										4.58
45-49					1.33	3.10	1.98	3.78									2.27
50-54				2.62	2.34	2.52	2.89	3.50	6.13								3.06
55-59				3.66	2.79	2.24	1.75	2.39	2.40	4.54							2.30
60-64				3.33	2.55	1.31	3.18	2.53	2.27	2.00							2.34
65-69				3.47	4.98	3.07	1.70	1.53	1.70	1.02	2.24						1.87
70-74							3.21	2.41	2.17	1.97	1.77						2.06
75-79								1.95	2.55								2.00
80-84																	1.51
CMA				2.81	2.76	2.17	2.50	2.39	2.22	1.86	1.87	1.19					2.26

CMA=Combined ages.
CMD=Combined durations.

Comparison of Coronary Heart Disease Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

40+ cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	10.6	21.0	41.5	81.9	161.8	319.6	631.2	1246.6	2461.9

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
45-49	0	0	0	1	0	1	3	0	0	0	0	0	0	0	0	0	5
50-54	0	0	0	1	0	0	9	6	1	0	0	0	0	0	0	0	17
55-59	0	0	1	0	0	3	4	9	11	1	0	0	0	0	0	0	29
60-64	0	0	1	1	4	4	5	6	6	5	0	0	0	0	0	0	32
65-69	0	0	0	2	0	2	4	2	5	3	2	0	0	0	0	0	20
70-74	0	0	0	0	0	1	1	3	1	1	2	1	0	0	0	0	10
75-79	0	0	0	0	0	2	0	1	1	0	0	0	0	0	0	0	4
80-84	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
CMA	0	0	2	6	5	14	26	27	25	11	4	1	0	0	0	0	121

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	17.0	50.8	147.1	569.4	1945.5	2472.4	298.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5503.2
45-49	15.0	75.3	160.3	392.6	1147.0	3499.3	3961.3	499.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9772.4
50-54	10.3	64.6	183.3	342.3	732.5	1971.5	4861.1	4330.6	537.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	13034.8
55-59	4.4	47.9	135.9	276.6	517.3	1023.0	2286.0	4217.5	2948.2	309.2	0.0	0.0	0.0	0.0	0.0	0.0	11766.0
60-64	0.0	14.0	68.8	172.5	322.8	571.7	935.1	1624.3	2099.4	1037.8	95.6	0.0	0.0	0.0	0.0	0.0	6941.8
65-69	0.0	0.0	27.2	77.8	123.5	236.8	455.4	616.2	700.8	648.3	291.3	20.6	1.0	0.0	0.0	0.0	3199.0
70-74	0.0	0.0	0.0	23.0	52.8	63.4	129.8	229.2	246.6	219.3	147.8	79.8	12.2	1.0	0.0	0.0	1204.8
75-79	0.0	0.0	0.0	0.0	20.8	30.9	28.5	54.1	79.2	65.3	33.2	34.3	15.7	4.0	0.3	0.0	366.2
80-84	0.0	0.0	0.0	0.0	0.0	4.5	7.4	13.0	13.6	19.1	4.3	1.4	5.0	0.3	0.0	0.0	68.6
CMA	46.7	252.6	722.6	1854.3	4862.2	9673.5	12963.3	11586.8	6627.3	2299.9	572.2	136.1	33.8	5.3	0.3	0.0	51856.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
	27.5	43.5	60.2	63.9	55.2	53.0	70.0	107.0	168.3	290.1	443.7	758.4	1177.5	1187.2	1246.6	0.0	102.2

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				164.98	40.76	29.81											43.88
45-49				233.71		7.57	54.34										30.15
50-54				250.62			143.65	97.06	144.52								88.93
55-59						211.31	93.03	131.45	291.17	241.50							164.53
60-64					1077.51	537.87	372.88	207.55	123.96	319.98							299.14
65-69						524.86	558.70	4.97	393.82	143.11	366.89						305.58
70-74									677.88	-225.67	-175.28						198.84
75-79																	-154.19
80-84																	
CMA			216.60	259.68	47.60	88.79	130.28	126.03	208.91	188.14	255.42						131.12

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				16.51	4.83	3.80											5.12
45-49				12.12		1.36	3.59										2.44
50-54				7.04			4.46	3.34	4.48								3.14
55-59						3.58	2.14	2.60	4.55	3.95							3.01
60-64					7.66	4.32	3.30	2.28	1.77	2.98							2.85
65-69						2.64	2.75	1.02	2.23	1.45	2.15						1.96
70-74								2.07	0.64	0.72							1.32
75-79																	0.88
80-84																	
CMA			4.60	5.06	1.86	2.68	2.86	2.16	2.24	1.65	1.58						2.28

CMA=Combined ages.
CMD=Combined durations.

Comparison of Coronary Heart Disease Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

Current smokers of any number of cigarettes

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	10.6	21.0	41.5	81.9	161.8	319.6	631.2	1246.6	2461.9

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	1	5	12	13	4	0	0	0	0	0	0	0	0	0	35
45-49	0	0	3	8	20	41	44	4	0	0	0	0	0	0	0	0	120
50-54	0	3	13	9	32	55	116	100	10	0	0	0	0	0	0	0	338
55-59	0	5	13	17	36	58	136	171	135	11	0	0	0	0	0	0	582
60-64	0	2	21	27	40	72	116	158	153	72	9	0	0	0	0	0	670
65-69	0	0	9	31	48	95	116	115	120	86	35	5	0	0	0	0	660
70-74	0	0	0	23	57	46	83	108	91	72	49	26	0	0	0	0	555
75-79	0	0	0	0	31	59	55	72	69	54	33	17	6	1	0	0	397
80-84	0	0	0	0	0	18	53	34	30	33	24	13	11	5	3	0	227
CMA	0	10	60	120	276	457	723	762	611	328	150	61	17	6	3	0	3584

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	1104.3	4043.2	8113.1	21698.6	54405.9	57472.9	4341.8	28.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	151208.5
45-49	1629.9	6193.4	10723.3	19058.3	44596.0	102806.7	94744.3	7006.4	37.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	286787.7
50-54	1562.9	6889.1	12970.8	19558.5	32395.2	72038.2	137144.0	100510.3	6775.8	39.5	0.0	0.0	0.0	0.0	0.0	0.0	369684.3
55-59	789.3	5422.8	11383.7	16949.3	24985.0	41468.0	78361.0	114777.3	63079.1	3635.7	37.9	0.0	0.0	0.0	0.0	0.0	360869.1
60-64	0.0	2197.3	8255.5	11221.7	16547.5	24350.0	36819.5	53736.7	54691.7	21985.2	1244.3	28.4	0.0	0.0	0.0	0.0	231077.7
65-69	0.0	0.0	3138.9	7647.5	8748.9	13145.7	18521.5	23421.2	23162.7	16569.9	5764.2	469.3	22.3	0.0	0.0	0.0	120612.0
70-74	0.0	0.0	0.0	2803.7	5589.4	5732.6	8548.8	10269.4	10189.3	7227.5	4646.9	1884.3	229.6	12.4	0.0	0.0	57133.9
75-79	0.0	0.0	0.0	0.0	1977.6	3368.6	3176.0	4094.6	3983.8	3196.3	1870.7	1320.2	601.5	98.0	3.3	0.0	23692.5
80-84	0.0	0.0	0.0	0.0	0.0	1039.9	1468.3	1215.6	1258.6	741.3	435.2	355.8	161.9	32.8	2.0	7691.9
CMA	5086.4	24745.8	54585.3	98937.6	189235.5	321424.5	383127.3	315060.3	163176.2	53634.6	14305.3	4137.3	1209.4	272.3	36.0	2.0	1628977.5

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

| | 34.5 | 50.9 | 75.5 | 89.6 | 86.5 | 86.1 | 101.8 | 141.2 | 221.9 | 375.0 | 638.7 | 961.6 | 1470.3 | 1941.1 | 2352.2 | 2461.9 | 131.3 |

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			1.69	12.40	11.42	11.98	81.49										12.51
45-49			6.97	20.97	23.85	18.87	25.43	36.06									20.83
50-54		2.05	58.73	4.52	57.29	34.86	43.09	58.00	106.09								45.20
55-59		10.26	32.25	18.35	62.14	57.92	91.61	67.04	132.07	220.61							79.32
60-64		-70.82	92.54	78.77	79.89	133.85	153.21	132.19	117.91	165.66	561.49						128.11
65-69			-32.89	85.75	229.03	403.06	306.69	171.40	198.46	199.40	287.59	745.92					227.60
70-74				189.14	368.57	171.22	339.68	420.46	261.89	364.98	423.25	748.59					340.19
75-79					320.98	504.89	484.06	511.83	485.41	442.84	517.49	41.13	-249.08				429.04
80-84						-731.01	1147.61	335.09	160.08	903.71	775.49	525.44	629.41	626.09			489.23
CMA		-10.47	34.41	31.72	59.32	56.07	86.92	100.66	152.59	236.53	409.85	492.82	-64.43	262.07			88.73

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			1.16	2.17	2.07	2.13	8.66										2.18
45-49			1.33	2.00	2.14	1.90	2.21	2.72									1.99
50-54		1.05	2.42	1.11	2.38	1.84	2.04	2.40	3.56								2.09
55-59		1.13	1.39	1.22	1.76	1.71	2.12	1.82	2.61	3.69							1.97
60-64		0.56	1.57	1.49	1.49	1.83	1.95	1.82	1.73	2.02	4.47						1.79
65-69			0.90	1.27	1.72	2.26	1.96	1.54	1.62	1.62	1.90	3.33					1.71
70-74				1.30	1.62	1.27	1.54	1.67	1.41	1.58	1.67	2.19					1.54
75-79					1.26	1.41	1.39	1.41	1.39	1.36	1.42	1.03	0.80				1.34
80-84						0.70	1.47	1.14	1.07	1.37	1.31	1.21	1.26	1.25			1.20
CMA		0.79	1.46	1.35	1.69	1.65	1.85	1.71	1.69	1.63	1.64	1.50	0.96	1.14			1.68

CMA=Combined ages.
CMD=Combined durations.

Comparison of Cerebrovascular Disease Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

1-9 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	2.7	5.9	12.8	27.8	60.7	132.3	288.4	628.6	1370.2

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3
45-49	0	0	0	0	2	4	2	0	0	0	0	0	0	0	0	0	8
50-54	0	0	2	1	5	2	8	5	0	0	0	0	0	0	0	0	23
55-59	1	1	6	5	2	2	4	5	7	0	0	0	0	0	0	0	33
60-64	0	0	5	3	3	4	7	7	8	6	0	0	0	0	0	0	43
65-69	0	0	2	5	6	4	7	9	9	2	1	0	0	0	0	0	45
70-74	0	0	0	4	10	8	11	14	12	7	3	2	0	0	0	0	71
75-79	0	0	0	0	8	11	8	10	7	7	5	0	1	2	0	0	59
80-84	0	0	0	0	0	5	10	5	8	3	4	0	1	3	0	0	39
CMA	1	2	15	19	36	41	57	55	51	25	13	2	2	5	0	0	324

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	709.3	2091.8	3221.0	6111.7	11643.1	10203.1	667.3	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34653.1
45- 9	1080.5	3437.5	4635.5	6281.3	11346.4	20786.1	16442.0	945.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64960.7
50-54	1046.6	3967.8	6165.6	7067.4	9590.8	17192.7	27229.5	17452.5	904.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	90645.0
55-59	487.5	3251.3	5824.0	6617.8	8002.3	11305.3	18212.4	23225.2	11331.1	575.8	13.9	0.0	0.0	0.0	0.0	0.0	89046.7
60-64	0.0	1334.5	4669.5	4904.3	5913.2	7083.5	9539.7	12597.9	11678.7	4341.5	282.3	9.9	0.0	0.0	0.0	0.0	62354.9
65-69	0.0	0.0	1921.2	4077.8	3524.4	4485.3	5289.4	6171.6	5796.7	4025.3	1345.9	158.8	7.2	0.0	0.0	0.0	36803.3
70-74	0.0	0.0	0.0	1620.6	2876.8	2302.6	2951.9	3145.5	3035.7	2082.8	1348.6	595.2	82.2	3.3	0.0	0.0	20044.9
75-79	0.0	0.0	0.0	0.0	1077.9	1689.2	1265.3	1472.6	1602.3	1128.5	607.2	507.3	239.6	36.2	1.0	0.0	9427.1
80-84	0.0	0.0	0.0	0.0	0.0	572.8	754.3	490.6	504.0	414.5	304.0	187.3	165.3	67.4	8.0	1.0	3469.0
CMA	3323.8	14102.8	26436.8	36680.8	53974.8	75620.3	82351.8	65507.0	34658.7	12576.6	3901.8	1458.4	494.2	106.8	9.0	1.0	411404.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

10.6	17.6	30.8	44.4	51.4	55.8	59.6	75.7	122.6	213.9	354.4	527.1	812.8	1066.2	1287.8	1370.2	71.0

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44		45.12		13.67		7.11											5.97
45-49				11.77	13.38	6.30											6.45
50-54			19.66	1.38	39.36	-1.14	16.61	15.88									12.60
55-59	177.28	2.91	75.18	45.49	-2.85	-10.15	-5.88	-6.32	33.93								9.22
60-64			46.38	0.48	-9.96	-4.22	12.68	-5.13	7.81	77.51							8.27
65-69			-28.20	-9.68	37.94	-43.12	0.04	13.53	22.96	-82.61	-58.00						-10.03
70-74				-41.56	59.23	59.05	84.26	156.70	106.92	47.71	-65.93	47.66					65.82
75-79				113.57		22.60	3.64	50.47	-129.44	-8.31	194.89		-211.21				-2.75
80-84						-497.23	-44.39	-351.02	217.09	-646.45	-54.42						-245.97
CMA	19.50	-3.42	25.94	7.11	15.28	-1.56	9.57	8.22	24.52	-15.12	-21.19	-389.96	-406.11				7.72

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44		17.78		6.09		3.65											3.22
45-49					3.01	3.28	2.08										2.10
50-54			2.54	1.11	4.08	0.91	2.30	2.24									1.99
55-59	7.37	1.10	3.70	2.63	0.90	0.64	0.79	0.77	2.22								1.33
60-64			1.76	1.01	0.84	0.93	1.21	0.92	1.13	2.28							1.14
65-69			0.79	0.93	1.29	0.67	1.00	1.10	1.17	0.38	0.56						0.92
70-74				0.86	1.21	1.20	1.29	1.54	1.37	1.17	0.77	1.17					1.23
75-79				1.18		1.04	1.01	1.08	0.79	0.99	1.31		0.66				1.00
80-6						0.64	0.97	0.74	1.16	0.53	0.96						0.82
CMA	2.84	0.81	1.84	1.16	1.30	0.97	1.16	1.11	1.20	0.93	0.94	0.26	0.50				1.11

CMA=Combined ages.
CMD=Combined durations.

Comparison of Cerebrovascular Disease Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84
10-19 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	2.7	5.9	12.8	27.8	60.7	132.3	288.4	628.6	1370.2

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	6
45-49	0	0	0	0	5	4	8	2	0	0	0	0	0	0	0	0	19
50-54	0	1	2	0	4	13	21	13	0	0	0	0	0	0	0	0	54
55-59	0	1	1	5	7	4	11	27	14	0	0	0	0	0	0	0	70
60-64	0	0	1	2	8	16	15	17	22	15	0	0	0	0	0	0	96
65-69	0	0	2	3	6	5	12	12	19	13	3	0	1	0	0	0	76
70-74	0	0	0	0	2	5	8	9	8	11	5	4	0	0	0	0	52
75-79	0	0	0	0	6	5	10	10	7	5	7	1	1	0	0	0	52
80-84	0	0	0	0	0	4	6	8	1	5	3	2	2	2	0	0	33
CMA	0	2	6	12	39	59	91	98	71	49	18	7	4	2	0	0	458

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	239.5	1039.5	2406.6	6950.7	16906.8	16826.9	966.8	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45394.8
45-49	332.4	1554.7	3095.0	5997.3	14740.5	32996.0	28767.3	1785.4	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89279.5
50-54	329.1	1687.4	3649.4	6198.0	10600.4	24183.5	44607.8	31016.3	1724.5	13.0	0.0	0.0	0.0	0.0	0.0	0.0	124009.4
55-59	197.6	1286.8	3013.9	5169.8	8175.5	13661.1	26372.8	37425.8	19522.1	941.7	13.1	0.0	0.0	0.0	0.0	0.0	115800.0
60-64	0.0	523.1	2070.4	3297.8	5237.7	7969.3	11981.5	17808.8	17595.7	6772.3	319.3	6.0	0.0	0.0	0.0	0.0	73581.8
65-69	0.0	0.0	719.3	1989.8	2687.2	4235.6	6039.8	7589.8	7569.0	5282.9	1789.5	103.8	3.2	0.0	0.0	0.0	38009.8
70-74	0.0	0.0	0.0	688.7	1583.6	1843.7	2745.0	3237.1	3235.8	2333.7	1445.7	563.0	51.5	4.0	0.0	0.0	17731.7
75-79	0.0	0.0	0.0	0.0	534.4	996.2	1066.3	1276.8	1232.1	1024.4	628.3	307.8	176.0	29.4	2.0	0.0	7333.8
80-84	0.0	0.0	0.0	0.0	0.0	281.8	446.8	405.7	385.1	289.3	246.0	140.1	101.5	56.9	19.0	1.0	2373.1
CMA	1098.6	6091.4	14954.6	30312.1	60496.1	102994.0	123014.0	100553.7	51275.3	16657.3	4441.8	1180.7	332.2	90.3	21.0	1.0	513513.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

11.2	16.6	25.1	31.0	32.4	34.1	41.3	57.9	95.0	171.1	316.4	507.9	797.7	1080.8	1299.6	1370.2	54.4

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				26.09	3.22	15.14											10.53
45-49					28.06	6.26	21.95	106.16									15.42
50-54		46.49	42.03		24.96	40.98	34.30	29.14									30.77
55-59		49.87	5.34	68.50	57.78	1.44	13.87	44.30	43.87								32.60
60-64			-12.39	-0.05	92.05	140.08	64.50	34.76	64.34	160.80							69.77
65-69			145.77	18.47	90.98	-14.25	66.38	25.81	118.73	113.78	35.35						67.65
70-74					-162.09	-17.18	3.06	-10.35	-41.15	182.98	57.48	422.10					4.88
75-79					494.12	-126.68	309.19	154.58	-60.46	-140.52	485.60	-356.74					80.45
80-84						49.07	-27.18	601.85	-1110.5	358.40	-150.70						20.38
CMA		16.25	14.98	8.59	32.05	23.15	32.71	39.52	43.49	123.09	86.84	85.02	406.48				34.81

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				10.70	2.20	6.63											4.92
45-49					5.79	2.07	4.75	19.12									3.63
50-54		4.64	4.29		2.95	4.21	3.69	3.28									3.41
55-59		2.79	1.19	3.46	3.06	1.05	1.50	2.59	2.58								2.17
60-64			0.80	1.00	2.52	3.31	2.06	1.57	2.06	3.65							2.15
65-69			2.10	1.14	1.69	0.89	1.50	1.20	1.90	1.86	1.27						1.51
70-74					0.44	0.94	1.01	0.96	0.86	1.63	1.20	2.46					1.02
75-79					1.79	0.80	1.49	1.25	0.90	0.78	1.77	0.43					1.13
80-84						1.04	0.98	1.44	0.19	1.26	0.89						1.01
CMA		1.98	1.60	1.28	1.99	1.68	1.79	1.68	1.46	1.72	1.28	1.17	1.51				1.64

CMA=Combined ages.
CMD=Combined durations.

Comparison of Cerebrovascular Disease Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

20 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	2.7	5.9	12.8	27.8	60.7	132.3	288.4	628.6	1370.2

Observed deaths for smokers based on age groups \ durations (years)
Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	1	1	5	1	0	0	0	0	0	0	0	0	0	0	8
45-49	0	0	0	0	3	5	17	4	0	0	0	0	0	0	0	0	29
50-54	0	0	2	1	3	15	24	21	1	0	0	0	0	0	0	0	67
55-59	0	0	2	2	3	9	15	24	13	2	0	0	0	0	0	0	70
60-64	0	0	0	5	7	8	12	20	25	6	1	0	0	0	0	0	84
65-69	0	0	1	2	6	9	17	16	19	11	2	0	0	0	0	0	83
70-74	0	0	0	0	4	4	9	12	12	10	5	4	0	0	0	0	60
75-79	0	0	0	0	2	7	4	12	11	4	3	1	4	0	0	0	48
80-84	0	0	0	0	0	1	5	6	3	1	3	3	0	0	0	0	22
CMA	0	0	6	11	33	59	103	115	84	34	14	8	4	0	0	0	471

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	122.0	731.3	1864.4	6356.6	18026.6	20503.2	1633.8	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49246.3
45-49	180.5	1002.0	2402.1	5194.9	13784.6	34778.5	33528.6	2516.8	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93401.0
50-54	149.6	992.5	2591.9	5031.6	9413.9	22961.8	46292.8	35321.8	2430.8	14.3	0.0	0.0	0.0	0.0	0.0	0.0	125200.8
55-59	89.3	741.5	2096.8	3998.7	6975.3	12751.7	25212.9	36148.0	21649.3	1271.8	9.7	-1.0	0.0	0.0	0.0	0.0	112944.8
60-64	0.0	286.8	1260.2	2475.9	4345.8	7306.3	11839.8	17317.4	17882.0	7367.3	306.0	7.5	0.0	0.0	0.0	0.0	70475.0
65-69	0.0	0.0	419.0	1322.0	2099.4	3577.0	5635.6	7411.9	7257.7	5077.6	1778.6	135.8	7.0	0.0	0.0	0.0	34721.5
70-74	0.0	0.0	0.0	422.2	967.3	1333.6	2327.3	3066.0	3013.1	2110.2	1347.2	503.3	62.9	2.2	0.0	0.0	15155.0
75-79	0.0	0.0	0.0	0.0	315.8	582.2	715.3	1126.5	1081.8	860.8	509.1	324.4	142.6	23.9	0.0	0.0	5682.2
80-84	0.0	0.0	0.0	0.0	0.0	167.9	235.6	277.5	317.5	230.6	170.5	91.5	68.9	30.3	2.8	0.0	1593.0
CMA	541.4	3754.2	10634.3	24801.8	55928.6	103962.2	127421.4	105194.4	53645.0	16932.4	4201.0	1062.4	281.4	56.3	2.8	0.0	508419.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
10.7	15.6	22.8	27.0	26.2	27.0	34.5	52.6	86.9	154.7	285.9	463.9	721.8	1013.7	1370.2	0.0	48.0

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			50.95	13.04	25.05	2.19											13.56
45-49					15.90	8.52	44.84	153.07									25.19
50-54			64.39	7.10	19.09	52.55	39.07	46.68	28.37								40.74
55-59			67.54	22.17	15.16	42.73	31.65	35.07	32.20	129.42							34.13
60-64				141.25	100.38	48.80	40.66	54.80	79.11	20.75	198.37						58.50
65-69			106.36	18.99	153.49	119.31	169.36	83.57	129.49	84.34	-19.85						106.75
70-74					125.16	11.56	98.34	103.01	109.88	185.52	82.77	506.45					107.53
75-79					4.81	573.80	-69.36	436.64	388.27	-163.89	-39.31	-320.36					216.14
80-84							752.18	791.95	-425.33	-936.53	389.32						10.83
CMA			33.62	17.33	32.85	29.77	46.29	56.73	69.65	46.06	47.34	289.11	699.57				44.61

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			19.95	5.85	10.32	1.81											6.04
45-49					3.71	2.45	8.65	27.12									5.30
50-54			6.04	1.56	2.49	5.11	4.06	4.65	3.22								4.19
55-59			3.43	1.80	1.54	2.53	2.14	2.26	2.16	5.65							2.23
60-64				3.33	2.65	1.80	1.67	1.90	2.30	1.34	4.27						1.96
65-69			1.80	1.14	2.16	1.90	2.28	1.63	1.98	1.64	0.85						1.81
70-74					1.43	1.04	1.34	1.36	1.38	1.64	1.29	2.76					1.37
75-79					1.01	1.91	0.89	1.69	1.62	0.74	0.94	0.49					1.34
80-84							1.55	1.58	0.69	0.32	1.28						1.01
CMA			2.47	1.64	2.26	2.10	2.34	2.08	1.80	1.30	1.17	1.62	1.97				1.93

CMA=Combined ages.
CMD=Combined durations.

Comparison of Cerebrovascular Disease Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

21-39 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	2.7	5.9	12.8	27.8	60.7	132.3	298.4	628.6	1370.2

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
45-49	0	0	0	0	0	6	3	2	0	0	0	0	0	0	0	0	11
50-54	0	0	0	2	1	4	7	7	0	0	0	0	0	0	0	0	21
55-59	0	0	0	0	1	3	2	7	4	0	0	0	0	0	0	0	17
60-64	0	0	0	0	1	0	2	4	6	5	1	0	0	0	0	0	19
65-69	0	0	0	2	0	0	1	7	1	1	0	0	0	0	0	0	12
70-74	0	0	0	0	0	0	1	2	5	0	1	1	0	0	0	0	10
75-79	0	0	0	0	2	1	2	2	4	2	1	0	1	0	0	0	15
80-84	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2
CMA	0	0	0	4	5	15	18	31	20	9	3	1	2	0	0	0	108

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
40-44	16.6	129.8	474.0	1710.3	5853.9	7467.3	755.2	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16411.1
45-49	21.5	123.9	430.4	1192.3	3567.5	10748.8	12025.3	1259.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29374.1
50-54	27.4	156.8	380.5	919.2	2057.6	5728.7	14152.9	12389.2	1179.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	36994.3
55-59	10.4	95.3	313.1	666.4	1314.5	2727.0	6276.9	11760.9	7628.5	537.3	1.3	0.0	0.0	0.0	0.0	0.0	31331.6
60-64	0.0	38.9	186.7	371.1	728.2	1419.3	2523.5	4388.3	5435.9	2466.3	161.2	5.0	0.0	0.0	0.0	0.0	17724.2
65-69	0.0	0.0	52.3	180.1	314.4	611.0	1101.3	1631.7	1838.5	1535.8	558.8	50.4	4.0	0.0	0.0	0.0	7878.3
70-74	0.0	0.0	0.0	49.3	109.1	189.3	394.8	591.7	658.1	481.6	357.8	143.2	20.8	2.0	0.0	0.0	2997.6
75-79	0.0	0.0	0.0	0.0	28.7	70.2	102.6	164.6	188.5	117.4	93.0	86.3	27.7	4.5	0.0	0.0	883.3
80-84	0.0	0.0	0.0	0.0	0.0	12.9	24.3	28.8	38.4	27.1	16.5	14.9	15.2	7.1	3.0	0.0	188.3
CMA	75.9	544.8	1837.0	5068.6	13973.8	28974.5	37356.8	32218.4	16971.9	5168.4	1186.5	299.8	67.7	13.6	3.0	0.0	143782.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

10.7	14.9	19.4	20.1	16.8	17.8	25.1	40.0	68.4	119.5	225.5	410.1	660.7	965.2	1370.2	0.0	37.3

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44						10.70											3.40
45-49						49.96	19.09	152.95									31.59
50-54				204.81	35.83	57.05	36.69	43.73									43.99
55-59					48.23	82.17	4.02	31.67	24.59								26.41
60-64					76.64		18.56	30.46	49.68	142.04							46.50
65-69				978.30			-41.49	296.71	-77.91	-67.19							20.02
70-74							-35.11	49.65	471.40			-8.86					45.22
75-79								586.59	1493.41								1069.51
80-84																	-307.80
CMA				58.48	18.98	33.98	23.06	56.21	49.40	54.63	26.94	-76.45					37.86

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44						4.98											2.27
45-49						9.53	4.26	27.10									6.39
50-54				17.03	3.80	5.47	3.87	4.42									4.44
55-59					2.73	3.95	1.14	2.14	1.88								1.95
60-64					2.26		1.31	1.50	1.82	3.34							1.77
65-69				8.39			0.69	3.24	0.41	0.49							1.15
70-74							0.88	1.17	2.63			0.97					1.16
75-79								1.93	3.38								2.70
80-84																	0.78
CMA				3.91	2.13	2.91	1.92	2.41	1.72	1.46	1.12	0.81					2.02

CMA=Combined ages.
CMD=Combined durations.

Comparison of Cerebrovascular Disease Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

40+ cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	2.7	5.9	12.8	27.8	60.7	132.3	288.4	628.6	1370.2

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
45-49	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	5
50-54	0	0	0	1	0	2	3	4	0	0	0	0	0	0	0	0	10
55-59	0	0	1	1	0	2	0	5	3	0	0	0	0	0	0	0	12
60-64	0	0	0	0	1	1	2	3	3	3	0	0	0	0	0	0	13
65-69	0	0	0	0	0	2	1	1	2	2	0	0	0	0	0	0	8
70-74	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	4
75-79	0	0	0	0	0	0	0	1	1	2	1	1	0	0	0	0	6
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CMA	0	0	1	2	3	9	9	15	10	7	2	1	0	0	0	0	59

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	17.0	50.8	147.1	569.4	1945.5	2472.4	298.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5503.2
45-49	15.0	75.3	160.3	392.6	1147.0	3499.3	3981.3	499.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9772.4
50-54	10.3	64.6	183.3	342.3	732.5	1971.5	4861.1	4330.6	537.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	13034.8
55-59	4.4	47.9	135.9	276.6	517.3	1023.0	2286.0	4217.5	2948.2	309.2	0.0	0.0	0.0	0.0	0.0	0.0	11766.0
60-64	0.0	14.0	68.8	172.5	322.8	571.7	935.1	1624.3	2099.4	1037.8	95.6	0.0	0.0	0.0	0.0	0.0	6941.8
65-69	0.0	0.0	27.2	77.8	123.5	236.8	455.4	616.2	700.8	648.3	291.3	20.6	1.0	0.0	0.0	0.0	3199.0
70-74	0.0	0.0	0.0	23.0	52.8	63.4	129.8	229.2	246.6	219.3	147.8	79.8	12.2	1.0	0.0	0.0	1204.8
75-79	0.0	0.0	0.0	0.0	20.8	30.9	28.5	54.1	79.2	65.3	33.2	34.3	15.7	4.0	0.3	0.0	366.2
80-84	0.0	0.0	0.0	0.0	0.0	4.5	7.4	13.0	13.6	19.1	4.3	1.4	5.0	0.3	0.0	0.0	68.6
CMA	46.7	252.6	722.6	1854.3	4862.2	9873.5	12963.3	11586.8	6627.3	2299.9	572.2	136.1	33.8	5.3	0.3	0.0	51856.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
8.3	14.2	21.1	23.4	20.6	19.3	25.6	40.9	67.7	125.1	198.8	361.9	601.2	599.1	628.6	0.0	40.2

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
																	15.48
40-44					48.71												45.30
45-49						51.29	44.38	194.27									63.94
50-54				279.34		88.67	48.94	79.59									74.14
55-59				333.71				90.71	73.91								126.58
60-64					249.14	114.23	153.19	124.00	82.20	226.39							117.78
65-69						712.18	87.28	29.99	153.08	176.18							43.64
70-74									117.16								1009.99
75-79																	
80-84																	73.62
CMA			117.32	84.51	41.14	71.83	43.72	88.58	83.20	179.23	150.76						

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
																	6.76
40-44					19.12												8.73
45-49						9.75	8.57	34.15									6.01
50-54				22.87		7.94	4.83	7.23									3.66
55-59				12.96		7.02		4.26	3.65								3.09
60-64					5.10	2.88	3.52	3.04	2.35	4.76							1.89
65-69						6.38	1.66	1.23	2.16	2.33							1.15
70-74									1.41								2.61
75-79																	
80-84																	2.83
CMA			6.57	4.62	3.00	4.72	2.71	3.17	2.23	2.43	1.76						

CMA=Combined ages.
CMD=Combined durations.

Comparison of Cerebrovascular Disease Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

Current smokers of any number of cigarettes

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	2.7	5.9	12.8	27.8	60.7	132.3	288.4	628.6	1370.2

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	1	1	4	7	6	0	0	0	0	0	0	0	0	0	0	19
45-49	0	0	0	0	10	21	32	9	0	0	0	0	0	0	0	0	72
50-54	0	1	6	5	13	36	63	50	1	0	0	0	0	0	0	0	175
55-59	1	2	10	13	13	20	32	68	41	2	0	0	0	0	0	0	202
60-64	0	0	6	10	20	29	38	51	64	35	2	0	0	0	0	0	255
65-69	0	0	5	12	18	20	38	45	50	29	6	0	1	0	0	0	224
70-74	0	0	0	4	17	17	30	37	38	28	15	11	0	0	0	0	197
75-79	0	0	0	0	18	24	24	35	30	20	17	3	7	2	0	0	180
80-84	0	0	0	0	0	10	21	19	12	10	10	5	4	5	0	0	96
CMA	1	4	28	48	116	183	278	314	236	124	50	19	12	7	0	0	1420

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	1104.3	4043.2	8113.1	21698.6	54405.9	57472.9	4341.8	28.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	151208.5
45-49	1629.9	6193.4	10723.1	19058.3	44586.0	102808.7	94744.3	7006.4	37.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	286787.7
50-54	1562.9	6889.1	12970.8	19558.5	32395.2	72038.2	137144.0	100510.3	6775.8	39.5	0.0	0.0	0.0	0.0	0.0	0.0	389884.3
55-59	789.3	5422.8	11383.7	16949.3	24985.0	41468.0	78361.0	114777.3	63079.1	3635.7	37.9	0.0	0.0	0.0	0.0	0.0	360889.1
60-64	0.0	2197.3	8255.5	11221.7	16547.5	24350.0	36819.5	53736.7	54691.7	21985.2	1244.3	28.4	0.0	0.0	0.0	0.3	231077.7
65-69	0.0	0.0	3138.9	7647.5	8748.9	13145.7	18521.5	23421.2	23162.7	16569.9	5764.2	469.3	22.3	0.0	0.0	0.0	120612.0
70-74	0.0	0.0	0.0	2803.7	5589.4	5732.6	8548.8	10269.4	10189.3	7227.5	4646.9	1884.3	229.6	12.4	0.0	0.0	57133.9
75-79	0.0	0.0	0.0	0.0	1977.6	3368.6	3178.0	4094.6	3983.8	3196.3	1870.7	1320.2	601.5	98.0	3.3	0.0	23692.5
80-84	0.0	0.0	0.0	0.0	0.0	1039.9	1468.3	1215.6	1258.6	980.5	741.3	435.2	355.8	161.9	32.8	2.0	7691.9
CMA	5086.4	24745.8	54585.3	98937.6	189235.5	321424.5	383127.3	315060.3	163178.2	53634.6	14305.3	4137.3	1209.3	272.3	36.0	2.0	1628977.5

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

10.7	17.0	27.2	34.3	34.5	36.0	40.9	57.4	94.3	169.0	305.5	491.5	773.1	1054.0	1303.3	1370.2	54.6

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44		22.04	9.64	15.75	10.18	7.75											9.88
45-49					16.57	14.57	27.91	122.59									19.25
50-54		1.74	33.48	12.79	27.36	37.20	33.16	36.97	1.98								32.11
55-59	96.86	9.04	60.00	48.85	24.19	20.39	12.99	31.40	37.15	27.17							28.13
60-64			11.98	28.42	60.17	58.40	42.51	34.21	56.33	98.50	100.05						49.66
65-69			26.99	24.62	73.44	19.84	72.87	59.83	83.57	42.72	-28.21						53.42
70-74				-145.71	15.77	8.17	62.54	71.91	84.56	99.03	34.41	295.38					56.42
75-79					281.60	83.86	126.59	226.18	124.44	-2.89	280.16	-401.36	535.15				131.13
80-84						-408.60	59.98	192.82	-416.76	-350.32	-21.29	-221.23	-246.09	1717.80			-122.15
CMA	8.95	-0.79	24.12	14.22	26.77	21.95	31.68	42.27	50.29	62.17	43.97	-32.23	219.28	1516.36			32.53

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44		9.20	4.56	6.86	4.79	3.88											4.67
45-49						3.49	5.76	21.92									4.28
50-54		1.14	3.62	2.00	3.14	3.91	3.60	3.89	1.16								3.51
55-59	4.55	1.32	3.15	2.75	1.87	1.73	1.47	2.13	2.33	1.98							2.01
60-64			1.20	1.47	1.99	1.96	1.70	1.56	1.93	2.62	2.65						1.82
65-69			1.20	1.19	1.56	1.15	1.55	1.45	1.63	1.32	0.79						1.40
70-74				0.49	1.05	1.03	1.22	1.25	1.29	1.34	1.12	2.02					1.20
75-79					1.45	1.13	1.20	1.36	1.20	1.00	1.45	0.36	1.85				1.21
80-84						0.70	1.04	1.14	0.70	0.74	0.98	0.84	0.82	2.25			0.91
CMA	1.84	0.95	1.89	1.41	1.78	1.63	1.78	1.74	1.53	1.37	1.14	0.93	1.28	2.44			1.60

CM. =Combined ages.
CMD=Combined durations.

Comparison of COPD Death Rates of Current Smokers
and Neversmokers for White Females Aged Between 40 and 84

1-9 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.1	0.3	0.6	1.2	2.3	4.6	9.0	17.9	35.5

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
45-49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3
60-64	0	1	0	0	0	0	1	3	1	0	0	0	0	0	0	0	6
65-69	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3
70-74	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	5
75-79	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CMA	0	1	0	0	0	2	4	8	5	0	0	0	0	0	0	0	20

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	709.3	2091.8	3221.0	6111.7	11643.1	10203.1	667.3	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34653.1
45-49	1080.5	3437.5	4635.5	6281.3	11346.4	20796.1	16442.0	945.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64960.7
50-54	1046.6	3987.8	6165.6	7067.4	9590.8	17192.7	27229.5	17452.5	904.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	90645.0
55-59	487.5	3251.3	5624.0	6817.8	8002.3	11305.3	18212.4	23225.2	11331.1	575.8	13.9	0.0	0.0	0.0	0.0	0.0	89046.7
60-64	0.0	1334.5	4669.5	4904.3	5913.2	7083.5	9539.7	12597.9	11678.7	4341.5	282.3	9.9	0.0	0.0	0.0	0.0	62354.9
65-69	0.0	0.0	1921.2	4077.8	3524.4	4485.3	5289.4	6171.6	5796.7	4025.3	1345.9	158.8	7.2	0.0	0.0	0.0	36803.3
70-74	0.0	0.0	0.0	1620.6	2976.8	2302.6	2951.9	3145.5	3035.7	2082.8	1348.6	595.2	82.2	3.3	0.0	0.0	20044.9
75-79	0.0	0.0	0.0	0.0	1077.9	1689.2	1265.3	5472.6	5402.3	1128.5	607.2	507.3	239.6	36.2	1.0	0.0	9427.1
80-84	0.0	0.0	0.0	0.0	0.0	572.8	754.3	490.6	504.0	414.5	304.0	187.3	165.3	67.4	8.0	1.0	3469.0
CMA	3323.8	14102.8	26436.8	36880.8	53974.8	75620.3	82351.8	65507.0	34658.7	12576.6	3901.8	1458.4	494.2	106.8	9.0	1.0	411404.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0.5	0.7	1.2	1.6	1.8	1.8	2.0	2.5	4.0	6.6	10.4	15.0	22.1	28.8	33.6	35.5	2.3

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44						9.65											2.74
45-49																	
50-54																	
55-59							9.82	3.15									2.21
60-64		72.64					8.18	21.52	6.26								7.32
65-69								27.85	12.69								3.59
70-74						34.39	24.84	54.54	23.90								15.91
75-79									124.70								3.29
80-84																	
CMA		6.35				0.81	2.86	9.67	10.46								2.52

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44						65.96											19.42
45-49																	
50-54																	
55-59							9.47	3.71									2.91
60-64		32.60					4.56	10.36	3.73								4.19
65-69								7.11	3.79								1.79
70-74						4.81	3.75	7.03	3.64								2.76
75-79									7.96								1.18
80-84																	
CMA		9.53				1.44	2.44	4.80	3.64								2.07

CMA=Combined ages.
CMD=Combined durations.

Comparison of COPD Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84
10-19 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.1	0.3	0.6	1.2	2.3	4.6	9.0	17.9	35.5

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
50-54	0	0	1	0	0	1	1	1	1	0	0	0	0	0	0	0	5
55-59	0	0	0	1	0	0	1	2	5	0	0	0	0	0	0	0	9
60-64	0	0	0	0	0	0	0	3	5	2	0	0	0	0	0	0	10
65-69	0	0	0	0	0	0	0	4	3	2	1	0	0	0	0	0	10
70-74	0	0	0	0	0	1	1	0	0	2	2	1	0	0	0	0	7
75-79	0	0	0	0	0	1	1	3	0	3	2	2	1	0	0	0	13
80-84	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
CMA	0	0	1	1	0	3	8	14	14	9	5	3	1	0	0	0	59

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	239.5	1039.5	2406.6	6950.7	16936.8	16826.9	986.8	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45394.8
45-49	332.4	1554.7	3095.0	5997.3	14740.5	32996.0	28767.3	1785.4	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89279.5
50-54	329.1	1687.4	3649.4	6198.0	13600.4	24183.5	44607.8	31016.3	1724.5	13.0	0.0	0.0	0.0	0.0	0.0	0.0	124009.4
55-59	197.6	1286.8	3013.9	5189.8	8175.5	13661.1	26372.8	37425.8	19522.1	941.7	13.1	0.0	0.0	0.0	0.0	0.0	115600.0
60-64	0.0	523.1	2070.4	3297.8	5237.7	7969.3	11981.5	17808.8	17595.7	6772.3	319.3	6.0	0.0	0.0	0.0	0.0	73581.8
65-69	0.0	0.0	719.3	1989.8	2687.2	4235.6	6039.8	7589.8	7569.0	5282.9	1789.5	103.8	3.2	0.0	0.0	0.0	38009.8
70-74	0.0	0.0	0.0	688.7	1583.6	1843.7	2745.0	3237.1	3235.8	2333.7	1445.7	563.0	51.5	4.0	0.0	0.0	17731.7
75-79	0.0	0.0	0.0	0.0	534.4	996.2	1066.3	1276.8	1232.1	1024.4	628.3	367.8	176.0	29.4	2.0	0.0	7333.8
80-84	0.0	0.0	0.0	0.0	0.0	281.8	446.8	405.7	385.1	289.3	246.0	140.1	101.5	56.9	19.0	1.0	2373.1
CMA	1098.6	6091.4	14954.6	30312.1	60496.1	102994.0	123014.0	100553.7	51275.3	16667.3	4441.8	1180.7	332.2	90.3	21.0	1.0	513513.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0.5	0.7	1.0	1.2	1.2	1.2	1.5	2.0	3.2	5.4	9.5	14.5	21.8	28.6	33.9	35.5	1.9

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49							10.13										3.07
50-54			26.82			3.55	1.66	2.64	57.40								3.45
55-59				18.11			2.63	4.18	24.45								6.61
60-64								14.55	26.12	27.23							11.29
65-69								48.14	35.08	33.30	51.32						21.75
70-74						45.20	27.39			76.56	129.31	168.58					30.44
75-79						82.46	75.86	217.03		274.93	300.42	525.80					159.34
80-84							188.30	210.97									48.74
CMA			5.69	2.13		1.71	5.04	11.89	24.11	48.60	103.12	239.57	279.25				9.62

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49							35.39										11.40
50-54			46.88			7.07	3.84	5.52	99.21								6.90
55-59				16.63			3.27	4.61	22.10								6.71
60-64								7.33	12.36	12.85							5.91
65-69								11.56	8.70	8.31	12.26						5.77
70-74						6.00	4.03			9.48	15.31	19.65					4.37
75-79						5.60	5.23	13.11		16.34	17.76	30.34					9.89
80-84							6.30	6.94									2.37
CMA			6.70	2.83		2.41	4.44	6.86	8.56	9.95	11.91	17.50	13.81				6.16

CMA=Combined ages.
CMD=Combined durations.

Comparison of COPD Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

20 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.1	0.3	0.6	1.2	2.3	4.6	9.0	17.9	35.5

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
45-49	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3
50-54	0	0	0	0	0	1	3	2	0	0	0	0	0	0	0	0	6
55-59	0	0	0	0	0	1	1	8	6	0	0	0	0	0	0	0	16
60-64	0	0	0	0	0	2	4	7	7	5	1	0	0	0	0	0	26
65-69	0	0	0	0	2	1	3	5	6	5	1	0	0	0	0	0	23
70-74	0	0	0	1	1	0	1	2	2	4	2	2	0	0	0	0	15
75-79	0	0	0	0	0	0	1	1	4	3	2	0	0	0	0	0	11
80-84	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
CMA	0	0	0	1	4	7	15	25	25	17	6	2	0	0	0	0	102

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	122.0	731.3	1864.4	6356.6	18026.6	20503.2	1633.8	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49246.3
45-49	180.5	1002.0	2402.1	5194.9	13784.6	34778.5	33528.6	2516.8	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93401.0
50-54	149.6	992.5	2581.9	5031.6	9413.9	22961.8	46292.8	35321.8	2430.8	14.3	0.0	0.0	0.0	0.0	0.0	0.0	125200.8
55-59	89.3	741.5	2096.8	3998.7	6975.3	12751.7	25212.9	38148.0	21649.3	1271.8	9.7	0.0	0.0	0.0	0.0	0.0	112944.8
60-64	0.0	286.8	1260.2	2475.9	4345.8	7306.3	11839.8	17317.4	17882.0	7367.3	386.0	7.5	0.0	0.0	0.0	0.0	70475.0
65-69	0.0	0.0	419.0	1322.0	2099.4	3677.0	5635.6	7411.9	7257.7	5077.6	1778.6	135.8	7.0	0.0	0.0	0.0	34721.5
70-74	0.0	0.0	0.0	422.2	967.3	1333.6	2327.3	3096.0	3013.1	2110.2	1347.2	503.3	62.9	2.2	0.0	0.0	15155.0
75-79	0.0	0.0	0.0	0.0	315.8	582.2	715.3	1126.5	1081.8	860.8	509.1	324.4	142.6	23.9	0.0	0.0	5682.2
80-84	0.0	0.0	0.0	0.0	0.0	167.9	235.6	277.5	317.5	230.6	170.5	91.5	68.9	30.3	2.8	0.0	1593.0
CMA	541.4	3754.2	10634.3	24801.8	55928.6	103962.2	127421.4	105194.4	53645.0	16932.4	4201.0	1062.4	281.4	56.3	2.8	0.0	508419.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0.5	0.7	0.9	1.0	1.0	1.0	1.3	1.9	3.0	5.0	8.7	13.4	19.9	27.0	35.5	0.0	1.7

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					5.40												1.88
45-49						5.46	2.69										2.92
50-54						3.77	5.90	5.08									4.21
55-59						6.68	2.81	19.81	26.56								13.01
60-64						25.08	31.49	38.12	36.85	65.57	256.77						34.59
65-69					90.71	23.40	48.68	62.90	78.11	93.91	51.67						61.68
70-74				227.83	94.35		33.93	56.19	57.34	180.52	139.42	388.38					89.94
75-79							121.89	70.85	351.85	330.61	374.94						175.66
80-84							388.94										27.23
CMA				3.00	6.18	5.74	10.50	21.89	43.65	95.42	134.17	174.84					18.38

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					37.33												13.66
45-49						19.51	10.12										10.90
50-54						7.45	11.09	9.69									8.20
55-59						6.77	3.42	18.09	23.91								12.22
60-64						11.91	14.70	17.59	17.03	29.53	112.72						16.05
65-69					20.90	6.13	11.68	14.80	18.14	21.61	12.34						14.53
70-74				26.21	11.44		4.75	7.22	7.34	20.97	16.43	43.97					10.95
75-79							7.80	4.95	20.63	19.45	21.92						10.80
80-84							11.94										1.77
CMA				3.91	7.37	6.79	9.29	12.69	15.76	20.18	16.50	14.03					11.94

CMA=Combined ages.
CMD=Combined durations.

Comparison of COPD Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

21-39 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.1	0.3	0.6	1.2	2.3	4.6	9.0	17.9	35.5

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
50-54	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
55-59	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
60-64	0	0	0	0	0	1	0	1	2	2	0	0	0	0	0	0	6
65-69	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
70-74	0	0	0	0	0	0	1	0	2	1	2	0	0	0	0	0	6
75-79	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	3
80-84	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
CMA	0	0	0	0	0	2	2	5	7	5	3	1	0	0	0	0	25

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	Total
40-44	16.6	129.8	474.0	1710.3	5853.9	7467.3	755.2	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16411.1
45-49	21.5	123.9	430.4	1192.3	3567.5	10748.8	12025.3	1259.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29374.1
50-54	27.4	156.8	380.5	919.2	2057.6	5729.7	14152.9	12389.2	1179.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	36994.3
55-59	10.4	95.3	313.1	666.4	1314.5	2727.0	6276.9	11760.9	7628.5	537.3	1.3	0.0	0.0	0.0	0.0	0.0	31331.6
60-64	0.0	38.9	186.7	371.1	728.2	1419.3	2523.5	4388.3	5435.9	2466.3	161.2	5.0	0.0	0.0	0.0	0.0	17724.2
65-69	0.0	0.0	52.3	180.1	314.4	611.0	1101.3	1631.7	1838.5	1535.8	558.8	50.4	4.0	0.0	0.0	0.0	7878.3
70-74	0.0	0.0	0.0	49.3	109.1	189.3	394.8	591.7	658.1	481.6	357.8	143.2	20.8	2.0	0.0	0.0	2997.6
75-79	0.0	0.0	0.0	0.0	28.7	70.2	102.6	164.6	188.5	117.4	93.0	86.3	27.7	4.5	0.0	0.0	883.3
80-84	0.0	0.0	0.0	0.0	0.0	12.9	24.3	28.8	38.4	27.1	16.5	14.9	15.2	7.1	3.0	0.0	188.3
CMA	75.9	544.8	1837.0	5088.6	13973.8	28974.5	37356.8	32218.4	16971.9	5168.4	1188.5	299.8	67.7	13.6	3.0	0.0	143782.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0.5	0.6	0.8	0.8	0.7	0.7	1.0	1.5	2.4	4.0	7.1	12.0	18.3	25.8	35.5	0.0	1.4

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49						9.01											3.11
50-54							6.48	7.49									4.82
55-59								7.34	25.06								8.42
60-64						68.16		20.49	34.49	78.80							31.55
65-69								56.73		60.55							20.83
70-74							244.23		294.87	198.61	550.01						191.12
75-79																	321.70
80-84																	1026.87
CMA							6.20	4.38	14.03	38.82	92.73	245.35	321.56				16.03

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49						31.57											11.55
50-54							12.09	13.81									9.25
55-59								7.34	22.62								8.26
60-64						30.66		9.91	16.01	35.28							14.73
65-69								13.45		14.29							5.57
70-74							28.02		33.63	22.97	61.85						22.15
75-79																	18.95
80-84																	29.89
CMA							9.87	5.51	10.40	17.03	24.14	35.69	27.69				12.80

CMA=Combined ages.
CMD=Combined durations.

Comparison of COPD Death Rates of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

40+ cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.1	0.3	0.6	1.2	2.3	4.6	9.0	17.9	35.5

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
50-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
60-64	0	0	0	0	0	1	1	2	2	0	0	0	0	0	0	0	6
65-69	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
70-74	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
75-79	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CMA	0	0	0	0	0	1	2	3	5	1	0	1	1	0	0	0	14

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	17.0	50.8	147.1	569.4	1945.5	2472.4	296.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5503.2
45-49	15.0	75.3	160.3	392.6	1147.0	3499.3	3981.3	499.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9772.4
50-54	10.3	64.6	183.3	342.3	732.5	1971.5	4861.1	4330.6	537.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	13034.8
55-59	4.4	47.9	135.9	276.6	517.3	1023.0	2286.0	4217.5	2948.2	309.2	0.0	0.0	0.0	0.0	0.0	0.0	11766.0
60-64	0.0	14.0	68.8	172.5	322.8	571.7	935.1	1624.3	2099.4	1037.8	95.6	0.0	0.0	0.0	0.0	0.0	6941.8
65-69	0.0	0.0	27.2	77.8	123.5	236.8	455.4	616.2	700.8	648.3	291.3	20.6	1.0	0.0	0.0	0.0	3199.0
70-74	0.0	0.0	0.0	23.0	52.8	63.4	129.8	229.2	246.6	219.3	147.8	79.8	12.2	1.0	0.0	0.0	1204.8
75-79	0.0	0.0	0.0	0.0	20.8	30.9	28.5	54.1	79.2	65.3	33.2	34.3	15.7	4.0	0.3	0.0	366.2
80-84	0.0	0.0	0.0	0.0	0.0	4.5	7.4	13.0	13.6	19.1	4.3	1.4	5.0	0.3	0.0	0.0	68.8
CMA	46.7	252.6	722.6	1854.3	4862.2	9673.5	12983.3	11586.8	6627.3	2299.9	572.2	136.1	33.8	5.3	0.3	0.0	51856.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
0.4	0.6	0.9	0.9	0.8	0.8	1.0	1.5	2.4	4.1	6.3	10.9	16.9	17.1	17.9	0.0	1.5

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49							24.82										9.94
50-54																	
55-59									66.68								15.84
60-64						172.63	104.64	120.83	92.97								84.13
65-69										149.68							26.70
70-74								427.33	396.50								156.97
75-79																	528.28
80-84																	
CMA						9.38	14.41	24.37	73.05	39.34							25.54

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44																	
45-49							85.23										34.72
50-54																	
55-59									58.53								14.67
60-64						76.11	46.53	53.57	41.45								37.61
65-69										33.84							6.86
70-74								48.28	44.87								18.37
75-79																	30.47
80-84																	
CMA						13.48	15.53	17.03	31.48	10.49							18.57

CMA=Combined ages.
CMD=Combined durations.

Comparison of COPD Death Rates of Current Smokers
and Neversmokers for White Females Aged Between 40 and 84
Current smokers of any number of cigarettes

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	0.1	0.3	0.6	1.2	2.3	4.6	9.0	17.9	35.5

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
45-49	0	0	0	0	0	3	5	0	0	0	0	0	0	0	0	0	8
50-54	0	0	1	0	0	2	5	4	1	0	0	0	0	0	0	0	13
55-59	0	0	0	1	0	1	4	12	15	0	0	0	0	0	0	0	33
60-64	0	1	0	0	0	4	6	16	17	9	1	0	0	0	0	0	54
65-69	0	0	0	0	2	1	3	12	10	9	2	0	0	0	0	0	39
70-74	0	0	0	1	1	2	4	5	6	7	6	3	0	0	0	0	35
75-79	0	0	0	0	0	1	2	4	7	7	4	4	2	0	0	0	31
80-84	0	0	0	0	0	0	2	2	0	0	1	0	0	0	0	0	5
CMA	0	1	1	2	4	15	31	55	56	32	14	7	2	0	0	0	220

Total PYO

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
40-44	1104.3	4043.2	8113.1	21698.6	54405.9	57472.9	4341.8	28.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	151208.5
45-49	1629.9	6193.4	10723.3	19058.3	44586.0	102808.7	94744.3	7006.4	37.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	286787.7
50-54	1562.9	6889.1	12970.8	19558.5	32395.2	72038.2	137144.0	100510.3	6775.8	39.5	0.0	0.0	0.0	0.0	0.0	0.0	389884.3
55-59	789.3	5422.8	11383.7	16949.3	24985.0	41458.0	78361.0	114777.3	63079.1	3635.7	37.9	0.0	0.0	0.0	0.0	0.0	360889.1
60-64	0.0	2197.3	8255.5	11221.7	16547.5	24350.0	36819.5	53736.7	54691.7	21985.2	1244.3	28.4	0.0	0.0	0.0	0.0	231077.7
65-69	0.0	0.0	3138.9	7647.5	8748.9	13145.7	18521.5	23421.2	23162.7	16569.9	5764.2	469.3	22.3	0.0	0.0	0.0	120612.0
70-74	0.0	0.0	0.0	2803.7	5589.4	5732.6	8548.8	10269.4	10189.3	7227.5	4646.9	1884.3	229.6	12.4	0.0	0.0	57133.9
75-79	0.0	0.0	0.0	0.0	1977.6	3368.6	3178.0	4094.6	3983.8	3196.3	1870.7	1320.2	601.5	98.0	3.3	0.0	23692.5
80-84	0.0	0.0	0.0	0.0	0.0	1039.9	1468.3	1215.6	1258.6	980.5	741.3	435.2	355.8	161.9	32.8	2.0	7691.9
CMA	5086.4	24745.8	54585.3	98937.6	189235.5	321424.5	383127.3	315060.3	163178.2	53634.6	14305.3	4137.3	1209.3	272.3	36.0	2.0	1628977.5

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	
0.5	0.7	1.1	1.3	1.2	1.2	1.4	2.0	3.2	5.4	9.2	14.1	21.2	28.0	34.0	35.5	1.9

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				1.69		1.59											1.17
45-49						2.62	4.98										2.49
50-54			7.13			2.19	3.06	3.40	14.17								2.75
55-59				4.74		1.25	3.95	9.30	22.62								7.99
60-64		43.21				14.13	14.00	27.48	28.78	38.64	78.07						21.07
65-69				18.30		3.05	11.64	46.68	38.62	49.76	30.14						27.78
70-74			26.63	8.85		25.85	37.75	39.65	49.85	87.81	120.08	150.17					52.22
75-79						11.76	45.01	79.77	157.79	201.08	195.90	285.07	314.58				112.92
80-84							100.67	128.99			99.35						29.46
CMA		3.32	0.76	0.75	0.88	3.44	6.64	15.45	31.15	54.30	88.70	155.08	144.22				11.63

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44					12.37	11.71											8.90
45-49						9.90	17.91										9.47
50-54			13.19			4.75	6.24	6.81	25.25								5.70
55-59				5.09		2.08	4.40	9.02	20.52								7.89
60-64		19.80				7.15	7.09	12.95	13.52	17.81	34.97						10.17
65-69					5.02	1.67	3.55	11.24	9.47	11.92	7.61						7.09
70-74			3.95	1.98		3.86	5.18	5.39	6.52	10.72	14.29	17.61					6.78
75-79						1.66	3.51	5.45	9.80	12.22	11.93	16.91	18.55				7.30
80-84							3.83	4.63				3.80					1.83
CMA		5.62	1.71	1.59	1.72	3.81	5.59	8.68	10.84	11.12	10.68	11.99	7.81				7.22

CMA=Combined ages.
CMD=Combined durations.

Comparison of All-Cause Mortality of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

1-9 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	94.7	160.4	271.6	459.9	778.7	1318.6	2232.8	3780.7	6401.8

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	2	3	9	17	17	2	0	0	0	0	0	0	0	0	0	50
45-49	1	7	13	8	31	50	42	2	1	0	0	0	0	0	0	0	155
50-54	1	5	24	29	30	57	112	62	5	0	0	0	0	0	0	0	325
55-59	2	9	30	39	32	64	95	127	67	3	0	0	0	0	0	0	468
60-64	0	11	38	35	38	51	86	102	105	38	6	0	0	0	0	0	510
65-69	0	0	21	36	42	59	63	78	82	52	16	4	0	0	0	0	453
70-74	0	0	0	33	59	46	62	69	80	45	27	16	1	0	0	0	438
75-79	0	0	0	0	43	68	59	58	64	43	33	16	11	5	0	0	400
80-84	0	0	0	0	0	33	68	33	40	31	23	17	8	9	2	0	264
CMA	4	34	129	189	292	445	589	531	444	212	105	53	20	14	2	0	3063

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
40-44	709.3	2091.8	3221.0	6111.7	11643.1	10203.1	667.3	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34653.1
45-49	1060.5	3437.5	4635.5	6281.3	11346.4	20786.1	16442.0	945.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64960.7
50-54	1046.6	3987.8	6165.6	7067.4	9590.8	17192.7	27229.5	17452.5	904.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	90645.0
55-59	487.5	3251.3	5824.0	6817.8	8002.3	11305.3	18212.4	23225.2	11331.1	575.8	13.9	0.0	0.0	0.0	0.0	0.0	89046.7
60-64	0.0	1334.5	4669.5	4904.3	5913.2	7083.5	9539.7	12597.9	11678.7	4341.5	282.3	9.9	0.0	0.0	0.0	0.0	62354.9
65-69	0.0	0.0	1921.2	4077.8	3524.4	4485.3	5289.4	6171.6	5796.7	4025.3	1345.9	158.8	7.2	0.0	0.0	0.0	36803.3
70-74	0.0	0.0	0.0	1620.6	2876.8	2302.6	2951.9	3145.5	3035.7	2082.8	1348.6	595.2	82.2	3.3	0.0	0.0	20044.9
75-79	0.0	0.0	0.0	0.0	1077.9	1689.2	1265.3	1472.6	1402.3	1128.5	607.2	507.3	239.6	36.2	1.0	0.0	9427.1
80-84	0.0	0.0	0.0	0.0	0.0	572.8	754.3	490.6	504.0	414.5	304.0	187.3	165.3	67.4	8.0	1.0	3469.0
CMA	3323.8	14102.8	26436.8	36880.8	53974.8	75620.3	82351.8	65507.0	34658.7	12576.6	3901.8	1458.4	494.2	106.8	9.0	1.0	411404.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
225.3	309.7	437.7	527.5	536.5	539.5	596.0	751.9	1082.0	1632.1	2371.6	3197.1	4364.1	5387.7	6110.6	6401.8	678.1

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44		0.89	-1.59	52.53	51.28	71.89	205.01										49.56
45-49	-67.85	43.24	120.05	-33.03	112.82	80.15	95.05	51.21									78.21
50-54	-176.05	-146.21	117.66	138.74	41.20	59.94	139.72	83.65	281.50								86.94
55-59	-49.64	-183.08	55.22	112.14	-60.01	106.22	61.73	86.93	131.40	61.09							65.68
60-64		45.55	35.06	-65.07	-136.09	-58.74	122.77	30.93	120.35	96.55	1347.05						39.17
65-69			-225.52	-435.77	-126.92	-3.18	-127.55	-54.75	96.00	-26.76	-129.83	1201.08					-67.74
70-74				-196.47	-181.85	-235.02	-132.44	-39.16	402.56	-72.17	-230.67	455.55					-47.68
75-79				208.46	244.94	802.09	157.94	783.11	29.65	1654.37	-626.97	810.59					462.38
80-84					-640.14	2613.76	324.87	1534.69	1077.07	1163.97	2676.95	-1560.6					1208.44
CMA	-104.96	-68.57	50.27	-15.07	4.48	49.01	119.26	58.73	199.03	53.59	319.42	436.95	-316.91				66.44

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44		1.01	0.96	1.55	1.54	1.76	3.16										1.52
45-49	0.58	1.27	1.75	0.79	1.70	1.50	1.59	1.32									1.49
50-54	0.35	0.46	1.43	1.51	1.15	1.22	1.51	1.31	2.04								1.32
55-59	0.89	0.60	1.12	1.24	0.87	1.23	1.13	1.19	1.29	1.13							1.14
60-64		1.06	1.05	0.92	0.83	0.92	1.16	1.04	1.15	1.12	2.73						1.05
65-69			0.83	0.67	0.90	1.00	0.90	0.96	1.07	0.96	0.90	1.91					0.93
70-74				0.91	0.92	0.89	0.94	0.98	1.18	0.97	0.90	1.20					0.98
75-79				1.06	1.06	1.06	1.23	1.04	1.21	1.01	1.44	0.83	1.21				1.12
80-84					0.90	0.90	1.41	1.05	1.24	1.17	1.18	1.42	0.76				1.19
CMA	0.53	0.78	1.11	0.97	1.01	1.09	1.20	1.08	1.16	1.03	1.13	1.14	0.93				1.10

CMA=Combined ages.
CMD=Combined durations.

Comparison of All-Cause Mortality of Current Smokers and Neversmokers for White Females Aged Between 40 and 84
10-19 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	94.7	160.4	271.6	459.9	778.7	1318.6	2232.8	3780.7	6401.8

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	2	13	27	25	2	0	0	0	0	0	0	0	0	0	69
45-49	0	8	4	12	40	94	106	3	0	0	0	0	0	0	0	0	267
50-54	1	4	19	20	47	104	194	145	15	0	0	0	0	0	0	0	549
55-59	0	7	11	30	59	91	202	249	178	7	0	0	0	0	0	0	834
60-64	0	5	21	20	59	84	149	192	175	104	7	0	0	0	0	0	816
65-69	0	0	12	24	42	73	107	110	130	104	26	5	1	0	0	0	634
70-74	0	0	0	13	34	35	67	89	98	63	53	14	1	0	0	0	467
75-79	0	0	0	0	25	43	51	71	57	47	34	21	8	2	0	0	359
80-84	0	0	0	0	0	16	42	40	25	20	20	10	8	4	1	0	186
CMA	1	24	69	132	333	565	920	899	678	345	140	50	18	6	1	0	4181

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMA
40-44	239.5	1039.5	2406.6	6950.7	16936.8	16826.9	986.8	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45394.8
45-49	332.4	1554.7	3095.0	5997.3	14740.5	32996.0	28767.3	1785.4	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89279.5
50-54	329.1	1687.4	3649.4	6198.0	10600.4	24183.5	44607.8	31016.3	1724.5	13.0	0.0	0.0	0.0	0.0	0.0	0.0	124009.4
55-59	197.6	1286.8	3013.9	5189.8	8175.5	13661.1	26372.8	37425.8	19522.1	941.7	13.1	0.0	0.0	0.0	0.0	0.0	115800.0
60-64	0.0	523.1	2070.4	3297.8	5237.7	7969.3	11981.5	17808.8	17595.7	6772.3	319.3	6.0	0.0	0.0	0.0	0.0	73581.8
65-69	0.0	0.0	719.3	1989.8	2687.2	4235.6	6039.8	7589.8	7569.8	5282.9	1789.5	103.8	3.2	0.0	0.0	0.0	38009.8
70-74	0.0	0.0	0.0	688.7	1583.6	1843.7	2745.0	3237.1	3235.8	2333.7	1445.7	563.0	51.5	4.0	0.0	0.0	17731.7
75-79	0.0	0.0	0.0	0.0	534.4	996.2	1066.3	1276.8	1232.1	1024.4	628.3	367.8	176.0	29.4	2.0	0.0	7333.8
80-84	0.0	0.0	0.0	0.0	0.0	281.8	446.8	405.7	385.1	289.3	246.0	140.1	101.5	56.9	19.0	1.0	2373.1
CMA	1096.6	6091.4	14954.6	30312.1	60496.1	102994.0	123014.0	100553.7	51275.3	16657.3	4441.8	1180.7	332.2	90.3	21.0	1.0	513513.8

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

233.3	296.4	378.6	409.7	393.2	400.2	481.8	641.0	926.0	1417.5	2204.6	3122.0	4318.2	5363.7	6152.2	6401.8	575.4

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			-11.62	92.31	64.69	53.85	107.94										57.27
45-49		354.18	-31.16	39.69	110.96	124.49	208.08	7.63									138.66
50-54	32.28	-34.55	249.03	51.09	171.78	158.45	163.30	195.90	598.22								171.11
55-59		84.11	-94.92	118.16	261.78	206.23	306.05	205.43	451.90	263.47							260.32
60-64		177.14	235.56	-172.27	347.73	275.32	464.86	299.39	215.84	756.93	1413.91						330.24
65-69			349.80	-112.47	244.38	404.89	452.97	130.70	398.93	650.00	134.31						349.38
70-74				-345.07	-85.74	-334.36	208.03	516.62	795.81	466.84	1433.36	253.91					400.93
75-79					897.28	535.83	1002.03	1779.92	845.60	807.26	1631.14	1928.39	764.74				1114.46
80-84						-724.70	2999.41	3458.49	90.28	512.61	1728.26						1436.09
CMA	-142.23	97.64	82.76	25.73	157.27	148.41	266.09	253.09	396.31	653.66	947.33	1112.94	1100.79				238.77

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			0.88	1.97	1.68	1.57	2.14										1.60
45-49		3.21	0.81	1.25	1.69	1.78	2.30	1.05									1.86
50-54	1.12	0.87	1.92	1.19	1.63	1.58	1.60	1.72	3.20								1.63
55-59		1.18	0.79	1.26	1.57	1.45	1.67	1.45	1.98	1.62							1.57
60-64		1.23	1.30	0.78	1.45	1.35	1.60	1.38	1.28	1.97	2.82						1.42
65-69			1.27	0.91	1.19	1.31	1.34	1.10	1.30	1.49	1.10						1.26
70-74				0.85	0.96	0.85	1.09	1.23	1.36	1.21	1.64	1.11					1.18
75-79					1.24	1.14	1.27	1.22	1.21	1.21	1.43	1.51	1.20				1.29
80-84						0.89	1.47	1.54	1.01	1.08	1.27						1.22
CMA	0.39	1.33	1.22	1.06	1.40	1.37	1.55	1.39	1.43	1.46	1.43	1.36	1.25				1.41

CMA=Combined ages.
CMD=Combined durations.

Comparison of All-Cause Mortality of Current Smokers and Neversmokers for White Females Aged Between 40 and 84
20 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	94.7	160.4	271.6	459.9	778.7	1318.6	2232.8	3780.7	6401.8

Observed deaths for smokers based on age groups \ durations (years)
Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	2	15	55	50	6	0	0	0	0	0	0	0	0	0	128
45-49	1	0	5	14	47	101	143	26	0	0	0	0	0	0	0	0	337
50-54	0	5	8	21	43	127	246	233	18	0	0	0	0	0	0	0	701
55-59	0	7	11	24	48	84	195	314	202	16	0	0	0	0	0	0	901
60-64	0	2	14	25	43	71	161	209	242	82	10	1	0	0	0	0	860
65-69	0	0	9	21	45	84	127	138	136	129	44	5	0	0	0	0	738
70-74	0	0	0	11	35	47	70	100	87	83	40	32	2	1	0	0	508
75-79	0	0	0	0	11	24	23	55	61	48	20	16	9	0	0	0	267
80-84	0	0	0	0	0	19	20	22	23	13	23	8	8	3	2	0	141
CMA	1	14	49	131	327	607	991	1097	769	371	137	62	19	4	2	0	4581

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	122.0	731.3	1864.4	6356.6	18026.6	20503.2	1633.8	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49246.3
45-49	180.5	1002.0	2402.1	5194.9	13784.6	34778.5	33528.6	2516.8	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93401.0
50-54	149.6	992.5	2591.9	5031.6	9413.9	22961.8	46292.8	35321.8	2430.8	14.3	0.0	0.0	0.0	0.0	0.0	0.0	125200.8
55-59	89.3	741.5	2096.8	3998.7	6975.3	12751.7	25212.9	38148.0	21649.3	1271.8	9.7	0.0	0.0	0.0	0.0	0.0	112944.8
60-64	0.0	286.8	1260.2	2475.9	4345.8	7306.3	11839.8	17317.4	17882.0	7367.3	386.0	7.5	0.0	0.0	0.0	0.0	70475.0
65-69	0.0	0.0	419.0	1322.0	2099.4	3577.0	5635.6	7411.9	7257.7	5077.6	1778.6	135.8	7.0	0.0	0.0	0.0	34721.5
70-74	0.0	0.0	0.0	422.2	967.3	1333.6	2327.3	3066.0	3013.1	2110.2	1347.2	503.3	62.9	2.2	0.0	0.0	15155.0
75-79	0.0	0.0	0.0	0.0	315.8	582.2	715.3	1126.5	1081.8	860.8	509.1	324.4	142.6	23.9	0.0	0.0	5682.2
80-84	0.0	0.0	0.0	0.0	0.0	167.9	235.6	277.5	317.5	230.6	170.5	91.5	68.9	30.3	2.8	0.0	1593.0
CMA	541.4	3754.2	10634.3	24801.8	55928.6	103962.2	127421.4	105194.4	53645.0	16932.4	4201.0	1062.4	281.4	56.3	2.8	0.0	508419.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

225.7	283.4	353.9	373.1	343.1	349.0	437.6	605.4	875.5	1326.6	2064.8	2937.4	4015.3	5126.7	6401.8	0.0	534.6

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			12.55	141.25	210.38	149.14	272.53										165.19
45-49			47.76	109.10	180.56	130.01	266.10	872.65									200.41
50-54		232.18	37.05	145.77	185.17	281.49	259.80	388.05	468.91								268.30
55-59		464.14	64.73	140.31	228.25	198.85	313.52	363.22	473.17	798.22							337.84
60-64		-81.46	332.24	231.00	210.75	193.03	561.10	428.15	574.59	334.29	1811.95						441.56
65-69			829.37	269.90	824.85	1029.73	934.93	543.26	555.27	1221.97	1155.27						806.88
70-74				372.83	1385.73	1291.57	775.07	1028.81	654.64	1700.57	736.42	4125.90					1119.26
75-79				-296.95	341.82	-565.06	1101.66	1858.30	1795.82	147.91	1151.21						918.20
80-84						4913.32	2087.75	1526.11	842.28	-763.94	7087.92						2449.41
CMA	-41.04	89.52	106.83	155.04	241.57	234.88	340.13	437.46	558.04	864.43	1196.28	2896.32	2736.27				366.48

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44			1.13	2.49	3.22	2.57	3.88										2.74
45-49			1.30	1.68	2.13	1.81	2.66	6.44									2.25
50-54		1.85	1.14	1.54	1.68	2.04	1.96	2.43	2.73								2.06
55-59		2.05	1.14	1.31	1.50	1.43	1.68	1.79	2.03	2.74							1.73
60-64		0.90	1.43	1.30	1.27	1.25	1.75	1.55	1.74	1.43	3.33						1.57
65-69			1.63	1.20	1.63	1.78	1.71	1.41	1.42	1.93	1.88						1.61
70-74				1.17	1.62	1.58	1.35	1.46	1.29	1.76	1.33	2.85					1.50
75-79				0.92	1.09	0.85	1.29	1.49	1.47	1.04	1.30						1.24
80-84						1.77	1.33	1.24	1.13	0.88	2.11						1.38
CMA	0.82	1.32	1.30	1.42	1.70	1.67	1.78	1.72	1.64	1.65	1.58	1.99	1.68				1.69

CMA=Combined ages.
CMD=Combined durations.

Comparison of All-Cause Mortality of Current Smokers and Neversmokers for White Females Aged Between 40 and 84

21-39 cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	94.7	160.4	271.6	459.9	778.7	1318.6	2232.8	3780.7	6401.8

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	1	0	3	14	25	4	0	0	0	0	0	0	0	0	0	47
45-49	0	0	1	1	9	40	60	7	0	0	0	0	0	0	0	0	118
50-54	0	0	1	5	10	33	83	89	11	0	0	0	0	0	0	0	232
55-59	0	1	1	7	10	22	46	98	77	8	0	0	0	0	0	0	270
60-64	0	0	0	4	9	14	38	72	82	41	3	0	0	0	0	0	263
65-69	0	0	0	4	10	10	19	35	32	22	13	2	0	0	0	0	147
70-74	0	0	0	1	3	6	14	20	25	21	16	2	1	0	0	0	109
75-79	0	0	0	0	3	2	9	10	20	9	4	8	1	0	0	0	66
80-84	0	0	0	0	0	1	0	2	3	3	2	1	4	0	0	0	16
CMA	0	2	3	25	68	153	273	333	250	104	38	13	6	0	0	0	1268

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	16.6	129.8	474.0	1710.3	5853.9	7467.3	755.2	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16411.1
45-49	21.5	123.9	430.4	1192.3	3567.5	10748.8	12025.3	1259.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29374.1
50-54	27.4	156.8	380.5	919.2	2057.6	5728.7	14152.9	12389.2	1179.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	36994.3
55-59	10.4	95.3	313.1	666.4	1314.5	2727.0	6276.9	11760.9	7628.5	537.3	1.3	0.0	0.0	0.0	0.0	0.0	31331.6
60-64	0.0	38.9	186.7	371.1	728.2	1419.3	2523.5	4388.3	5435.9	2466.3	161.2	5.0	0.0	0.0	0.0	0.0	17724.2
65-69	0.0	0.0	52.3	180.1	314.4	611.0	1101.3	1631.7	1838.5	1535.8	558.8	50.4	4.0	0.0	0.0	0.0	7878.3
70-74	0.0	0.0	0.0	49.3	109.1	189.3	394.8	591.7	658.1	481.6	357.8	143.2	20.8	2.0	0.0	0.0	2997.6
75-79	0.0	0.0	0.0	0.0	28.7	70.2	102.6	164.6	188.5	117.4	93.0	86.3	27.7	4.5	0.0	0.0	883.3
80-84	0.0	0.0	0.0	0.0	0.0	12.9	24.3	28.8	38.4	27.1	16.5	14.9	15.2	7.1	3.0	0.0	188.3
CMA	75.9	544.8	1837.0	5088.6	13973.8	28974.5	37356.8	32218.4	16971.9	5168.4	1188.5	299.8	67.7	13.6	3.0	0.0	143782.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
227.3	273.3	313.4	303.8	259.3	273.4	363.3	517.5	760.9	1138.9	1782.9	2707.6	3746.1	4919.6	6401.8	0.0	460.1

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				80.69	144.43	240.07	434.96										191.67
45-49			71.94	-76.53	91.88	211.74	338.55	395.45									241.32
50-54			-8.79	272.37	214.41	304.45	314.85	446.77	661.40								355.53
55-59			-140.49	590.50	300.85	346.86	272.95	373.38	549.48	1029.17							401.86
60-64				299.20	457.25	207.71	727.12	862.02	729.76	883.72	1082.70						705.12
65-69				902.59	1861.89	318.06	406.71	826.44	421.94	113.84	1007.67						547.27
70-74						936.24	1313.03	1147.51	1566.14	2127.84	2239.62						1403.49
75-79								2295.23	6829.36								3690.96
80-84																	2097.52
CMA		93.76	-150.05	187.52	227.31	254.60	367.45	516.08	712.08	873.35	1414.41	1629.32					421.81

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				1.85	2.52	3.53	5.59										3.02
45-49			1.45	0.52	1.57	2.32	3.11	3.47									2.50
50-54			0.97	2.00	1.79	2.12	2.16	2.64	3.44								2.31
55-59			0.69	2.28	1.65	1.75	1.59	1.81	2.19	3.24							1.87
60-64				1.38	1.59	1.27	1.93	2.11	1.94	2.13	2.39						1.91
65-69				1.68	2.41	1.24	1.31	1.63	1.32	1.09	1.76						1.42
70-74						1.42	1.59	1.51	1.70	1.95	2.00						1.63
75-79								1.61	2.81								1.98
80-84																	1.33
CMA		1.34	0.52	1.62	1.88	1.93	2.01	2.00	1.94	1.77	1.79	1.60					1.92

CMA=Combined ages.
CMD=Combined durations.

Comparison of All-Cause Mortality of Current Smokers
and Neversmokers for White Females Aged Between 40 and 84
40+ cigarettes per day for smokers

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	94.7	160.4	271.6	459.9	778.7	1318.6	2232.8	3780.7	6401.8

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	0	0	2	8	9	1	0	0	0	0	0	0	0	0	0	20
45-49	0	0	1	2	3	20	28	2	0	0	0	0	0	0	0	0	56
50-54	0	0	0	3	9	14	28	38	6	0	0	0	0	0	0	0	98
55-59	0	1	3	1	2	11	21	47	47	8	0	0	0	0	0	u	141
60-64	0	0	1	1	6	8	19	26	35	23	4	0	0	0	0	0	123
65-69	0	0	0	3	2	6	10	12	10	14	9	0	0	0	0	0	66
70-74	0	0	0	0	2	4	2	9	5	9	5	3	0	0	0	0	39
75-79	0	0	0	0	1	2	1	2	2	4	1	4	1	0	0	0	18
80-84	0	0	0	0	0	0	1	1	0	2	1	1	0	0	0	0	6
CMA	0	1	5	12	33	74	111	137	105	60	20	8	1	0	0	0	567

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	17.0	50.8	147.1	569.4	1945.5	2472.4	298.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5503.2
45-49	15.0	75.3	160.3	392.6	1147.0	3499.3	3981.3	499.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9772.4
50-54	10.3	64.6	183.3	342.3	732.5	1971.5	4861.1	4330.6	537.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	13034.8
55-59	4.4	47.9	135.9	276.6	517.3	1023.0	2286.0	4217.5	2948.2	309.2	0.0	0.0	0.0	0.0	0.0	0.0	11766.0
60-64	0.0	14.0	68.8	172.5	322.8	571.7	935.1	1624.3	2099.4	1037.8	95.6	0.0	0.0	0.0	0.0	0.0	6941.8
65-69	0.0	0.0	27.2	77.8	123.5	236.8	455.4	616.2	700.8	648.3	291.3	20.6	1.0	0.0	0.0	0.0	3199.0
70-74	0.0	0.0	0.0	23.0	52.8	63.4	129.8	229.2	246.6	219.3	147.8	79.8	12.2	1.0	0.0	0.0	1204.8
75-79	0.0	0.0	0.0	0.0	20.8	30.9	28.5	54.1	79.2	65.3	33.2	34.3	15.7	4.0	0.3	0.0	366.2
80-84	0.0	0.0	0.0	0.0	0.0	4.5	7.4	13.0	13.6	19.1	4.3	1.4	5.0	0.3	0.0	0.0	68.6
CMA	46.7	252.6	722.6	1854.3	4962.2	9873.5	12983.3	11586.8	6627.3	2299.9	572.2	136.1	33.8	5.3	0.3	0.0	51856.7

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

189.2	266.7	334.0	337.3	291.2	288.3	370.6	524.1	754.1	1158.3	1645.7	2528.4	3538.6	3610.7	3780.7	0.0	485.5

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				256.51	316.48	269.29	240.00										268.70
45-49				349.05	101.15	411.15	542.90	239.87									412.64
50-54				604.74	957.07	438.52	304.41	605.88	844.51								480.24
55-59					-98.34	615.38	458.74	654.51	1134.32	2127.71							738.48
60-64					1080.30	620.69	1253.18	821.93	868.40	1437.61							993.14
65-69						1214.82	877.19	626.92	108.27	840.78	1770.64						744.54
70-74								1694.50	-205.06	1870.57							1004.41
75-79																	1135.08
80-84																	
CMA		129.19	358.01	309.88	387.51	461.22	484.29	658.26	830.20	1450.46	1849.79						607.88

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44				3.71	4.34	3.84	3.53										3.84
45-49				3.18	1.63	3.56	4.38	2.50									3.57
50-54				3.23	4.52	2.61	2.12	3.23	4.11								2.77
55-59				0.79	0.84	2.34	2.00	2.42	3.47	5.63							2.61
60-64					2.39	1.80	2.61	2.06	2.14	2.85							2.28
65-69						1.92	1.67	1.48	1.08	1.64	2.34						1.56
70-74								1.76	0.91	1.84							1.45
75-79																	1.30
80-84																	
CMA		1.48	2.07	1.92	2.33	2.60	2.31	2.26	2.10	2.25	2.12						2.25

CMA=Combined ages.
CMD=Combined durations.

Comparison of All-Cause Mortality of Current Smokers
and Neversmokers for White Females Aged Between 40 and 84
Current smokers of any number of cigarettes

Neversmoker death rates per 100,000 by age groups using the logistic regression model are

Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84
Rate	94.7	160.4	271.6	459.9	778.7	1318.6	2232.8	3780.7	6401.8

Observed deaths for smokers based on age groups \ durations (years)

Duration

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	0	3	7	42	121	126	15	0	0	0	0	0	0	0	0	0	314
45-49	2	15	24	37	130	305	379	40	1	0	0	0	0	0	0	0	933
50-54	2	14	52	78	139	335	663	567	55	0	0	0	0	0	0	0	1905
55-59	2	25	56	101	151	272	559	835	571	42	0	0	0	0	0	0	2614
60-64	0	18	74	85	155	228	453	601	639	288	30	1	0	0	0	0	2572
65-69	0	0	42	88	141	232	326	373	390	321	108	16	1	0	0	0	2038
70-74	0	0	0	58	133	138	215	287	295	221	141	67	5	1	0	0	1561
75-79	0	0	0	0	83	139	143	196	204	151	92	65	30	7	0	0	1110
80-84	0	0	0	0	0	69	131	98	91	69	69	37	28	16	5	0	613
CMA	6	75	255	489	1053	1844	2884	2997	2246	1092	440	186	64	24	5	0	13660

Total PYO

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44	1104.3	4043.2	8113.1	21698.6	54405.9	57472.9	4341.8	28.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	151208.5
45-49	1629.9	6190.4	10723.3	19058.3	44586.0	102808.7	94744.3	7006.4	37.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	286787.7
50-54	1562.9	6889.1	12970.8	19558.5	32395.2	72038.2	137144.0	100510.3	6775.8	39.5	0.0	0.0	0.0	0.0	0.0	0.0	389684.3
55-59	789.3	5422.8	11383.7	16949.3	24985.0	41468.0	78361.0	114777.3	63079.1	3635.7	37.9	0.0	0.0	0.0	0.0	0.0	360689.1
60-64	0.0	2197.3	8255.5	11221.7	16547.5	24350.0	36819.5	53736.7	54691.7	21985.2	1244.3	28.4	0.0	0.0	0.0	0.0	231077.7
65-69	0.0	0.0	3138.9	7647.5	8748.9	13145.7	18521.5	23421.2	23162.7	16569.9	5764.2	469.3	22.3	0.0	0.0	0.0	120612.0
70-74	0.0	0.0	0.0	2803.7	5589.4	5732.6	8548.8	10269.4	10189.3	7227.5	4646.9	1884.3	229.6	12.4	0.0	0.0	57133.9
75-79	0.0	0.0	0.0	0.0	1977.6	3368.6	3178.0	4094.6	3983.8	3196.3	1870.7	1320.2	601.5	98.0	3.3	0.0	23692.5
80-84	0.0	0.0	0.0	0.0	0.0	1039.9	1458.3	1215.6	1258.6	980.5	741.3	435.2	355.8	161.9	32.8	2.0	7691.9
CMA	5086.4	24745.8	54585.3	98937.6	189235.5	321424.5	363127.3	315060.3	163178.2	53634.6	14305.3	4137.3	1209.3	272.3	36.0	2.0	1628977.5

Neversmoker death rates per 100,000 standardized to current smoker age \ duration distribution

226.8	301.2	399.6	437.7	406.8	401.5	476.3	635.2	918.4	1401.2	2151.7	3051.5	4212.6	5268.5	6165.2	6401.8	575.5

Excess Mortality (Rate Differences)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44		-20.53	-8.45	98.84	127.68	124.51	250.76										112.93
45-49	-37.69	81.80	63.41	33.74	131.17	136.27	239.63	410.51									164.93
50-54	-143.63	-68.38	129.30	127.21	157.48	193.43	211.84	292.52	540.11								217.01
55-59	-206.49	1.12	32.04	136.00	144.47	196.04	253.47	267.60	445.32	695.33							264.43
60-64		40.45	117.64	-21.26	157.97	157.62	451.60	339.69	389.64	531.25	1632.36						334.32
65-69			19.44	-167.90	293.02	446.23	441.51	273.97	365.14	618.64	555.04	2091.09					371.11
70-74				-164.05	146.72	174.52	282.19	561.93	662.44	824.99	801.50	1322.86	-54.91				499.41
75-79				416.33	345.65	718.97	1006.10	1339.96	943.45	1137.32	1142.91	1206.82					904.31
80-84					233.33	2519.86	1660.15	828.53	635.41	2905.73	2100.67	1467.03	3479.81				1567.59
CMA	-106.82	1.92	67.52	56.56	149.69	172.17	276.43	316.03	458.04	634.83	924.07	1444.12	1079.90	3644.20			263.01

Relative Risk (Rate Ratios)

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	CMD
40-44		0.78	0.91	2.04	2.35	2.31	3.65										2.19
45-49	0.77	1.51	1.40	1.21	1.82	1.85	2.49	3.56									2.03
50-54	0.47	0.75	1.48	1.47	1.58	1.71	1.78	2.08	2.99								1.80
55-59	0.55	1.00	1.07	1.30	1.31	1.43	1.55	1.58	1.97	2.51							1.57
60-64		1.05	1.15	0.97	1.20	1.20	1.58	1.44	1.50	1.68	3.10						1.43
65-69			1.01	0.87	1.22	1.34	1.33	1.21	1.28	1.47	1.42	2.59					1.28
70-74				0.93	1.07	1.08	1.13	1.25	1.30	1.37	1.36	1.59	0.98				1.22
75-79				1.11	1.09	1.19	1.27	1.35	1.25	1.30	1.30	1.32					1.24
80-84					1.04	1.39	1.26	1.13	1.10	1.45	1.33	1.23	1.54				1.24
CMA	0.52	1.01	1.17	1.13	1.37	1.43	1.58	1.50	1.50	1.45	1.43	1.47	1.26	1.67			1.46

CMA=Combined ages.
CMD=Combined durations.

Appendix C

Summary of Person-Years of Observation and Deaths, by Subject Group

Each table provides person-years of observation (PYO's) and number of deaths due to lung cancer (1°, 2°, and 3° cause of death), coronary heart disease, cerebrovascular disease, chronic obstructive pulmonary disease, and all-cause mortality by 5-year age groups. Total PYO's and deaths for each category and total number of subjects (N) are given.

Table	Subject Group
1	White male never-smoker
2	White male current smoker
3	White male former smoker
4	White female never-smoker
5	White female current smoker
6	White female former smoker
7	Black male never-smoker
8	Black male current smoker
9	Black female never-smoker
10	Black female current smoker

White Male Neversmoker   TABLE 1

AGE GROUP	TOTAL PYO	LUNG.C	CORONARY	DEATHS DUE TO CERBRO-V	COPD	ALL.CAUSE
25-29	0.4	0	0	0	0	0
30-34	3793.9	0	1	0	0	6
35-39	15698.5	0	3	0	0	19
40-44	33582.9	2	10	3	0	63
45-49	76421.2	2	63	7	0	195
50-54	145637.8	10	244	37	5	624
55-59	186108.7	22	604	71	5	1359
60-64	166616.6	29	996	132	11	2100
65-69	130530.3	41	1261	238	19	2783
70-74	95753.3	32	1459	426	17	3293
75-79	61181.8	32	1500	565	28	3628
80-84	30235.2	26	1099	544	15	2912
85-89	11439.0	17	663	349	12	1800
90-94	2720.6	1	238	140	6	687
95-99	440.3	1	45	30	1	149
100-04	65.5	0	7	7	0	20
105-09	2.8	0	0	1	0	5
TOTAL	960228.8	215	8193	2550	119	19643
N=	92307					

===

White Male Current Smoker   TABLE 2

AGE GROUP	TOTAL PYO	LUNG.C	CORONARY	DEATHS DUE TO CERBRO-V	COPD	ALL.CAUSE
30-34	8749.4	0	4	0	0	8
35-39	41571.3	3	25	4	0	94
40-44	89081.4	22	152	21	2	369
45-49	199033.0	96	612	64	4	1350
50-54	361439.0	317	1797	176	43	3826
55-59	424133.3	682	3111	363	146	6962
60-64	321538.3	898	3450	536	317	8240
65-69	190655.4	768	2967	576	320	7514
70-74	97079.8	500	2173	552	305	5781
75-79	41093.3	276	1258	448	207	3617
80-84	13127.8	73	581	247	87	1723
85-89	2877.3	18	221	107	26	616
90-94	456.7	2	38	19	2	108
95-99	51.3	1	6	4	0	15
100-04	0.3	0	1	0	0	1
TOTAL	1790887.6	3656	16396	3117	1459	40224
N=	174997					

White Male Former Smoker
TABLE 3

AGE GROUP	TOTAL PYO	LUNG.C	CORONARY	DEATHS DUE TO CERBRO-V	COPD	ALL.CAUSE
30-34	752.0	0	0	0	0	2
35-39	4554.1	0	0	1	0	6
40-44	11096.3	1	5	1	0	26
45-49	30773.6	2	48	6	2	106
50-54	68236.4	13	190	12	9	408
55-59	94644.1	30	465	46	18	1019
60-64	87344.8	74	669	95	59	1538
65-69	64653.1	71	797	142	79	1764
70-74	40367.8	77	772	201	70	1880
75-79	19525.1	36	502	154	64	1272
80-84	6826.2	23	290	110	22	771
85-89	1612.2	4	114	40	8	284
90-94	323.6	0	29	14	0	77
95-99	31.8	0	5	3	0	14
100-04	0.9	0	0	1	0	1
TOTAL	430742.0	331	3886	826	331	9168
N=	42225					

==

White Female Neversmoker
TABLE 4

AGE GROUP	TOTAL PYO	LUNG.C	CORONARY	DEATHS DUE TO CERBRO-V	COPD	ALL.CAUSE
30-34	14176.3	0	0	2	0	13
35-39	69449.8	0	1	2	0	70
40-44	180915.8	3	15	12	0	271
45-49	379841.3	14	57	36	2	814
50-54	599269.3	30	177	107	7	1952
55-59	706330.2	49	475	179	9	3094
60-64	660231.2	95	1064	355	13	4743
65-69	548399.4	92	1902	685	25	6613
70-74	409282.6	86	2790	1126	34	8361
75-79	260511.1	100	3440	1688	39	9868
80-84	132398.0	63	3033	1827	53	9052
85-89	52196.2	35	2224	1423	19	6431
90-94	14571.8	6	1010	626	9	2968
95-99	2464.0	0	239	150	0	723
100-04	220.2	0	29	19	0	95
105-09	11.0	0	2	0	1	8
TOTAL	4030268.0	573	16458	8237	211	55076
N=	375649					

296

White Female Current Smoker   TABLE 5

AGE GROUP	TOTAL PYO	LUNG.C	CORONARY	DEATHS DUE TO CERBRO-V	COPD	ALL.CAUSE
25-29	3.0	0	0	0	0	0
30-34	13757.8	0	1	2	0	12
35-39	63805.8	1	6	7	0	78
40-44	153735.8	16	37	19	2	321
45-49	291998.5	58	124	74	8	955
50-54	397548.8	110	348	180	13	1976
55-59	369088.8	123	602	207	34	2678
60-64	237725.0	131	679	265	54	2621
65-69	125337.8	101	686	232	40	2122
70-74	60067.8	48	595	207	35	1648
75-79	25175.9	25	419	193	31	1182
80-84	8280.9	5	234	109	5	646
85-89	2115.7	2	101	41	1	245
90-94	316.6	1	27	16	2	76
95-99	45.4	0	4	2	0	13
100-04	2.4	0	1	0	0	2
TOTAL	1749005.9	621	3864	1554	225	14575
N=	158727					

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White Female Former Smoker   TABLE 6

AGE GROUP	TOTAL PYO	LUNG.C	CORONARY	DEATHS DUE TO CERBRO-V	COPD	ALL.CAUSE
30-34	1082.9	0	0	0	0	3
35-39	6360.8	0	0	0	0	8
40-44	17366.3	0	0	0	1	30
45-49	36990.3	0	4	7	0	100
50-54	53849.9	7	21	7	2	222
55-59	53312.2	6	39	16	3	273
60-64	36882.9	5	60	30	8	322
65-69	21866.7	6	76	36	1	267
70-74	12210.8	2	107	35	5	323
75-79	5917.1	3	84	43	3	254
80-84	2225.4	0	62	44	3	189
85-89	626.4	0	32	24	0	93
90-94	119.4	0	12	9	0	27
95-99	12.1	0	0	0	0	4
100-04	3.5	0	1	0	0	2
TOTAL	248826.6	29	498	251	26	2117
N=	22810					

Black Male Neversmoker   TABLE 7

AGE GROUP	TOTAL PYO	LUNG.C	CORONARY	CERBRO-V	COPD	ALL.CAUSE
30-34	170.2	0	0	0	0	0
35-39	715.1	0	0	0	0	1
40-44	1375.0	0	0	1	0	5
45-49	2075.9	1	1	2	0	12
50-54	3018.1	0	5	3	0	26
55-59	3555.1	0	7	10	0	41
60-64	3155.9	1	17	6	0	56
65-69	2449.8	0	15	14	0	66
70-74	1891.1	0	22	21	0	94
75-79	1240.9	0	26	13	0	90
80-84	667.3	0	19	10	0	62
85-89	256.3	0	8	8	0	38
90-94	62.8	0	4	4	0	15
95-99	13.8	0	2	1	0	4
100-04	2.5	0	1	0	0	2
TOTAL	20649.7	2	127	93	0	512
N=	2157					

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Black Male Current Smoker   TABLE 8

AGE GROUP	TOTAL PYO	LUNG.C	CORONARY	CERBRO-V	COPD	ALL.CAUSE
30-34	576.5	0	0	0	0	1
35-39	2335.1	0	0	1	0	15
40-44	4230.7	1	5	3	0	21
45-49	6173.1	4	11	3	0	56
50-54	8012.8	6	31	9	1	100
55-59	8011.7	13	38	17	4	144
60-64	5612.4	19	56	23	6	197
65-69	3215.6	4	40	17	3	126
70-74	1778.8	7	29	15	4	98
75-79	919.1	8	17	16	4	96
80-84	363.9	0	14	8	1	38
85-89	116.2	0	9	1	1	20
90-94	16.9	0	2	2	0	4
95-99	1.8	0	0	0	0	1
TOTAL	41364.4	62	252	115	24	917
N=	4218					

Black Female Neversmoker   TABLE 9

AGE GROUP	TOTAL PYO	LUNG.C	CORONARY	DEATHS DUE TO CERBRO-V	COPD	ALL.CAUSE
30-34	881.8	0	0	0	0	1
35-39	3751.3	0	0	0	0	9
40-44	7548.4	0	1	3	1	21
45-49	11581.5	1	6	3	0	49
50-54	15455.3	3	16	7	1	82
55-59	16839.9	1	24	25	1	143
60-64	14729.4	3	47	23	0	199
65-69	11467.8	1	56	39	1	242
70-74	8234.3	3	58	34	0	238
75-79	5435.3	0	59	55	1	235
80-84	2748.7	0	43	46	0	196
85-89	1079.7	1	31	38	1	141
90-94	282.1	1	9	13	0	50
95-99	73.5	0	3	3	0	15
100-04	33.0	0	1	1	0	3
105-09	10.5	0	0	1	0	1
110-14	5.3	0	1	0	0	1
TOTAL	100157.6	14	355	291	6	1626
N=	9881					

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Black Female Current Smoker   TABLE 10

AGE GROUP	TOTAL PYO	LUNG.C	CORONARY	DEATHS DUE TO CERBRO-V	COPD	ALL.CAUSE
30-34	934.0	0	0	1	0	1
35-39	3674.4	0	2	2	0	12
40-44	6488.3	0	2	3	0	18
45-49	7941.0	1	5	3	0	40
50-54	7940.3	4	13	6	0	58
55-59	6139.4	0	17	8	0	66
60-64	3670.9	3	18	7	1	57
65-69	1892.3	2	11	5	0	38
70-74	879.0	0	9	5	0	25
75-79	372.9	0	3	2	0	20
80-84	112.4	0	2	1	0	9
85-89	17.1	0	1	0	0	1
90-94	2.8	0	0	0	0	1
TOTAL	40064.8	10	83	43	1	346
N=	3835					

Appendix D

Tables of Observed and Fitted Death Rates for Never-Smokers, by Sex and Age Group

For 5-year age groups between 40 and 85 years, the observed death rates and the fitted death rates for white never-smokers are given by sex. The modeled rates include Poisson regression and linear regression of log (rate). Modeled rates are weighted to the square root of the total person-years of observation for the cells.

Table   Cause of Death

1   Lung cancer (1°, 2°, and 3° cause of death)

2   Coronary heart disease (1° cause of death)

3   Cerebrovascular disease (1° cause of death)

4   Chronic obstructive pulmonary disease (COPD) (1° cause of death)

5   All-cause mortality

Tables of Observed and Fitted Death Rates for Never Smokers by Age Group
Fitted Rates by Poisson regression and linear regression of log rates.

Table 1:   Lung Cancer, as 1°, 2°, or 3° cause of death

Age Grp	..........MALE..........			..........FEMALE.........		
	obsrvd	pois.rg	lin.reg	obsrvd	pois.rg	lin.rg
40-44	5.96	3.39	3.19	1.66	2.41	2.22
45-49	2.62	5.06	4.81	3.69	3.54	3.31
50-54	6.87	7.56	7.27	5.01	5.19	4.94
55-59	11.82	11.30	10.97	6.94	7.60	7.38
60-64	17.41	16.87	16.56	14.39	11.14	11.03
65-69	31.41	25.20	25.01	16.78	16.33	16.47
70-74	33.42	37.64	37.76	21.01	23.94	24.60
75-79	52.30	56.22	57.01	38.39	35.10	36.74
80-84	85.99	83.98	86.08	47.58	51.45	54.86

Table 2:   Coronary Artery Disease, as 1° cause of death

Age Grp	..........MALE..........			..........FEMALE.........		
	obsrvd	pois.rg	lin.reg	obsrvd	pois.rg	lin.rg
40-44	29.78	73.26	46.22	8.29	10.64	6.50
45-49	82.44	120.58	83.36	15.01	21.01	14.05
50-54	167.54	198.46	150.34	29.54	41.49	30.39
55-59	324.54	326.64	271.13	67.25	81.95	65.72
60-64	597.78	537.61	488.98	161.16	161.84	142.15
65-69	966.06	884.83	881.84	346.83	319.61	307.47
70-74	1523.71	1456.31	1590.36	681.68	631.21	665.05
75-79	2451.71	2396.88	2868.12	1320.48	1246.59	1438.45
80-84	3634.84	3944.93	5172.51	2290.82	2461.92	3111.29

Table 3:   Cerebro-Vascular Disease, as 1° cause of death

Age Grp	..........MALE..........			..........FEMALE.........		
	obsrvd	pois.rg	lin.reg	obsrvd	pois.rg	lin.rg
40-44	8.93	4.52	5.41	6.63	2.69	4.56
45-49	9.16	9.60	11.05	9.48	5.86	8.97
50-54	25.41	20.38	22.58	17.86	12.77	17.64
55-59	38.15	43.26	46.14	25.34	27.84	34.69
60-64	79.22	91.82	94.28	53.77	60.69	68.22
65-69	182.33	194.91	192.66	124.91	132.30	134.15
70-74	444.89	413.73	393.70	275.12	288.38	263.83
75-79	923.48	878.21	804.53	647.96	628.60	518.86
80-84	1799.23	1864.17	1644.06	1379.93	1370.21	1020.40

Table 4: C O P D, as 1° cause of death

| | ....MALE.......... | | | ....FEMALE......... | | |
Age Grp	obsrvd	pois.rg	lin.reg	obsrvd	pois.rg	lin.rg
40-44	0.00	0.73	0.83	0.00	0.15	0.27
45-49	0.00	1.28	1.42	0.53	0.29	0.48
50-54	3.43	2.22	2.42	1.17	0.58	0.85
55-59	2.69	3.87	4.11	1.27	1.16	1.51
60-64	6.60	6.73	6.99	1.97	2.30	2.69
65-69	14.56	11.71	11.90	4.56	4.56	4.77
70-74	17.75	20.39	20.26	8.31	9.04	8.48
75-79	45.77	35.49	34.47	14.97	17.92	15.06
80-84	49.61	61.78	58.66	40.03	35.54	26.76

Table 5: All Cause Mortality

| | ....MALE.......... | | | ....FEMALE......... | | |
Age Grp	obsrvd	pois.rg	lin.reg	obsrvd	pois.rg	lin.rg
40-44	187.60	161.33	167.70	149.79	94.73	128.45
45-49	255.16	269.29	277.47	214.30	160.40	204.30
50-54	428.46	449.50	459.11	325.73	271.60	324.94
55-59	730.22	750.30	759.65	438.04	459.89	516.82
60-64	1260.38	1252.41	1256.93	718.38	778.73	822.01
65-69	2132.07	2090.53	2079.73	1205.87	1318.61	1307.42
70-74	3439.05	3489.53	3441.15	2042.84	2232.77	2079.46
75-79	5929.87	5824.74	5693.79	3787.94	3780.72	3307.41
80-84	9631.16	9722.71	9421.03	6836.96	6401.82	5260.46

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