

**MORTALITY FROM SMOKING  
IN DEVELOPED COUNTRIES  
1950–2000**

(2nd edition, revised June 2006:  
[www.deathsfromsmoking.net](http://www.deathsfromsmoking.net))

**Richard Peto, Alan D Lopez,  
Jillian Boreham and Michael Thun**

**ESTONIA**

**Raw data** (pages 164–65, 166–67)

**Analyses** (pages 168–69, 170–71, 172–73)

**Appendix** (pages 174–75)

**ESTONIA: 2000**

	No. of deaths (Source: WHO)			Standardised rates (defined overleaf)			Annual death rates / 100,000 (zero denoted by -)								
	All ages			0-34	35-69	All ages	0-34	35-69	0-4	5-9	10-14	15-19	20-24	25-29	30-34
	M	9265	546	4963	1596.3	179.7	2050.0	266.0	42.3	34.5	90.6	237.0	251.6	335.6	
ALL CAUSES	F	9138	202	2315	790.8	72.5	734.3	193.9	31.5	17.2	41.2	49.7	65.5	108.4	
Tuberculosis	M	84	9	70	13.5	2.9	25.7	-	-	-	-	4.2	-	16.1	
	F	22	2	18	2.8	0.6	5.3	-	-	-	-	-	-	4.4	
HIV	M	3	-	3	0.5	-	1.0	-	-	-	-	-	-	-	
	F	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other infective and parasitic	M	19	7	11	3.2	2.6	4.4	9.6	2.5	-	-	4.2	2.1	-	
	F	19	3	9	2.2	1.3	2.9	6.8	-	-	-	2.2	-	-	
ALL CANCER	M	1806	26	1025	298.4	8.5	451.5	9.6	5.0	3.6	1.9	14.6	6.3	18.4	
	F	1559	22	737	151.1	7.2	232.9	6.8	2.6	-	2.0	4.3	8.5	26.5	
Mouth and pharynx cancer	M	81	-	59	13.5	-	24.5	-	-	-	-	-	-	-	
	F	18	-	9	1.7	-	2.9	-	-	-	-	-	-	-	
Oesophagus cancer	M	38	-	25	6.4	-	10.3	-	-	-	-	-	-	-	
	F	5	-	-	0.4	-	-	-	-	-	-	-	-	-	
Stomach cancer	M	206	1	113	33.8	0.3	49.9	-	-	-	-	-	-	2.3	
	F	161	1	58	14.2	0.3	18.3	-	-	-	-	-	2.1	-	
Colorectal cancer	M	159	-	77	26.9	-	35.0	-	-	-	-	-	-	-	
	F	204	-	74	17.7	-	23.8	-	-	-	-	-	-	-	
Liver cancer	M	52	1	34	8.6	0.5	15.1	3.2	-	-	-	-	-	-	
	F	41	-	19	3.9	-	6.2	-	-	-	-	-	-	-	
Pancreas cancer	M	87	1	58	14.4	0.3	24.7	-	-	-	-	-	-	2.3	
	F	83	-	39	7.7	-	12.6	-	-	-	-	-	-	-	
Larynx cancer	M	32	-	21	5.2	-	9.2	-	-	-	-	-	-	-	
	F	2	-	2	0.2	-	0.6	-	-	-	-	-	-	-	
Lung cancer	M	566	1	362	89.8	0.3	162.3	-	-	-	-	-	2.1	-	
	F	121	-	45	10.8	-	14.5	-	-	-	-	-	-	-	
Malignant melanoma	M	16	1	7	2.6	0.3	3.1	-	-	-	-	-	-	2.3	
	F	35	-	18	3.3	-	5.7	-	-	-	-	-	-	-	
Female breast cancer	F	277	5	183	30.7	1.6	56.6	-	-	-	-	-	-	11.1	
Cervix cancer	F	61	2	37	6.9	0.6	11.3	-	-	-	-	-	-	4.4	
Other uterine cancer	F	70	-	33	6.6	-	10.3	-	-	-	-	-	-	-	
Ovarian cancer	F	111	-	66	11.5	-	21.1	-	-	-	-	-	-	-	
Prostate cancer	M	180	-	50	32.8	-	23.7	-	-	-	-	-	-	-	
Bladder cancer	M	54	-	19	9.3	-	8.9	-	-	-	-	-	-	-	
	F	28	-	5	2.3	-	1.6	-	-	-	-	-	-	-	
Other and ill-defined cancer sites	M	243	14	152	40.2	4.6	63.8	6.4	2.5	1.8	-	10.4	4.2	6.9	
	F	231	9	105	22.5	3.0	33.5	3.4	2.6	-	-	4.3	2.1	8.8	
Hodgkin's disease	M	2	1	1	0.3	0.3	0.4	-	-	-	-	-	-	2.3	
	F	3	1	1	0.3	0.3	0.3	-	-	-	-	-	2.1	-	
Myeloma and non-Hodgkin lymphomas	M	45	-	28	7.2	-	12.1	-	-	-	-	-	-	-	
	F	60	-	25	5.5	-	7.8	-	-	-	-	-	-	-	
Leukaemia	M	45	6	19	7.5	1.8	8.4	-	2.5	1.8	1.9	4.2	-	2.3	
	F	48	4	18	4.7	1.4	5.8	3.4	-	-	2.0	-	2.1	2.2	
Diabetes	M	55	1	32	9.3	0.3	13.9	-	-	-	-	-	2.1	-	
	F	71	4	30	6.5	1.3	9.5	-	-	-	-	-	-	8.8	
ALL VASCULAR DISEASE	M	4296	24	1987	760.0	7.5	854.6	-	-	1.8	-	8.3	16.9	25.3	
	F	5686	10	938	448.8	3.2	302.3	3.4	-	1.9	2.0	-	8.5	6.6	
Rheumatic heart disease and fever	M	24	-	22	3.8	-	9.2	-	-	-	-	-	-	-	
	F	40	2	21	3.9	0.6	6.7	-	-	-	-	-	2.1	2.2	
Hypertensive disease	M	133	1	78	22.4	0.3	34.1	-	-	-	-	-	2.1	-	
	F	199	-	53	16.4	-	17.3	-	-	-	-	-	-	-	
Ischaemic heart disease	M	2576	7	1097	462.7	2.3	478.8	-	-	-	-	2.1	-	13.8	
	F	3364	2	448	259.4	0.6	146.0	-	-	1.9	-	-	-	2.2	
Pulmonary embolism and other venous disease	M	26	-	21	4.0	-	8.9	-	-	-	-	-	-	-	
	F	42	-	12	3.7	-	3.7	-	-	-	-	-	-	-	
Cerebrovascular disease	M	1112	6	460	196.5	1.9	201.2	-	-	-	-	-	6.3	6.9	
	F	1792	2	287	141.0	0.8	92.3	3.4	-	-	2.0	-	-	-	
Other vascular disease	M	425	10	309	70.6	3.0	122.3	-	-	1.8	-	6.2	8.5	4.6	
	F	249	4	117	24.3	1.2	36.3	-	-	-	-	-	6.3	2.2	
Chronic obstructive pulmonary disease	M	160	1	63	26.9	0.3	29.0	-	-	-	1.9	-	-	-	
	F	69	1	18	5.8	0.3	5.8	-	-	-	-	2.1	-	-	
Other respiratory disease	M	273	10	204	46.0	3.4	78.4	6.4	-	-	-	2.1	6.3	9.2	
	F	107	9	43	11.3	3.7	13.5	17.0	2.6	-	-	2.2	2.1	2.2	
Peptic ulcer	M	54	-	39	9.0	-	16.6	-	-	-	-	-	-	-	
	F	28	-	9	2.5	-	2.8	-	-	-	-	-	-	-	
Liver cirrhosis	M	171	8	145	27.7	2.6	55.2	-	-	-	-	2.1	2.1	13.8	
	F	95	1	72	11.1	0.3	22.1	-	-	-	-	-	2.1	-	
Renal disease	M	53	1	25	9.2	0.3	11.2	-	-	-	-	-	-	2.3	
	F	91	1	27	7.6	0.4	8.7	-	2.6	-	-	-	-	-	
Pregnancy, birth and congenital and perinatal causes	F	5	3	2	0.7	0.9	0.6	-	-	-	2.0	2.2	-	2.2	
Ill-defined causes	M	59	55	4	14.1	24.3	1.7	160.3	2.5	3.6	1.9	-	2.1	-	
	F	46	39	4	10.8	18.2	1.2	115.6	5.2	-	-	2.2	4.2	-	
Other medical causes	M	288	13	114	56.4	4.1	44.1	3.2	-	1.8	1.9	10.4	2.1	9.2	
	F	534	3	28	40.3	1.1	9.1	3.4	-	-	-	-	2.1	2.2	
ALL NON-MEDICAL CAUSES	M	1609	367	1050	265.2	114.7	387.8	60.9	27.4	20.0	81.1	185.0	196.6	232.2	
	F	483	92	265	59.0	30.2	81.0	37.4	15.7	9.5	31.4	34.6	33.8	48.7	
Road traffic accidents	M	166	76	80	25.5	22.8	28.9	-	2.5	7.3	28.3	49.9	25.4	46.0	
	F	58	22	25	7.4	6.6	7.8	-	-	3.8	9.8	13.0	6.3	13.3	
Fire	M	104	14	71	17.6	4.9	27.7	9.6	7.5	1.8	-	4.2	2.1	9.2	
	F	47	7	22	5.7	2.7	6.6	10.2	2.6	1.9	-	-	-	4.4	
Suicide	M	289	68	194	46.1	20.5	69.6	-	-	-	24.5	35.3	46.5	36.8	
	F	88	18	46	10.1	5.3	14.2	-	-	1.9	9.8	2.2	16.9	6.6	
Homicide	M	156	51	92	25.3	15.9	33.5	3.2	5.0	-	11.3	14.6	38.1	39.1	
	F	34	9	16	4.3	2.9	4.7	3.4	-	-	2.0	6.5	6.3	2.2	
<b>POPULATION:</b> (1000s; UN, 2004 revision)	<b>M=male</b>				630.3	318.4	271.6	31.2	40.2	55.1	53.0	48.1	47.3	43.5	
	<b>F=female</b>				736.7	309.7	330.3	29.4	38.1	52.4	51.0	46.3	47.3	45.2	

## 2000: ESTONIA

Annual death rates / 100,000  
(zero denoted by -)

## 9th ICD/10th ICD categories

35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+/NK	M	ALL CAUSES	001-999/A00-Y89
480.7	909.1	1290.5	1677.7	2271.6	3297.7	4422.8	6328.6	8233.6	18397.6	F	Tuberculosis	010-018, 137/ A15-A19, B90
165.3	240.8	429.1	560.8	902.4	1051.9	1790.0	3205.0	5288.7	13768.1	F	HIV	279.5, 279.6/B20-B24
21.5	25.4	29.3	30.7	27.8	23.1	22.1	14.1	-	24.1	F	Other infective and parasitic	Rest of 001-139/rest of A00-B99 excl A33,A34
6.0	9.6	7.9	4.3	-	2.1	7.2	-	-	7.2	F		
2.1	-	2.3	-	-	2.9	-	-	-	-	F		
-	-	-	-	-	-	-	-	-	-	F		
-	2.1	6.8	-	3.1	11.6	7.4	4.7	-	-	M		
-	-	-	-	7.3	8.3	4.8	7.5	6.9	7.2	F		
34.3	59.2	139.6	266.0	527.8	861.3	1272.1	1732.4	1962.6	2120.5	M	ALL CANCER	140-208/C00-C97
42.3	82.9	131.9	230.3	319.5	348.5	474.9	705.0	838.5	992.8	F	Mouth and pharynx cancer	140-149/C00-C14
4.3	2.1	4.5	28.1	43.2	63.6	25.7	51.6	46.7	72.3	M	Oesophagus cancer	150/C15
-	-	-	4.3	4.9	6.2	4.8	7.5	6.9	14.5	F		
2.1	2.1	2.3	12.8	21.6	20.2	11.0	28.2	37.4	36.1	M		
-	-	-	-	-	-	-	7.5	-	7.2	F		
-	6.3	18.0	35.8	64.8	80.9	143.4	239.4	224.3	204.8	M	Stomach cancer	151/C16
4.0	11.6	9.8	8.5	14.6	29.0	50.1	87.5	113.4	123.2	F	Colorectal cancer	153, 154/C18-C21
2.1	6.3	4.5	7.7	30.9	72.3	121.3	150.2	243.0	289.2	M	Liver cancer	155.0, 155.1/C22
2.0	3.9	7.9	10.7	24.4	41.5	76.4	102.5	116.8	199.3	F	Pancreas cancer	157/C25
-	-	4.5	2.6	21.6	40.5	36.8	28.2	74.8	36.1	M		
-	-	-	6.4	14.6	8.3	14.3	17.5	20.6	32.6	F		
2.1	2.1	15.8	23.0	18.5	49.1	62.5	51.6	84.1	96.4	M		
-	-	5.9	10.7	14.6	18.7	38.2	35.0	51.5	54.3	F		
-	-	4.5	5.1	21.6	14.5	18.4	37.6	18.7	12.0	M	Larynx cancer	161/C32
-	-	2.0	-	-	-	2.4	-	-	-	F		
2.1	14.8	42.8	92.1	166.7	306.4	511.0	600.9	495.3	265.1	M	Lung cancer	162/C33, C34
2.0	5.8	2.0	12.8	22.0	16.6	40.6	77.5	110.0	47.1	F		
-	2.1	2.3	2.6	-	-	14.7	18.8	28.0	12.0	M	Malignant melanoma	172/C43
-	-	3.9	6.4	4.9	8.3	16.7	17.5	24.1	10.9	F		
12.1	30.8	61.0	72.5	80.5	74.7	64.4	90.0	79.0	108.7	F	Female breast cancer	174/C50
8.1	7.7	11.8	17.1	17.1	12.4	4.8	20.0	20.6	29.0	F	Cervix cancer	180/C53
4.0	3.9	3.9	10.7	9.8	20.7	19.1	35.0	34.4	47.1	F	Other uterine cancer	179, 182/C54, C55
2.0	13.5	3.9	17.1	48.8	29.0	33.4	27.5	58.4	61.6	F	Ovarian cancer	183.0/C56
-	-	-	2.6	18.5	49.1	95.6	197.2	327.1	638.6	M	Prostate cancer	185/C61
-	-	-	-	15.4	17.3	29.4	65.7	121.5	96.4	M	Bladder cancer	188/C67
-	1.9	-	-	4.9	2.1	2.4	7.5	24.1	47.1	F		
19.3	14.8	29.3	51.2	86.4	109.8	136.0	183.1	158.9	253.0	M	Other and ill-defined cancer sites	Rest of 140-199/ rest of C00-C80, C97
2.0	1.9	11.8	40.5	46.3	58.1	74.0	97.5	137.5	137.7	F	Hodgkin's disease	201/C81
-	-	-	-	-	3.1	-	-	-	3.6	M		
-	6.3	4.5	2.6	15.4	23.1	33.1	46.9	46.7	24.1	M	Myeloma and non- Hodgkin lymphomas	200, 202-203/ C82-C90, C96
4.0	1.9	5.9	4.3	7.3	16.6	14.3	42.5	17.2	47.1	F	Leukaemia	204-208/C91-C95
2.1	2.1	6.8	-	-	14.5	33.1	32.9	56.1	84.3	M		
2.0	-	2.0	8.5	4.9	4.1	19.1	32.5	24.1	21.7	F		
-	4.2	6.8	23.0	3.1	8.7	51.5	42.3	56.1	84.3	M	Diabetes	250/E10-E14
2.0	-	3.9	2.1	4.9	24.9	28.6	40.0	44.7	29.0	F		
81.5	217.8	409.9	570.3	975.3	1502.9	2224.3	3615.0	5074.8	11710.8	M	ALL VASCULAR DISEASE	390-459/I00-I99
26.2	55.9	104.3	159.9	309.8	462.7	997.6	2085.0	3817.9	10119.6	F	Rheumatic heart disease and fever	390-398/I00-I09
2.1	6.3	2.3	2.6	18.5	14.5	18.4	9.4	-	-	M	Hypertensive disease	401-405/I10-I15
2.0	-	2.0	4.3	7.3	12.4	19.1	20.0	10.3	21.7	F		
2.1	10.6	18.0	15.3	34.0	52.0	106.6	108.0	102.8	241.0	M	Ischaemic heart disease	410-414/I20-I25
-	1.9	2.0	6.4	24.4	29.0	57.3	82.5	175.3	224.6	F		
32.2	105.7	164.4	268.5	601.9	896.0	1283.1	2197.2	3186.9	7988.0	M	Pulmonary embolism and other venous	415.1, 451-453/ I26, I80-I82
6.0	13.5	33.5	57.6	139.0	213.7	558.5	1190.0	2147.8	6568.8	F	Cerebrovascular disease	430-438/I60-I69
-	4.2	9.0	5.1	3.1	11.6	29.4	18.8	-	12.0	M		
2.0	1.9	7.9	4.3	2.4	-	7.2	30.0	30.9	32.6	F		
17.2	29.6	85.6	125.3	188.3	381.5	580.9	1084.5	1486.0	3084.3	M	Other respiratory disease	Rest of 390-459/ rest of J00-J98
10.1	9.6	31.5	61.8	85.4	147.3	300.7	695.0	1340.2	3025.4	F		
27.9	61.3	130.6	153.5	129.6	147.4	205.9	197.2	299.1	385.5	M	Peptic ulcer	531-533/K25-K27
6.0	28.9	27.6	25.6	51.2	60.2	54.9	67.5	113.4	246.4	F		
-	2.1	-	15.3	21.6	60.7	102.9	211.3	261.7	277.1	M		
4.0	1.9	3.9	-	4.9	2.1	23.9	20.0	61.9	87.0	F		
25.8	63.4	85.6	94.6	77.2	95.4	106.6	84.5	121.5	337.3	M		
4.0	7.7	7.9	12.8	19.5	16.6	26.3	27.5	51.5	105.1	F		
2.1	8.5	11.3	7.7	30.9	11.6	44.1	28.2	56.1	36.1	M		
-	3.9	2.0	4.3	-	-	9.5	7.5	10.3	47.1	F		
21.5	42.3	45.0	92.1	55.6	75.1	55.1	46.9	46.7	36.1	M	Liver cirrhosis	571/K70, K74
6.0	13.5	35.4	14.9	39.0	29.0	16.7	30.0	17.2	18.1	F		
2.1	-	4.5	10.2	6.2	11.6	44.1	51.6	37.4	144.6	M	Renal disease	580-590/N00-N19
2.0	1.9	2.0	2.1	4.9	12.4	35.8	25.0	61.9	126.8	F		
4.0	-	-	-	-	-	-	-	-	-	M	Pregnancy, birth and other venous	630-676/A34,000-O99
-	2.1	2.3	-	-	7.4	-	-	-	-	F		
-	3.9	-	-	2.4	-	2.4	2.5	3.4	3.6	M		
17.2	29.6	49.5	48.6	30.9	66.5	66.2	84.5	102.8	1590.4	F		
2.0	1.9	5.9	-	17.1	10.4	26.3	37.5	85.9	1677.5	M		
36.5	50.7	67.6	71.6	61.7	101.2	136.0	220.7	252.3	554.2	M	Other medical causes	Rest of 001-799/ rest of A00-R99
10.1	3.9	33.5	34.1	63.4	43.6	66.8	127.5	202.7	311.6	F		
236.1	401.7	430.2	447.6	450.6	465.3	283.1	192.5	261.7	1481.9	M	ALL NON- MEDICAL CAUSES	E800-E999/V01-Y89
56.5	53.9	90.6	95.9	109.8	91.3	69.2	90.0	85.9	235.5	F		
27.9	27.5	36.0	23.0	34.0	46.2	7.4	28.2	18.7	24.1	M	Road traffic accidents	E810-E819, E826-E829/ part of V01-V99, Y850
4.0	3.9	11.8	4.3	19.5	4.1	7.2	7.5	27.5	-	F		
12.9	23.3	22.5	30.7	18.5	34.7	51.5	23.5	18.7	144.6	M	Fire	E890-E899/X00-X09
2.0	3.9	9.8	12.8	7.3	8.3	2.4	12.5	10.3	36.2	F		
38.6	95.1	103.6	69.1	83.3	60.7	36.8	37.6	102.8	96.4	M	Suicide	E950-E959/X60-X84
10.1	11.6	11.8	10.7	14.6	14.5	26.3	35.0	10.3	25.4	F		
30.0	40.2	31.5	35.8	34.0	37.6	25.7	9.4	-	132.5	M	Homicide	E960-E969/ X85-X99, Y00-Y09
2.0	5.8	13.8	2.1	4.9	2.1	2.4	5.0	-	25.4	F		
46.6	47.3	44.4	39.1	32.4	34.6	27.2	21.3	10.7	8.3	M	POPULATION (1000s; UN, 2004 revision)	
49.6	51.9	50.8	46.9	41.0	48.2	41.9	40.0	29.1	27.6	F		

**ESTONIA: 1995, 2000****Male smoking-attributed deaths (Sm.) and total deaths (Total)**

	ALL CAUSES	ALL CANCER	Lung cancer	Upper aero-digestive ca. (see below)	Other cancer	COPD	Other respiratory	Vascular disease	Liver cirrhosis	Other medical	Non-medical
<b>1995</b>											
0-34 Sm.	—	—	—	—	—	—	—	—	—	—	—
0-34 Total	918	37	0	1	36	0	16	50	5	203	607
35-69 Sm.	2188	675	430	97	148	95	89	1076	—	253	—
35-69 Total	6383	1208	449	129	630	112	204	2654	96	582	1527
(34%)	(56%)	(96%)	(75%)	(23%)	(85%)	(44%)	(41%)			(43%)	
70+ Sm.	611	224	150	20	54	55	5	293	—	34	—
70+ Total	3532	591	163	34	394	75	36	2330	12	333	155
(17%)	(38%)	(92%)	(59%)	(14%)	(73%)	(14%)	(13%)			(10%)	
Any age Sm.	2799	899	580	117	202	150	94	1369	—	287	—
Any age Total	10833	1836	612	164	1060	187	256	5034	113	1118	2289
(26%)	(49%)	(95%)	(71%)	(19%)	(80%)	(37%)	(27%)			(26%)	
<b>2000</b>											
0-34 Sm.	—	—	—	—	—	—	—	—	—	—	—
0-34 Total	546	26	1	0	25	1	10	24	8	110	367
35-69 Sm.	1557	532	344	73	115	54	77	712	—	182	—
35-69 Total	4963	1025	362	105	558	63	204	1987	145	489	1050
(31%)	(52%)	(95%)	(70%)	(21%)	(86%)	(38%)	(36%)			(37%)	
70+ Sm.	763	292	188	29	75	73	8	341	—	49	—
70+ Total	3756	755	203	46	506	96	59	2285	18	351	192
(20%)	(39%)	(93%)	(63%)	(15%)	(76%)	(14%)	(15%)			(14%)	
Any age Sm.	2320	824	532	102	190	127	85	1053	—	231	—
Any age Total	9265	1806	566	151	1089	160	273	4296	171	950	1609
(25%)	(46%)	(94%)	(68%)	(17%)	(79%)	(31%)	(25%)			(24%)	

To be conservative, no deaths before age 35, and none from liver cirrhosis or non-medical causes, were attributed to smoking

**Male death rates used for calculations: ICD codes as on previous page**

	All ages	0-34	35-69	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+/NK	
<b>POPULATION (1000s; UN, 2004 revision)</b>														
1995	670.4	349.2	286.9	51.8	49.2	43.5	37.9	40.8	35.3	28.4	15.8	8.5	10.0	
2000	630.3	318.4	271.6	46.6	47.3	44.4	39.1	32.4	34.6	27.2	21.3	10.7	8.3	
<b>NUMBER OF DEATHS (Source: WHO)</b>														
<b>All causes</b>														
1995	10833	918	6383	419	557	655	815	1194	1318	1425	1040	797	1695	
2000	9265	546	4963	224	430	573	656	736	1141	1203	1348	881	1527	
<b>Lung cancer</b>														
1995	612	—	449	1	10	21	49	90	134	144	108	31	24	
2000	566	1	362	1	7	19	36	54	106	139	128	53	22	
<b>ANNUAL DEATH RATE / 100,000</b>														
(*The rates for the age groups 0-34 and 35-69 are the means of seven five-yearly rates, but the all-ages rates are standardised to the conventional "European" age distribution)														
1995	1816.7*	273.7*	2467.8*	808.9	1132.1	1505.7	2150.4	2926.5	3733.7	5017.6	6582.3	9376.5	16950.0	
2000	1596.3*	179.7*	2050.0*	480.7	909.1	1290.5	1677.7	2271.6	3297.7	4422.8	6328.6	8233.6	18397.6	
<b>All cancer</b>														
1995	305.1*	10.7*	493.7*	44.4	77.2	179.3	358.8	605.4	926.3	1264.1	1778.5	1670.6	1680.0	
2000	298.4*	8.5*	451.5*	34.3	59.2	139.6	266.0	527.8	861.3	1272.1	1732.4	1962.6	2120.5	
<b>Lung cancer</b>														
1995	99.1*	—	186.7*	1.9	20.3	48.3	129.3	220.6	379.6	507.0	683.5	364.7	240.0	
2000	89.8*	0.3*	162.3*	2.1	14.8	42.8	92.1	166.7	306.4	511.0	600.9	495.3	265.1	
<b>Upper aerodigestive cancer (mouth, oesophagus, pharynx and larynx)</b>														
1995	26.7*	0.3*	49.8*	5.8	10.2	50.6	63.3	66.2	68.0	84.5	126.6	35.3	110.0	
2000	25.0*	—	44.0*	6.4	4.2	11.3	46.0	86.4	98.3	55.1	117.4	102.8	120.5	
<b>Other cancer</b>														
1995	179.3*	10.4*	257.1*	36.7	46.7	80.5	166.2	318.6	478.8	672.5	968.4	1270.6	1330.0	
2000	183.6*	8.2*	245.2*	25.8	40.2	85.6	127.9	274.7	456.6	705.9	1014.1	1364.5	1734.9	
<b>Chronic obstructive pulmonary disease (COPD)</b>														
1995	31.7*	—	47.3*	1.9	2.0	11.5	15.8	58.8	96.3	144.4	221.5	258.8	180.0	
2000	26.9*	0.3*	29.0*	—	2.1	—	15.3	21.6	60.7	102.9	211.3	261.7	277.1	
<b>Other respiratory disease</b>														
1995	41.0*	4.9*	75.6*	23.2	52.8	62.1	87.1	107.8	90.7	105.6	50.6	105.9	190.0	
2000	46.0*	3.4*	78.4*	25.8	63.4	85.6	94.6	77.2	95.4	106.6	84.5	121.5	337.3	
<b>Vascular disease</b>														
1995	880.7*	14.8*	1077.1*	115.8	298.8	446.0	841.7	1201.0	1844.2	2792.3	3936.7	6188.2	11820.0	
2000	760.0*	7.5*	854.6*	81.5	217.8	409.9	570.3	975.3	1502.9	2224.3	3615.0	5074.8	11710.8	
<b>Liver cirrhosis</b>														
1995	17.8*	1.5*	34.2*	9.7	28.5	46.0	29.0	58.8	42.5	24.6	25.3	47.1	40.0	
2000	27.7*	2.6*	55.2*	21.5	42.3	45.0	92.1	55.6	75.1	55.1	46.9	46.7	36.1	
<b>Other medical causes</b>														
1995	190.9*	65.0*	215.1*	98.5	119.9	206.9	208.4	291.7	277.6	302.8	291.1	776.5	2210.0	
2000	172.1*	42.7*	193.6*	81.5	122.6	180.2	191.8	163.6	237.0	378.7	446.0	504.7	2433.7	
<b>All non-medical causes</b>														
1995	349.5*	176.7*	524.9*	515.4	552.8	554.0	609.5	602.9	456.1	383.8	278.5	329.4	830.0	
2000	265.2*	114.7*	387.8*	236.1	401.7	430.2	447.6	450.6	465.3	283.1	192.5	261.7	1481.9	

Rates and calculations for some earlier years are in Peto, Lopez et al, 1994

## 1995, 2000: ESTONIA

## Female smoking-attributed deaths (Sm.) and total deaths (Total)

	ALL CAUSES	ALL CANCER	Lung cancer	Upper aero-digestive ca. (see below)	Other cancer	COPD	Other respiratory	Vascular disease	Liver cirrhosis	Other medical	Non-medical
<b>1995</b>											
0-34 Sm.	—	—	—	—	—	—	—	—	—	—	—
Total	291	30	0	0	30	2	18	11	2	105	123
35-69 Sm.	157	40	30	5	5	11	1	90	—	15	—
Total	2854	751	62	22	667	32	50	1264	76	315	366
(%)	(6%)	(5%)	(48%)	(23%)	(1%)	(34%)	(2%)	(7%)		(5%)	
70+ Sm.	103	19	14	2	3	14	0	61	—	9	—
Total	6850	663	39	18	606	58	28	5147	17	807	130
(%)	(2%)	(3%)	(36%)	(11%)	(0%)	(24%)	(0%)	(1%)		(1%)	
Any age Sm.	260	59	44	7	8	25	1	151	—	24	—
Total	9995	1444	101	40	1303	92	96	6422	95	1227	619
(%)	(3%)	(4%)	(44%)	(18%)	(1%)	(27%)	(1%)	(2%)		(2%)	
<b>2000</b>											
0-34 Sm.	—	—	—	—	—	—	—	—	—	—	—
Total	202	22	0	0	22	1	9	10	1	67	92
35-69 Sm.	77	21	17	1	3	6	1	39	—	10	—
Total	2315	737	45	11	681	18	43	938	72	242	265
(%)	(3%)	(3%)	(38%)	(9%)	(0%)	(33%)	(2%)	(4%)		(4%)	
70+ Sm.	354	67	50	5	12	28	3	219	—	37	—
Total	6621	800	76	14	710	50	55	4738	22	830	126
(%)	(5%)	(8%)	(66%)	(36%)	(2%)	(56%)	(5%)	(5%)		(4%)	
Any age Sm.	431	88	67	6	15	34	4	258	—	47	—
Total	9138	1559	121	25	1413	69	107	5686	95	1139	483
(%)	(5%)	(6%)	(55%)	(24%)	(1%)	(49%)	(4%)	(5%)		(4%)	

To be conservative, no deaths before age 35, and none from liver cirrhosis or non-medical causes, were attributed to smoking

## Female death rates used for calculations

	All ages	0-34	35-69	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+/NK	
<b>POPULATION (1000s; UN, 2004 revision)</b>														
1995	776.4	340.8	346.8	54.8	53.5	49.3	44.1	51.0	46.9	47.2	36.6	20.2	32.0	
2000	736.7	309.7	330.3	49.6	51.9	50.8	46.9	41.0	48.2	41.9	40.0	29.1	27.6	
<b>NUMBER OF DEATHS (Source: WHO)</b>														
<b>All causes</b>														
1995	9995	291	2854	114	175	216	271	481	618	979	1234	1130	4486	
2000	9138	202	2315	82	125	218	263	370	507	750	1282	1539	3800	
<b>Lung cancer</b>														
1995	101	—	62	1	—	4	4	5	20	28	18	10	11	
2000	121	—	45	1	3	1	6	9	8	17	31	32	13	
<b>ANNUAL DEATH RATE / 100,000</b>														
(*The rates for the age groups 0-34 and 35-69 are the means of seven five-yearly rates, but the all-ages rates are standardised to the conventional "European" age distribution)														
1995	858.2*	92.5*	846.1*	208.0	327.1	438.1	614.5	943.1	1317.7	2074.2	3371.6	5594.1	14018.8	
2000	790.8*	72.5*	734.3*	165.3	240.8	429.1	560.8	902.4	1051.9	1790.0	3205.0	5288.7	13768.1	
<b>All cancer</b>														
1995	139.7*	8.6*	222.8*	42.0	84.1	107.5	154.2	270.6	405.1	495.8	625.7	821.8	837.5	
2000	151.1*	7.2*	232.9*	42.3	82.9	131.9	230.3	319.5	348.5	474.9	705.0	838.5	992.8	
<b>Lung cancer</b>														
1995	9.6*	—	18.7*	1.8	—	8.1	9.1	9.8	42.6	59.3	49.2	49.5	34.4	
2000	10.8*	—	14.5*	2.0	5.8	2.0	12.8	22.0	16.6	40.6	77.5	110.0	47.1	
<b>Upper aerodigestive cancer (mouth, oesophagus, pharynx and larynx)</b>														
1995	3.7*	—	6.7*	—	—	—	6.8	5.9	17.1	16.9	8.2	14.9	37.5	
2000	2.3*	—	3.5*	—	—	2.0	4.3	4.9	6.2	7.2	15.0	6.9	21.7	
<b>Other cancer</b>														
1995	126.5*	8.6*	197.4*	40.1	84.1	99.4	138.3	254.9	345.4	419.5	568.3	757.4	765.6	
2000	137.9*	7.2*	214.9*	40.3	77.1	128.0	213.2	292.7	325.7	427.2	612.5	721.6	923.9	
<b>Chronic obstructive pulmonary disease (COPD)</b>														
1995	8.4*	0.6*	9.6*	—	1.9	6.1	4.5	7.8	25.6	21.2	57.4	79.2	65.6	
2000	5.8*	0.3*	5.8*	4.0	1.9	3.9	—	4.9	2.1	23.9	20.0	61.9	87.0	
<b>Other respiratory disease</b>														
1995	11.0*	5.7*	14.6*	7.3	9.3	20.3	13.6	13.7	6.4	31.8	19.1	24.8	50.0	
2000	11.3*	3.7*	13.5*	4.0	7.7	7.9	12.8	19.5	16.6	26.3	27.5	51.5	105.1	
<b>Vascular disease</b>														
1995	502.1*	3.3*	378.9*	16.4	52.3	115.6	231.3	370.6	635.4	1230.9	2292.3	4084.2	10884.4	
2000	448.8*	3.2*	302.3*	26.2	55.9	104.3	159.9	309.8	462.7	997.6	2085.0	3817.9	10119.6	
<b>Liver cirrhosis</b>														
1995	11.0*	0.6*	22.4*	5.5	18.7	12.2	29.5	33.3	32.0	25.4	21.9	34.7	6.3	
2000	11.1*	0.3*	22.1*	6.0	13.5	35.4	14.9	39.0	29.0	16.7	30.0	17.2	18.1	
<b>Other medical causes</b>														
1995	111.3*	35.9*	92.8*	38.3	43.0	60.9	77.1	113.7	138.6	178.0	243.2	460.4	1953.1	
2000	103.8*	27.5*	76.6*	26.2	25.0	55.1	46.9	100.0	101.7	181.4	247.5	415.8	2210.1	
<b>All non-medical causes</b>														
1995	74.7*	37.8*	105.0*	98.5	117.8	115.6	104.3	133.3	74.6	91.1	112.0	89.1	221.9	
2000	59.0*	30.2*	81.0*	56.5	53.9	90.6	95.9	109.8	91.3	69.2	90.0	85.9	235.5	

Rates and calculations for some earlier years are in Peto, Lopez et al, 1994

**ESTONIA: 2000****Relative importance of deaths in MIDDLE age (35–69) in the year 2000**

Age range (years)	Deaths attributed to SMOKING /total deaths (thousands)		Mean years lost PER DEATH FROM SMOKING
	Male	Female	
0–34	– / 0.5	– / 0.2	–
35–69	1.6 / 5.0	0.1 / 2.3	20 years
70+	0.8 / 3.8	0.4 / 6.6	9 years
All ages	2.3 / 9.3	0.4 / 9.1	15 years

**Deaths, by cause, attributed to SMOKING / total deaths in the year 2000**

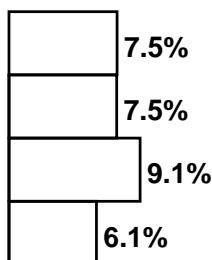
Cause	Male (by age)				Female (by age)			
	0–34	35–69	70+	All	0–34	35–69	70+	All
Lung Cancer	–/ 1	344/362	188/203	532/566	–/ 0	17/45	50/76	67/121
All Cancer	–/26	532/1025 (52%)	292/755 (39%)	824/1806	–/22	21/737 ( 3%)	67/800 ( 8%)	88/1559
Vascular	–/24	712/1987	341/2285	1053/4296	–/10	39/938	219/4738	258/5686
Respiratory	–/11	131/267	81/155	212/433	–/10	7/61	31/105	38/176
All Other	–/485	182/1684	49/561	231/2730	–/160	10/579	37/978	47/1717
All Causes	–/546	1557/4963 (31%)	763/3756 (20%)	2320/9265	–/202	77/2315 ( 3%)	354/6621 ( 5%)	431/9138

**Cancer deaths, and all deaths,  
attributed to SMOKING / total deaths (thousands) in the year 2000**

Cause	Male	Female	Male + Female
All Cancer	0.8 / 1.8 (46%)	0.1 / 1.6 ( 6%)	0.9 / 3.4 (27%)
All Causes	2.3 / 9.3 (25%)	0.4 / 9.1 ( 5%)	2.8 / 18 (15%)

1985-2000: ESTONIA
--------------------

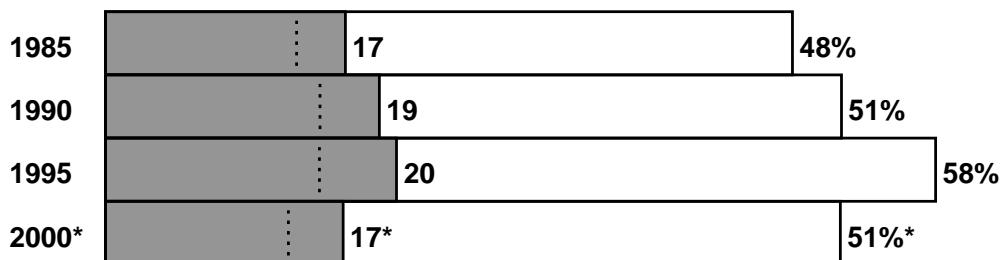
**Population  
risk of  
dying at  
ages 0–34**



**Population risk of a 35-year-old dying at ages 35–69  
from smoking (shaded) or from any cause (shaded and white)**

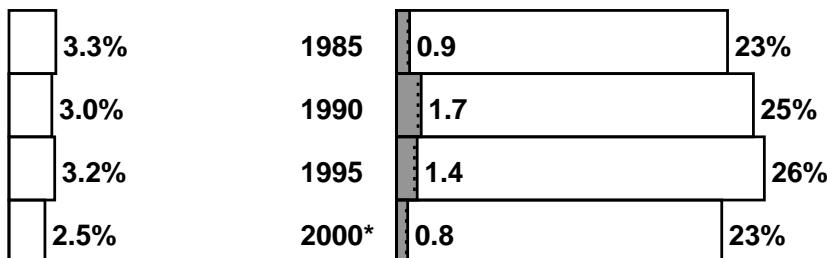
\*eg, at year 2000 male death rates, out of 100 men aged 35, 51 would die before age 70 (with 17 of these deaths attributed to smoking)

**MALE**



Note: Most of those killed by smoking would otherwise have survived beyond age 70, but a minority (shaded area to right of dotted line) would have died by 70 anyway

**FEMALE**



**ESTONIA: 1980-2000****Numbers of deaths attributed to smoking / total deaths**

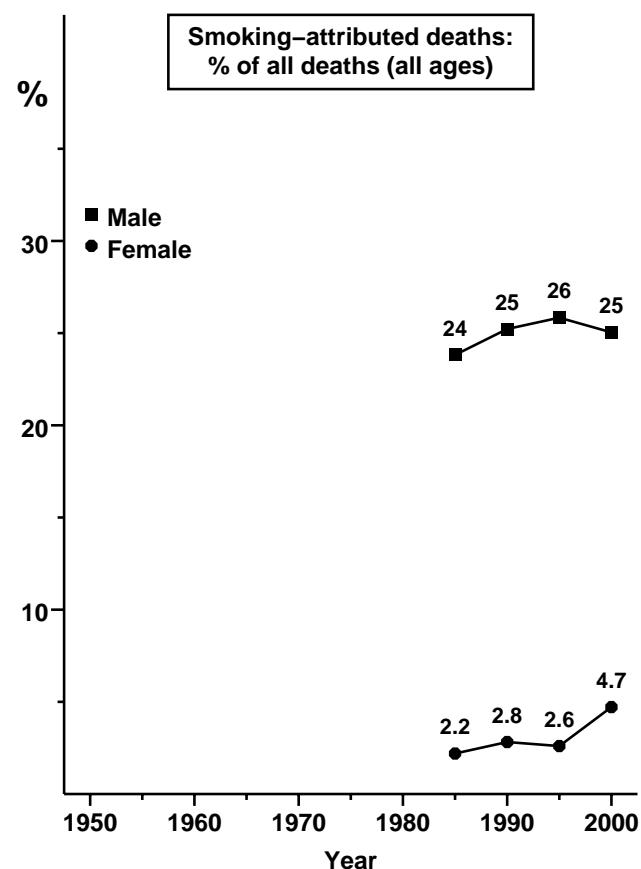
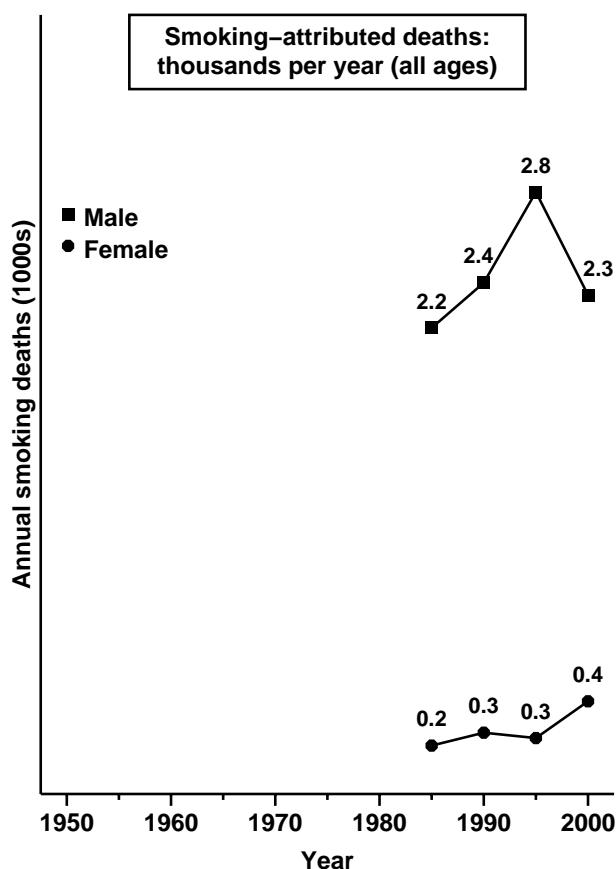
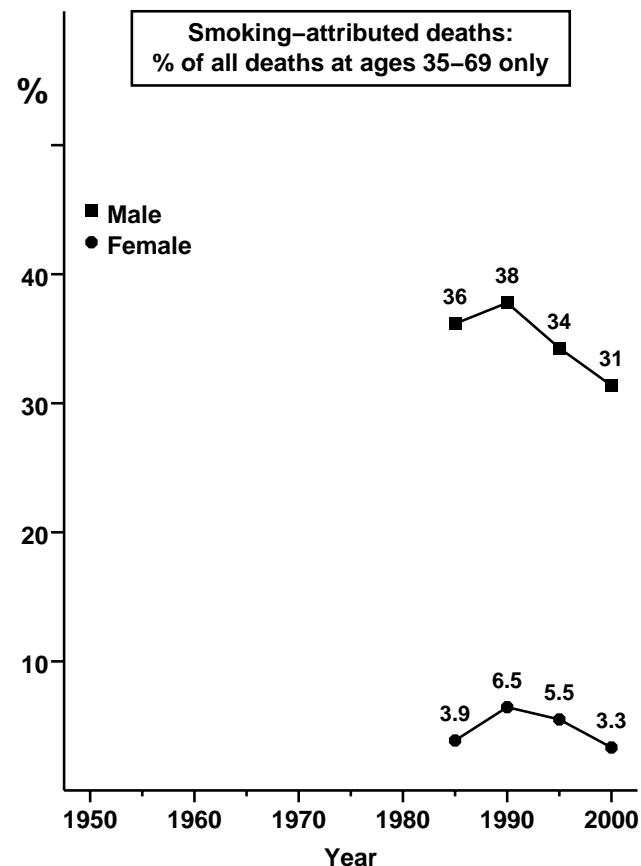
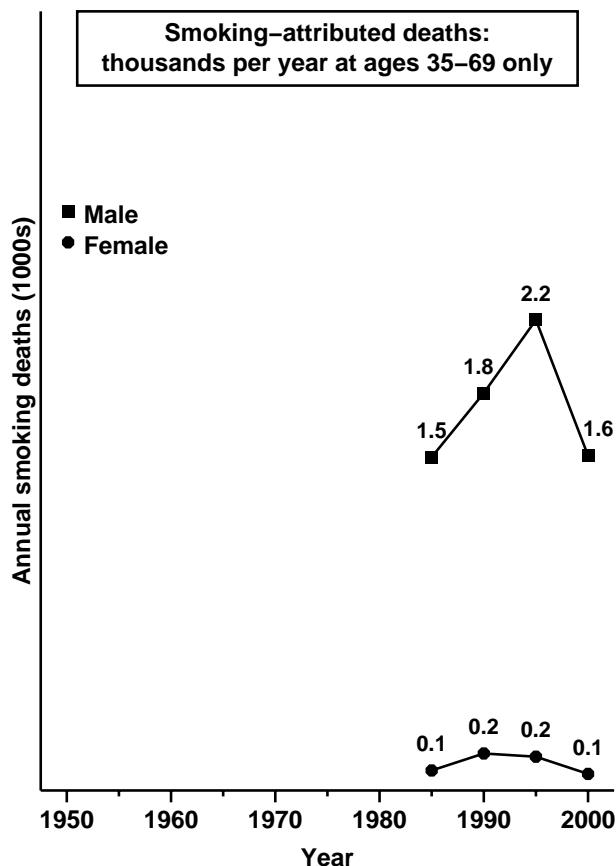
Year	Male (by age)				Female (by age)			
	0-34	35-69	70+	All	0-34	35-69	70+	All
1950	...	...	...	...	...	...	...	...
1955	...	...	...	...	...	...	...	...
1960	...	...	...	...	...	...	...	...
1965	...	...	...	...	...	...	...	...
1970	...	...	...	...	...	...	...	...
1975	...	...	...	...	...	...	...	...
1980	...	...	...	...	...	...	...	...
1985	-/901	1550/4286 <b>(36%)</b>	617/3911 <b>(16%)</b>	2167/9098	-/373	93/2403 <b>( 4%)</b>	132/7469 <b>( 2%)</b>	225/10245
1990	-/930	1848/4891 <b>(38%)</b>	529/3603 <b>(15%)</b>	2377/9424	-/355	172/2666 <b>( 6%)</b>	113/7085 <b>( 2%)</b>	285/10106
1995	-/918	2188/6383 <b>(34%)</b>	611/3532 <b>(17%)</b>	2799/10833	-/291	157/2854 <b>( 6%)</b>	103/6850 <b>( 2%)</b>	260/9995
2000	-/546	1557/4963 <b>(31%)</b>	763/3756 <b>(20%)</b>	2320/9265	-/202	77/2315 <b>( 3%)</b>	354/6621 <b>( 5%)</b>	431/9138

**20-year total\* (thousands), mid-1980 to mid-2000: 55 / 402****1980-2000 by age & sex:**

-/18	37/107 <b>(35%)</b>	12/74 <b>(16%)</b>	50/199	-/6.6	2.5/53 <b>( 5%)</b>	2.3/143 <b>( 2%)</b>	4.8/202
------	------------------------	-----------------------	--------	-------	------------------------	-------------------------	---------

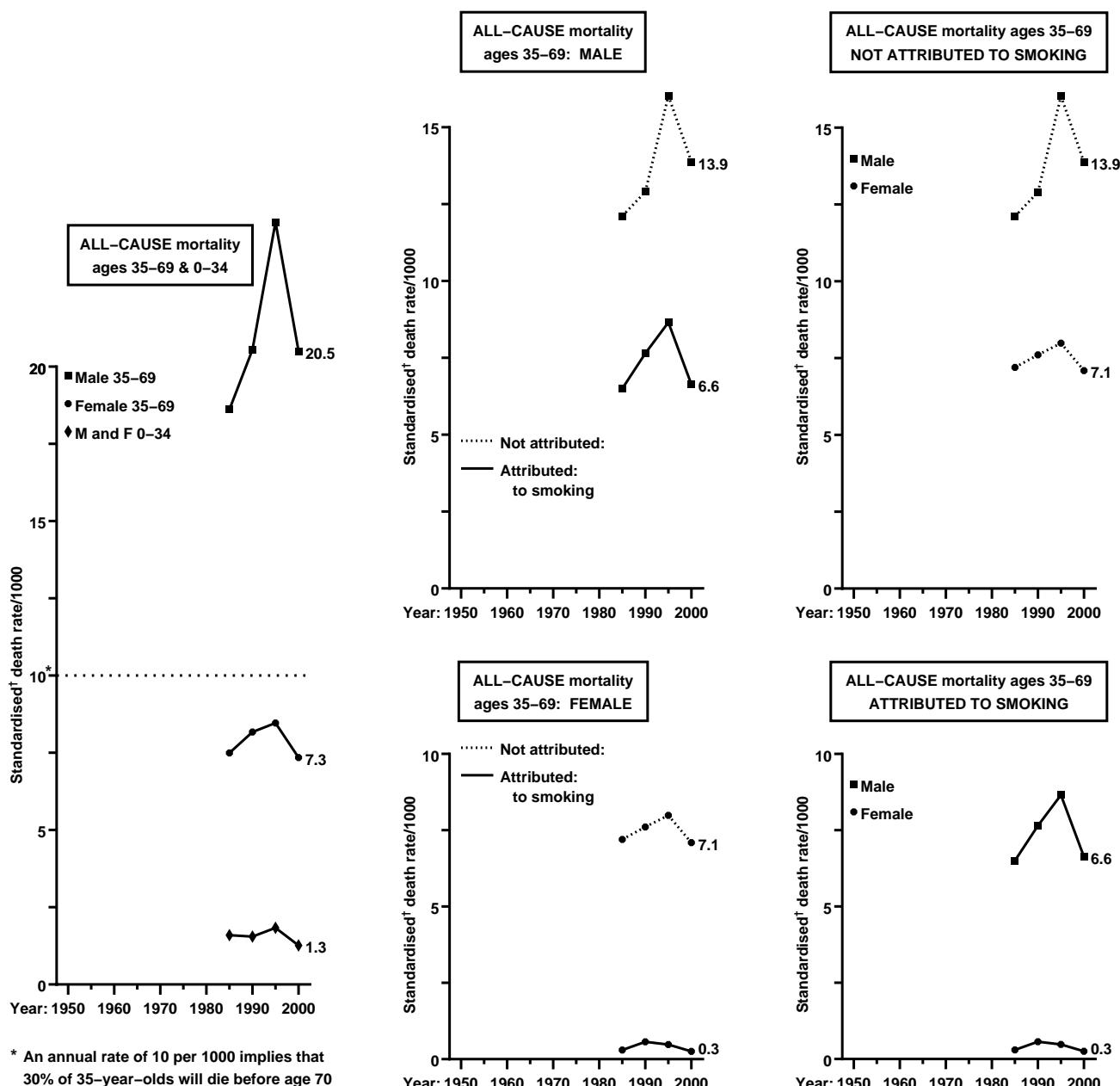
\*Estimated as 10 times the sum of the annual numbers for 1985 &amp; 1995

## 1985-2000: ESTONIA



## ESTONIA: 1985-2000

## ALL-CAUSE mortality rates attributed and not attributed to smoking



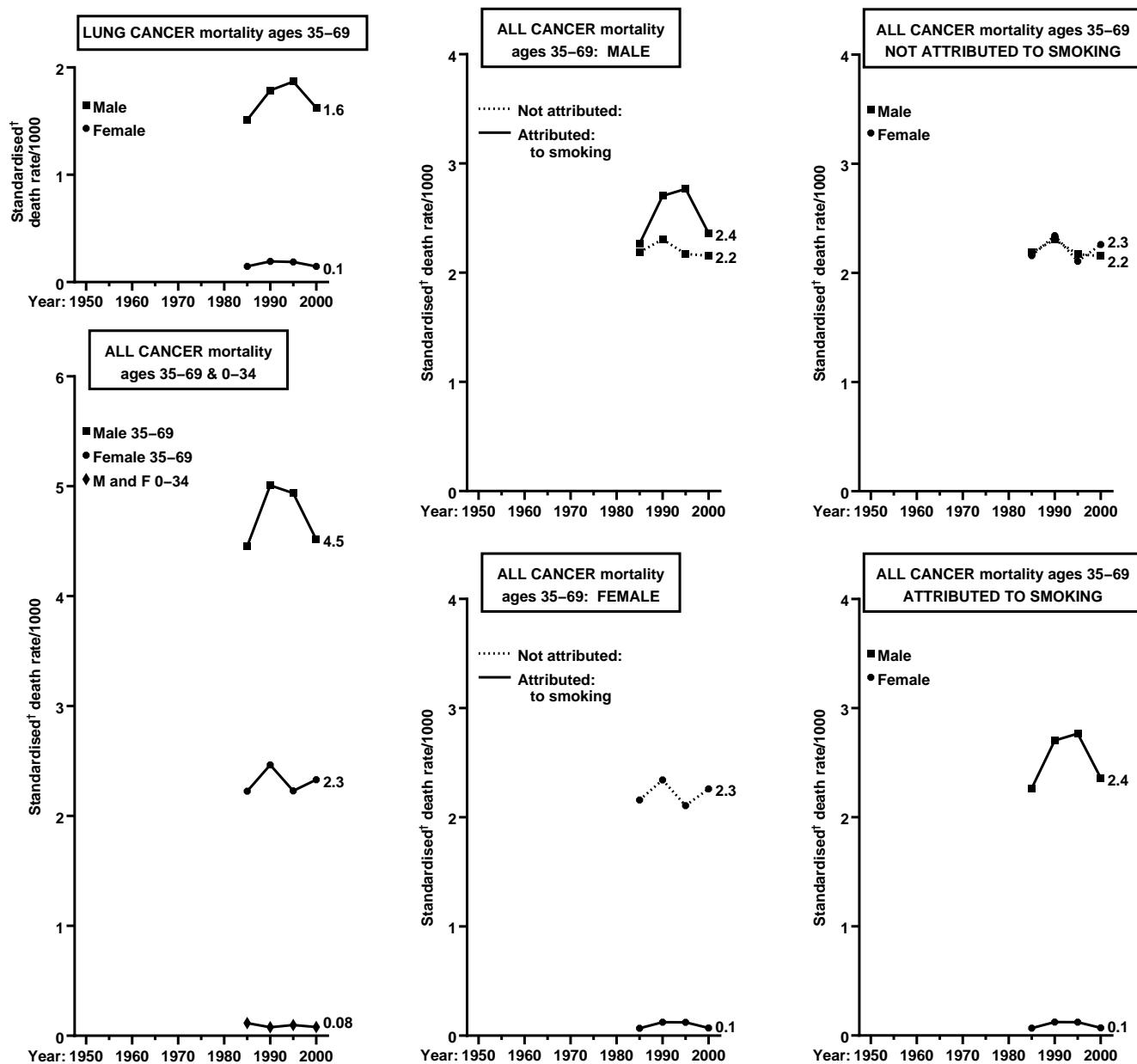
† Mean of 7 age-specific rates, ages 35-69 (or ages 0-34)

Year	MALE all-cause mortality (annual rate/1000, by age)						FEMALE all-cause mortality (annual rate/1000, by age)							
	Attributed to smoking?	0-34		35-69		70-79		Yes	0-34		35-69		70-79	
		Yes	No	Yes	No	Yes	No		Yes	No	Yes	No	Yes	No
1950	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1960	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1965	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1970	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1975	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1980	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1985	-	2.24	6.50	12.1	16.9	75.9	-	0.95	0.30	7.20	1.43	53.7		
1990	-	2.23	7.65	12.9	14.8	63.9	-	0.87	0.57	7.60	1.47	46.2		
1995	-	2.74	8.65	16.0	17.1	62.7	-	0.93	0.48	7.98	1.02	43.8		
2000	-	1.80	6.63	13.9	17.2	55.6	-	0.72	0.25	7.09	2.76	39.7		

0-34 and 35-69 = means of 7 age-specific rates; 70-79 = mean of 2 rates (70-74 & 75-79)

## 1985-2000: ESTONIA

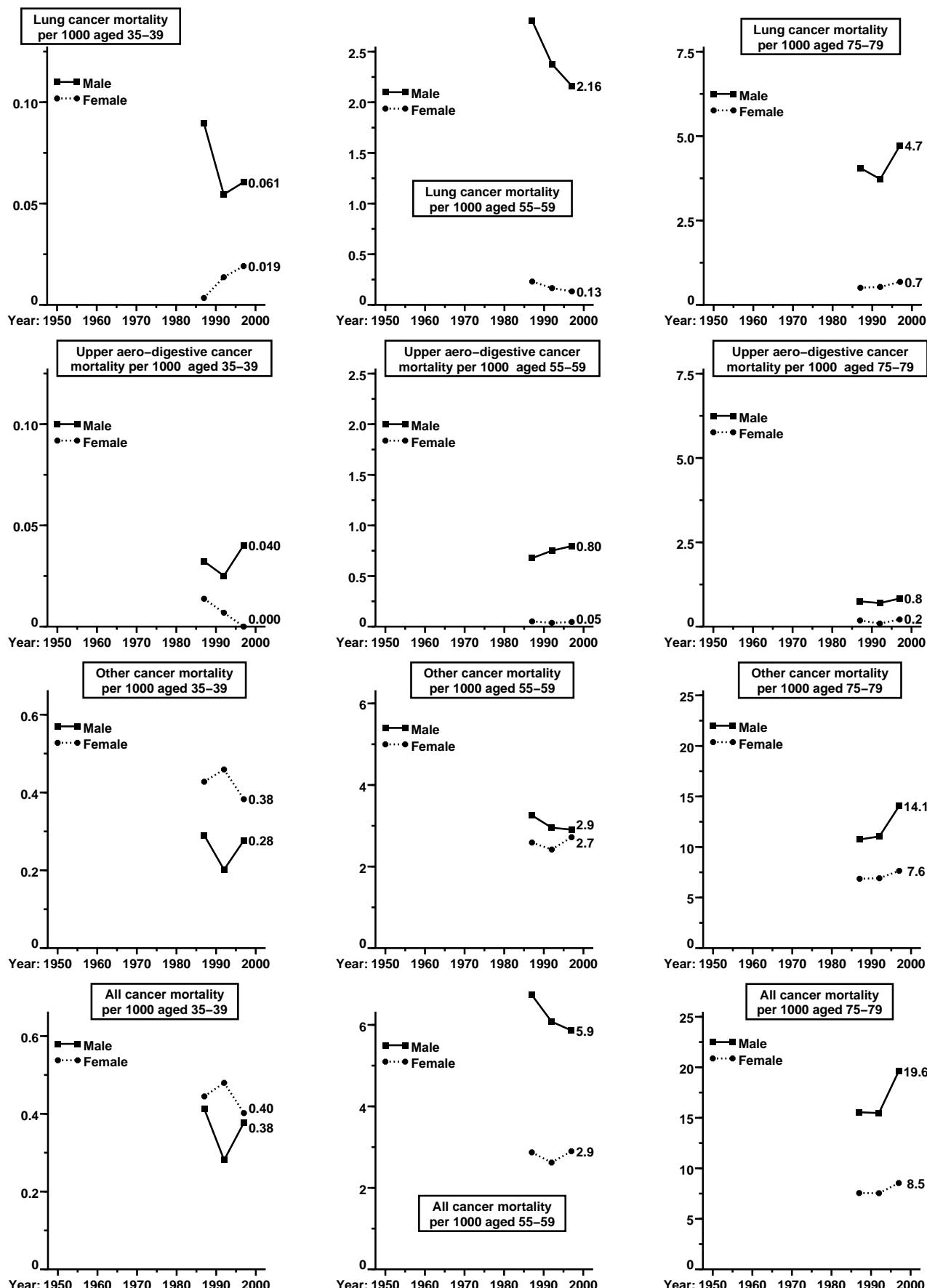
## ALL CANCER mortality rates attributed and not attributed to smoking



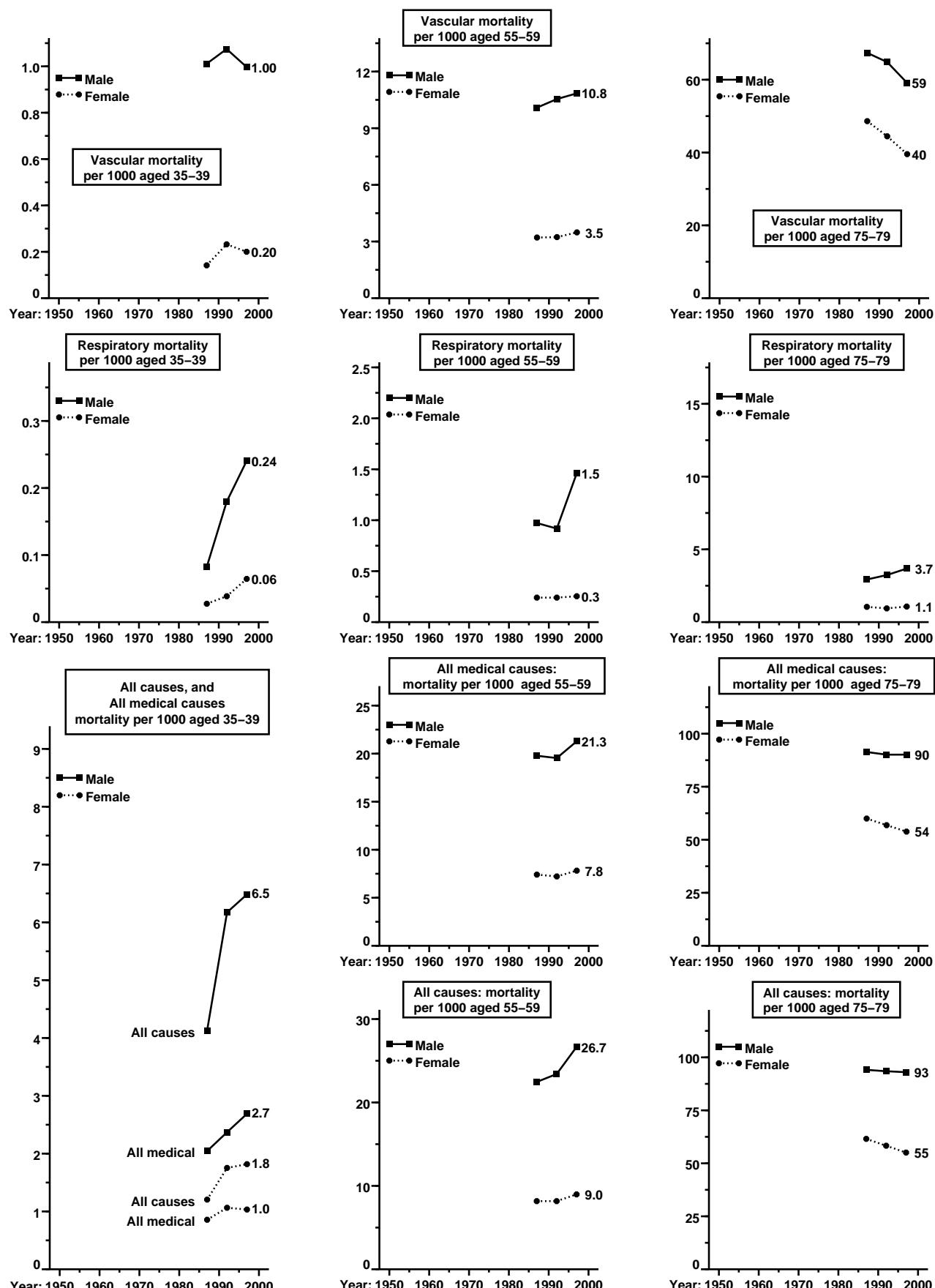
† Mean of 7 age-specific rates, ages 35–69 (or ages 0–34)

Year	MALE cancer mortality (annual rate/1000, by age)						FEMALE cancer mortality (annual rate/1000, by age)								
	Attributed to smoking?	0–34		35–69		70–79		Yes	No	0–34		35–69		70–79	
		Yes	No	Yes	No	Yes	No			Yes	No	Yes	No	Yes	No
1950		...	...	...	...	...	...	...	...	...	...	...	...	...	
1955		...	...	...	...	...	...	...	...	...	...	...	...	...	
1960		...	...	...	...	...	...	...	...	...	...	...	...	...	
1965		...	...	...	...	...	...	...	...	...	...	...	...	...	
1970		...	...	...	...	...	...	...	...	...	...	...	...	...	
1975		...	...	...	...	...	...	...	...	...	...	...	...	...	
1980		...	...	...	...	...	...	...	...	...	...	...	...	...	
1985	-	0.11	2.27	2.19	5.80	10.3	...	-	0.12	0.07	2.16	0.31	7.09	...	
1990	-	0.08	2.70	2.30	5.61	9.66	...	-	0.08	0.12	2.34	0.35	6.69	...	
1995	-	0.11	2.77	2.17	6.92	10.3	...	-	0.09	0.12	2.11	0.24	7.00	...	
2000	-	0.08	2.36	2.15	7.52	11.0	...	-	0.07	0.07	2.26	0.79	6.93	...	

0–34 and 35–69 = means of 7 age-specific rates; 70–79 = mean of 2 rates (70–74 &amp; 75–79)

**ESTONIA: 1985-2000****Mortality\* trends at selected ages: 35-39, 55-59 & 75-79**

\* Annual mortality per 1000: averages of years available in 1985-89,...,1995-99; year 2000 on pages 164-165

**1985-2000: ESTONIA****Mortality\* trends at selected ages: 35-39, 55-59 & 75-79**

\* Annual mortality per 1000: averages of years available in 1985-89,...,1995-99; year 2000 on pages 164-165