

**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

# **UKRAINE**

**Raw data** (pages 482–83, 484–85)

**Analyses** (pages 486–87, 488–89, 490–91)

**Appendix** (pages 492–93)

## UKRAINE: 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
ALL CAUSES	M	382260	27616	210854	1873.9	251.0	2445.8	335.5	44.5	46.4	131.2	278.1	381.8	539.4
	F	375822	9678	100292	970.1	95.4	917.3	245.2	27.1	27.7	52.0	73.5	95.6	146.7
Tuberculosis	M	9746	1775	7513	42.9	15.4	73.1	0.3	0.1	-	2.0	15.8	33.9	55.7
	F	1230	284	766	4.4	2.4	6.4	0.2	-	0.1	0.9	3.1	5.7	6.9
(HIV*)	M	6171	2040	4109	26.5	17.9	37.1	4.4	-	-	4.5	16.5	34.8	65.2
	F	819	413	404	3.4	3.7	3.2	4.5	-	-	1.0	4.7	8.1	7.9
Other infective and parasitic	M	1093	436	559	5.4	4.6	6.1	17.1	0.8	0.5	1.6	2.8	4.1	5.0
	F	656	300	258	2.8	3.2	2.3	12.0	0.8	0.5	1.0	2.2	2.6	3.4
ALL CANCER	M	55151	1280	36893	253.5	11.1	447.5	6.8	5.6	5.3	8.7	12.1	15.6	23.9
	F	41972	1166	24025	123.2	10.3	215.9	7.7	3.9	4.8	5.9	8.6	13.9	27.6
Mouth and pharynx cancer	M	3170	34	2604	14.7	0.3	30.3	0.1	0.1	0.1	0.3	0.4	0.2	0.8
	F	446	12	217	1.3	0.1	2.0	0.1	-	-	0.1	0.1	0.3	0.1
Oesophagus cancer	M	1594	4	1217	7.4	0.0	14.6	-	-	-	-	-	0.1	0.2
	F	260	-	101	0.7	-	0.9	-	-	-	-	-	-	-
Stomach cancer	M	7539	68	4984	34.6	0.6	60.4	-	-	-	0.2	0.6	1.2	2.2
	F	4895	72	2530	13.7	0.6	23.1	-	-	-	0.1	0.4	1.1	2.7
Colorectal cancer	M	5771	48	3256	27.0	0.4	40.8	-	-	0.1	0.2	0.3	0.7	1.6
	F	5792	31	2818	15.8	0.3	25.8	-	-	0.1	0.1	0.2	0.5	1.1
Liver cancer	M	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	...	...	...	...
Pancreas cancer	M	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	...	...	...	...
Larynx cancer	M	2068	4	1644	9.5	0.0	19.6	-	-	-	0.1	-	-	0.2
	F	63	3	32	0.2	0.0	0.3	-	-	0.1	-	-	-	0.1
Lung cancer	M	15887	67	11213	71.9	0.6	138.1	-	-	-	0.1	0.4	1.1	2.6
	F	2913	38	1483	8.1	0.3	13.5	0.1	-	-	0.1	0.2	0.5	1.4
Malignant melanoma	M	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	...	...	...	...
Female breast cancer	F	7998	86	5493	24.9	0.8	48.4	-	-	0.1	0.1	0.1	0.8	4.2
Cervix cancer	F	2443	115	1537	7.7	1.0	13.3	-	-	-	0.1	0.6	2.1	4.1
Other uterine cancer	F	2236	21	1297	6.4	0.2	11.8	-	-	-	0.1	0.2	0.3	0.7
Ovarian cancer	F	...	...	...	...	...	...	...	...	...	...	...	...	...
Prostate cancer	M	2537	5	1092	12.3	0.0	14.4	-	-	-	0.1	-	0.1	0.2
Bladder cancer	M	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	...	...	...	...
Other and ill-defined cancer sites	M	13735	636	9048	63.3	5.6	108.0	3.5	3.3	2.6	4.4	5.9	7.3	11.9
	F	12595	464	7200	37.2	4.1	64.8	3.7	2.7	2.6	2.7	3.9	4.9	8.5
Hodgkin's disease	M	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	...	...	...	...
Myeloma and all lymphomas	M	1279	201	859	5.7	1.7	9.7	0.6	0.8	0.7	1.8	2.7	2.9	2.4
	F	944	144	536	3.0	1.2	4.8	0.8	0.2	0.5	0.8	1.9	2.1	2.4
Leukaemia	M	1571	213	976	7.2	1.9	11.6	2.7	1.5	1.8	1.7	1.9	2.0	1.7
	F	1387	180	781	4.4	1.7	7.1	3.0	1.0	1.6	1.7	1.0	1.2	2.2
Diabetes	M	1408	156	929	6.3	1.3	10.7	0.1	0.1	0.1	0.3	1.7	3.6	3.4
	F	2066	160	1193	6.1	1.3	10.8	-	0.1	0.2	1.0	1.6	3.2	3.3
ALL VASCULAR DISEASE	M	196536	2181	92452	1001.5	19.4	1137.7	8.6	0.7	1.2	4.8	15.2	32.2	73.3
	F	267340	677	52779	643.2	6.0	496.8	5.4	0.5	1.4	3.1	5.7	7.7	18.6
Rheumatic heart disease and fever	M	1331	73	1151	6.0	0.6	12.6	-	-	0.1	0.3	0.4	1.2	2.5
	F	1758	42	1399	5.8	0.4	12.4	-	-	0.2	0.4	0.5	0.2	1.1
Hypertensive disease	M	570	13	440	2.7	0.1	5.0	-	-	-	-	0.1	0.3	0.4
	F	524	10	277	1.5	0.1	2.5	-	-	-	0.1	0.1	0.2	0.3
Ischaemic heart disease	M	130474	864	60102	663.6	7.6	748.9	-	-	-	1.4	4.8	12.0	35.1
	F	168724	158	31257	400.5	1.4	296.8	-	-	-	0.4	1.4	1.7	6.0
Pulmonary embolism and other venous	M	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebrovascular disease	M	44612	320	20810	227.2	2.8	259.7	1.0	0.1	0.2	1.3	2.5	4.7	9.8
	F	71414	156	16103	174.2	1.3	151.1	0.2	0.4	0.4	0.6	1.4	2.3	4.1
Other vascular disease, incl. venous	M	19549	911	9949	102.0	8.2	111.4	7.5	0.6	0.9	1.8	7.3	14.0	25.5
	F	24920	311	3743	61.2	2.9	33.9	5.2	0.1	0.8	1.6	2.4	3.4	7.1
Chronic obstructive pulmonary disease	M	17840	104	8295	89.3	0.9	107.0	-	-	0.1	0.3	0.8	1.6	3.6
	F	9197	48	1947	22.3	0.4	18.3	-	0.1	0.1	0.3	0.4	0.7	1.2
Other respiratory disease	M	8273	1041	5881	38.8	10.2	62.9	25.1	0.7	0.8	2.9	6.3	13.1	22.3
	F	2589	465	1212	9.0	4.9	10.5	18.1	0.8	1.0	1.6	2.9	4.4	5.7
Peptic ulcer	M	1544	80	1126	7.0	0.7	12.4	0.1	-	-	0.2	0.5	1.7	2.5
	F	533	9	285	1.5	0.1	2.6	-	-	-	-	-	0.2	0.3
Liver cirrhosis & some other digestive	M	8993	555	7489	40.5	4.9	80.3	0.6	-	0.4	0.9	3.5	8.2	20.6
	F	4243	192	3200	14.2	1.7	27.9	0.5	0.1	0.3	0.4	1.3	3.1	6.0
Renal disease	M	1831	180	1252	8.4	1.6	13.7	0.5	0.1	0.3	0.8	1.4	3.6	4.1
	F	1562	127	1025	5.0	1.1	9.0	0.7	0.3	0.4	1.1	1.5	2.0	1.7
Pregnancy, birth	F	95	71	24	0.4	0.6	0.2	-	-	-	0.6	0.8	1.4	1.2
Congenital and perinatal causes	M	2493	2308	179	17.0	29.1	1.7	189.4	4.1	2.7	2.7	2.3	1.3	1.4
	F	1704	1525	166	12.0	20.4	1.4	133.2	2.3	2.1	1.3	1.5	1.3	0.7
Ill-defined causes	M	7562	467	2027	49.2	4.7	21.6	13.4	0.5	0.3	1.2	3.2	5.6	8.6
	F	19276	170	519	45.8	2.0	4.6	9.6	0.1	0.1	0.7	0.9	0.6	1.7
Other medical causes	M	11711	2376	7437	54.0	21.4	78.0	24.9	7.7	7.1	11.1	21.6	30.5	47.1
	F	7863	1238	4103	26.0	11.6	35.8	20.2	6.0	4.9	7.3	10.6	13.4	18.8
ALL NON-MEDICAL CAUSES	M	58079	14677	38822	259.9	125.7	393.2	48.6	23.9	27.6	93.8	191.0	226.9	267.9
	F	15496	3246	8790	54.3	29.4	75.0	37.7	12.1	11.5	26.8	32.6	35.4	49.5
Road traffic accidents	M	4966	2166	2530	21.3	18.1	25.2	4.1	4.7	3.8	18.8	37.3	30.4	27.6
	F	1582	561	748	5.7	4.9	6.4	4.2	3.7	2.1	7.2	7.3	4.8	5.1
Fire	M	1353	228	973	6.2	2.1	10.2	2.3	0.8	0.7	0.4	1.6	3.5	5.2
	F	489	69	215	1.6	0.7	1.9	2.8	0.4	0.3	-	0.5	0.6	0.7
Suicide	M	11910	2932	7784	52.7	24.5	80.3	-	0.4	4.7	19.7	40.8	49.3	57.0
	F	2648	468	1452	8.7	3.9	12.5	-	0.1	1.1	5.0	5.9	6.7	8.5
Homicide	M	4545	1470	2834	19.8	12.4	27.3	2.1	0.6	1.0	9.4	21.7	24.7	27.5
	F	1913	480	1037	6.7	4.2	8.7	2.7	1.1	1.1	4.3	5.6	6.0	8.4
POPULATION:			M=male		22699	11458	9830	1087	1498	1909	1905	1772	1738	1550
(1000s; UN, 2004 revision)			F=female		26417	11239	11850	1027	1426	1838	1853	1766	1725	1604

\*The HIV numbers in italics are Global Burden of Disease estimates (<http://www.dcp2.org/pubs/GBD>) and are not counted in 'All Causes'. No HIV deaths in Ukraine in year 2000 were reported to WHO; the actual HIV deaths are distributed amongst various other categories.

## 2000: UKRAINE

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			
730.5	1080.1	1498.9	2127.6	2625.8	3911.6	5146.3	7347.4	10360.8	19017.2	M	ALL CAUSES	001-999/A00-Y89
192.5	282.7	429.9	683.1	934.4	1512.5	2385.8	3928.0	6832.3	16407.8	F		
72.0	94.7	98.0	88.8	68.2	51.7	38.3	30.1	25.5	49.9	M	Tuberculosis	010-018/A15-A19
7.1	7.0	9.1	6.3	6.1	4.4	4.8	5.1	6.2	5.0	F		
64.5	63.9	52.0	43.4	19.5	9.1	7.6	2.5	0.6	-	M	HIV*	279.5, 279.6/B20-B24)
6.1	5.5	4.6	3.8	1.7	0.5	0.4	0.1	-	-	F		
3.6	4.2	4.4	7.1	8.1	7.3	7.9	6.9	8.6	4.8	M	Other infective and parasitic	Rest of 001-139/rest of A00-B99 excl A33,A34
1.9	1.1	1.5	2.1	2.5	3.1	3.7	3.0	3.4	2.3	F		
43.7	89.6	193.7	377.3	558.1	840.6	1029.7	1249.3	1277.6	947.7	M	ALL CANCER	140-208/C00-C97
48.7	81.9	130.2	207.4	253.8	352.1	436.9	525.0	572.4	390.1	F		
2.0	7.3	21.1	38.7	45.8	51.1	45.9	40.5	34.1	33.9	M	Mouth and pharynx cancer	140-149/C00-C14
0.4	0.9	1.1	1.6	2.3	3.0	4.5	5.4	6.3	8.8	F		
0.6	2.1	7.9	14.8	21.1	26.8	29.2	29.1	22.7	23.2	M	Oesophagus cancer	150/C15
0.2	0.2	0.4	0.7	0.8	1.6	2.7	4.1	4.8	5.8	F		
5.5	12.3	27.7	50.9	72.6	113.9	139.7	183.1	196.5	125.0	M	Stomach cancer	151/C16
4.4	6.5	11.6	19.5	25.1	38.1	56.5	71.5	84.1	47.0	F		
3.8	6.6	11.5	25.5	42.8	79.7	115.7	167.8	194.0	169.7	M	Colorectal cancer	153, 154/C18-C21
3.0	6.3	10.7	20.3	29.4	46.0	65.0	86.3	104.2	74.1	F		
...	...	...	...	...	...	...	...	...	...	M	Liver cancer	Not given separately
...	...	...	...	...	...	...	...	...	...	F		
...	...	...	...	...	...	...	...	...	...	M	Pancreas cancer	Not given separately
...	...	...	...	...	...	...	...	...	...	F		
0.9	3.4	10.9	23.1	30.6	33.1	35.2	35.1	28.0	15.2	M	Larynx cancer	161/C32
0.1	0.1	0.2	0.4	0.4	0.4	0.5	0.8	1.2	0.5	F		
6.7	19.5	48.7	102.7	178.8	276.8	333.8	373.9	327.5	173.3	M	Lung cancer	162/C33, C34
1.9	3.5	7.1	12.2	15.1	22.5	32.5	45.0	48.9	28.1	F		
...	...	...	...	...	...	...	...	...	...	M	Malignant melanoma	Not given separately
...	...	...	...	...	...	...	...	...	...	F		
11.3	23.4	40.1	58.1	61.7	74.6	69.7	78.8	79.1	54.6	F	Female breast cancer	174/C50
8.2	10.6	12.1	15.7	12.5	15.8	18.1	23.5	27.7	19.7	F	Cervix cancer	180/C53
1.2	2.5	4.3	8.9	15.5	22.8	27.6	31.2	30.7	17.6	F	Other uterine cancer	179, 182/C54, C55
...	...	...	...	...	...	...	...	...	...	M	Ovarian cancer	Not given separately
0.2	0.4	1.8	5.0	10.8	31.1	51.3	86.1	126.9	117.0	M	Prostate cancer	185/C61
...	...	...	...	...	...	...	...	...	...	F		
...	...	...	...	...	...	...	...	...	...	M	Bladder cancer	Not given separately
...	...	...	...	...	...	...	...	...	...	F		
17.5	29.3	52.1	96.6	132.0	193.2	235.4	289.6	302.6	256.4	M	Other and ill-defined cancer sites	Rest of 140-199/rest of C00-C80, C97
13.5	22.7	36.6	60.2	78.2	109.1	133.4	153.2	163.0	122.5	F	Hodgkin's disease	Not given separately
...	...	...	...	...	...	...	...	...	...	M		
...	...	...	...	...	...	...	...	...	...	F		
3.5	4.8	6.9	10.5	9.9	15.1	17.3	15.9	17.2	12.0	M	Myeloma and all lymphomas	200-203 incl 201/C81-C90, C96
2.0	2.4	2.5	4.4	4.9	7.2	10.3	9.9	7.8	4.7	F	Leukaemia	204-208/C91-C95
3.0	3.9	5.1	9.5	13.7	19.8	26.1	28.1	28.3	22.0	M		
2.7	2.9	3.4	5.3	7.9	11.0	16.4	15.2	14.5	6.7	F		
3.8	5.3	6.1	8.9	12.2	17.6	20.8	23.9	24.9	16.8	M	Diabetes	250/E10-E14
2.3	3.7	5.0	8.3	12.0	19.7	24.3	28.0	21.4	9.8	F		
134.3	269.4	462.5	794.3	1122.7	2082.0	3098.8	4928.9	7540.6	14080.7	M	ALL VASCULAR DISEASE	390-459/I00-I99
31.3	60.6	121.5	252.9	448.5	903.6	1658.9	3020.1	5647.0	13275.4	F		
4.0	7.9	10.2	16.6	17.8	17.2	14.7	9.3	6.4	4.0	M	Rheumatic heart disease and fever	390-398/I00-I09
2.4	4.0	8.2	14.5	19.5	21.3	17.1	14.1	8.0	3.3	F	Hypertensive disease	401-405/I10-I15
1.7	2.1	3.0	6.2	7.1	7.2	7.8	7.1	10.0	9.6	M		
0.2	0.8	1.3	2.2	3.4	4.3	5.4	5.9	8.6	7.6	F		
67.3	150.2	262.8	468.7	706.2	1431.8	2155.2	3391.6	5315.6	9261.6	M	Ischaemic heart disease	410-414/I20-I25
11.3	22.4	46.7	110.1	242.9	561.3	1083.0	1975.5	3763.8	8301.2	F		
...	...	...	...	...	...	...	...	...	...	M	Pulmonary embolism and other venous	Not given separately
...	...	...	...	...	...	...	...	...	...	F		
21.0	47.5	91.2	186.5	269.8	473.4	728.5	1189.6	1662.5	3180.9	M	Cerebrovascular disease	430-438/I60-I69
7.1	20.1	43.0	95.0	146.5	269.7	476.1	845.7	1449.7	3313.6	F		
40.3	61.6	95.2	116.3	121.7	152.4	192.6	331.3	546.1	1624.6	M	Other vascular disease, incl. venous	Rest of 390-459/rest of I00-I99
10.3	13.3	22.2	31.1	36.2	47.1	77.4	179.0	416.8	1649.8	F	Chronic obstructive pulmonary disease	490-493/J40-J46
5.6	11.3	24.7	50.0	107.6	204.0	345.8	491.8	770.0	1089.5	M	Other respiratory disease	Rest of 460-519/rest of J00-J98
2.0	2.9	5.3	8.9	16.8	31.0	61.5	107.5	203.2	422.0	F		
31.6	46.8	65.4	72.2	73.5	74.4	76.5	80.6	86.7	156.9	M		
6.0	8.6	10.8	11.4	11.8	11.7	12.8	17.3	24.6	48.3	F		
5.2	7.9	9.8	12.2	14.2	19.1	18.1	21.8	28.0	25.2	M	Peptic ulcer	531-533/K25-K27
0.9	0.8	1.6	2.1	2.3	3.9	6.4	5.7	7.7	9.2	F		
36.6	58.6	75.2	99.9	104.0	102.1	85.4	76.3	61.0	47.5	M	Liver cirrhosis & some other digestive	570-3, 575.2-579.9/K70-K77, K82-K92
11.9	16.2	24.3	35.5	39.7	37.0	31.1	27.9	25.9	21.0	F	Renal disease	580-590/N00-N19
6.8	8.7	10.5	16.7	16.3	18.0	19.0	27.4	30.8	27.6	M		
3.7	4.7	6.0	9.1	10.2	15.1	14.2	13.8	12.2	9.9	F		
0.8	0.5	-	-	-	-	-	-	-	-	F	Pregnancy, birth	630-676/A34, O00-O99
1.7	2.9	1.9	2.6	1.6	0.9	0.2	0.3	0.8	0.4	M	Congenital and perinatal causes	740-779/A33, P00-P96, Q00-Q99
1.3	1.3	2.0	2.1	1.3	1.0	0.8	0.5	0.3	0.2	F	Ill-defined causes	780-799/R00-R99
10.8	16.5	21.2	26.8	28.9	25.0	22.0	43.1	154.1	1664.1	M		
1.6	2.0	3.4	6.1	6.3	6.1	6.7	26.1	137.0	1968.8	F		
53.5	63.2	81.8	89.9	83.8	87.0	86.7	108.0	144.9	204.1	M	Other medical causes	Rest of 001-799/rest of A00-R99
21.0	25.0	29.8	40.0	41.0	43.1	50.4	64.9	78.7	91.5	F		
321.3	401.1	443.6	480.8	426.5	381.9	297.0	259.3	207.3	702.1	M	ALL NON-MEDICAL CAUSES	E800-E999/V01-Y89
51.9	66.3	79.5	91.0	82.2	80.7	73.4	83.0	92.3	154.0	F	Road traffic accidents	E810-E819, E826-E829/part of V01-V99, Y850
27.9	26.7	28.3	26.0	26.8	21.9	18.8	20.9	15.8	18.4	M	Fire	E890-E899/X00-X09
5.3	6.2	6.1	6.1	7.1	6.7	7.2	7.2	9.5	8.5	F	Suicide	E950-E959/X60-X84
6.8	9.3	9.0	11.6	12.4	11.5	11.1	8.9	8.9	19.6	M	Homicide	E960-E969/X85-X99, Y00-Y09
0.8	1.8	1.8	2.0	2.4	2.1	2.0	4.3	6.2	9.5	F		
63.0	75.8	85.6	93.6	86.6	77.9	79.4	84.0	58.5	124.2	M		
8.1	10.8	11.4	13.1	13.5	14.7	15.9	18.5	19.9	30.0	F		
34.1	35.4	33.1	29.9	23.7	20.7	13.8	13.8	12.2	34.7	M		
8.1	10.0	10.3	8.6	7.7	8.3	7.7	9.1	10.8	18.0	F		
1799	1788	1649	1256	1092	1401	845	800	361	250	M	POPULATION	
1912	1956	1863	1501	1414	1926	1277	1501	971	857	F	(1000s; UN, 2004 revision)	

<b>UKRAINE: 1995, 2000</b>
----------------------------

**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	Cirrhosis & some other digestive	Other medical	Non-medical
<b>1995</b>												
0-34	Sm.	-	-	-	-	-	-	-	-	-	-	-
	Total	32494	1519	81	37	1401	122	1239	2635	490	8428	18061
35-69	Sm.	82500	23022	13477	4582	4963	9414	2724	38024	-	9316	-
	Total	233338	43218	14212	6197	22809	11344	6410	100363	7305	21217	43481
		(35%)	(53%)	(95%)	(74%)	(22%)	(83%)	(42%)	(38%)		(44%)	
70+	Sm.	20865	4566	3127	554	885	6524	161	8493	-	1121	-
	Total	130220	13229	3534	1040	8655	9856	1500	87102	806	13861	3866
		(16%)	(35%)	(88%)	(53%)	(10%)	(66%)	(11%)	(10%)		(8%)	
Any age	Sm.	103365	27588	16604	5136	5848	15938	2885	46517	-	10437	-
	Total	396052	57966	17827	7274	32865	21322	9149	190100	8601	43506	65408
		(26%)	(48%)	(93%)	(71%)	(18%)	(75%)	(32%)	(24%)		(24%)	
<b>2000</b>												
0-34	Sm.	-	-	-	-	-	-	-	-	-	-	-
	Total	27616	1280	67	42	1171	104	1041	2181	555	7778	14677
35-69	Sm.	66516	18202	10533	3837	3832	6687	2263	31116	-	8248	-
	Total	210854	36893	11213	5465	20215	8295	5881	92452	7489	21022	38822
		(32%)	(49%)	(94%)	(70%)	(19%)	(81%)	(38%)	(34%)		(39%)	
70+	Sm.	23661	5931	4081	711	1139	6243	153	10569	-	765	-
	Total	143790	16978	4607	1325	11046	9441	1351	101903	949	8588	4580
		(16%)	(35%)	(89%)	(54%)	(10%)	(66%)	(11%)	(10%)		(9%)	
Any age	Sm.	90177	24133	14614	4548	4971	12930	2416	41685	-	9013	-
	Total	382260	55151	15887	6832	32432	17840	8273	196536	8993	37388	58079
		(24%)	(44%)	(92%)	(67%)	(15%)	(72%)	(29%)	(21%)		(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+/ <i>NK</i>
<b>POPULATION (1000s; UN, 2004 revision)</b>													
1995	23932	12674	10122	1914	1774	1382	1242	1666	1060	1085	551	263	321
2000	22699	11458	9830	1799	1788	1649	1256	1092	1401	845	800	361	250
<b>NUMBER OF DEATHS (Source: WHO)</b>													
<b>All causes</b>													
1995	396052	32494	233338	14674	20025	22714	26356	48891	41922	58756	41652	27435	61133
2000	382260	27616	210854	13139	19313	24723	26712	28663	54797	43507	58779	37392	47619
<b>Lung cancer</b>													
1995	17827	81	14212	156	437	780	1619	3811	3283	4126	2042	901	591
2000	15887	67	11213	121	348	804	1289	1952	3877	2822	2991	1182	434
<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)													
<b>All causes</b>													
1995	1935.2*	262.4*	2567.0*	766.8	1128.6	1643.9	2121.4	2935.3	3956.0	5416.8	7555.2	10423.6	19044.5
2000	1873.9*	251.0*	2445.8*	730.5	1080.1	1498.9	2127.6	2625.8	3911.6	5146.3	7347.4	10360.8	19017.2
<b>All cancer</b>													
1995	269.8*	12.0*	490.9*	48.5	107.9	219.3	396.6	643.7	880.9	1139.6	1261.9	1277.0	906.9
2000	253.5*	11.1*	447.5*	43.7	89.6	193.7	377.3	558.1	840.6	1029.7	1249.3	1277.6	947.7
<b>Lung cancer</b>													
1995	81.8*	0.6*	162.6*	8.2	24.6	56.5	130.3	228.8	309.8	380.4	370.4	342.3	184.1
2000	71.9*	0.6*	138.1*	6.7	19.5	48.7	102.7	178.8	276.8	333.8	373.9	327.5	173.3
<b>Upper aerodigestive cancer (mouth, oesophagus, pharynx and larynx)</b>													
1995	33.3*	0.3*	68.7*	4.8	21.0	45.2	77.3	97.9	116.9	118.0	105.8	87.0	71.0
2000	31.6*	0.4*	64.5*	3.5	12.8	40.0	76.6	97.5	111.0	110.4	104.8	84.8	72.3
<b>Other cancer</b>													
1995	154.8*	11.0*	259.6*	35.6	62.3	117.6	189.0	317.1	454.2	641.2	785.8	847.6	651.7
2000	150.1*	10.2*	244.9*	33.5	57.3	105.0	198.0	281.8	452.9	585.5	770.6	865.3	702.1
<b>Chronic obstructive pulmonary disease (COPD)</b>													
1995	109.3*	0.9*	134.8*	6.5	16.0	32.4	71.9	138.6	277.6	400.4	631.4	855.6	1284.4
2000	89.3*	0.9*	107.0*	5.6	11.3	24.7	50.0	107.6	204.0	345.8	491.8	770.0	1089.5
<b>Other respiratory disease</b>													
1995	42.4*	10.6*	67.8*	27.7	42.5	60.4	65.8	82.6	95.8	99.8	111.0	127.3	172.3
2000	38.8*	10.2*	62.9*	31.6	46.8	65.4	72.2	73.5	74.4	76.5	80.6	86.7	156.9
<b>Vascular disease</b>													
1995	977.2*	20.6*	1153.7*	153.0	289.4	521.8	759.4	1247.7	1996.1	3108.6	4872.8	7186.9	12872.9
2000	1001.5*	19.4*	1137.7*	134.3	269.4	462.5	794.3	1122.7	2082.0	3098.8	4928.9	7540.6	14080.7
<b>Liver cirrhosis and some other digestive</b>													
1995	38.4*	3.8*	76.4*	26.4	52.8	76.7	86.5	99.7	96.3	96.6	84.7	68.8	49.2
2000	40.5*	4.9*	80.3*	36.6	58.6	75.2	99.9	104.0	102.1	85.4	76.3	61.0	47.5
<b>Other medical causes</b>													
1995	216.5*	72.2*	216.7*	133.3	180.3	220.5	236.1	249.7	241.4	255.4	341.4	667.9	3184.1
2000	190.3*	78.8*	217.2*	157.3	203.4	233.7	253.0	233.4	226.5	213.2	261.4	417.6	1992.8
<b>All non-medical causes</b>													
1995	281.6*	142.4*	426.6*	371.3	439.6	512.8	505.2	473.2	367.9	316.5	251.9	240.1	574.8
2000	259.9*	125.7*	393.2*	321.3	401.1	443.6	480.8	426.5	381.9	297.0	259.3	207.3	702.1

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

## 1995, 2000: UKRAINE

## 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	Cirrhosis & some other digestive	Other medical	Non-medical
<b>1995</b>												
0-34	Sm.	-	-	-	-	-	-	-	-	-	-	-
	Total	12434	1475	41	22	1412	82	705	829	155	5302	3886
35-69	Sm.	5494	989	774	62	153	937	67	2984	-	517	-
	Total	117547	26792	1843	397	24552	3211	1322	62423	3329	10339	10131
		(5%)	(4%)	(42%)	(16%)	(1%)	(29%)	(5%)	(5%)		(5%)	
70+	Sm.	7044	742	590	64	88	2436	25	3336	-	505	-
	Total	266582	15515	1388	420	13707	8969	1361	197049	916	39500	3272
		(3%)	(5%)	(43%)	(15%)	(1%)	(27%)	(2%)	(2%)		(1%)	
Any age	Sm.	12538	1731	1364	126	241	3373	92	6320	-	1022	-
	Total	396563	43782	3272	839	39671	12262	3388	260301	4400	55141	17289
		(3%)	(4%)	(42%)	(15%)	(1%)	(28%)	(3%)	(2%)		(2%)	
<b>2000</b>												
0-34	Sm.	-	-	-	-	-	-	-	-	-	-	-
	Total	9678	1166	38	15	1113	48	465	677	192	3884	3246
35-69	Sm.	3241	643	504	41	98	437	44	1813	-	304	-
	Total	100292	24025	1483	350	22192	1947	1212	52779	3200	8339	8790
		(3%)	(3%)	(34%)	(12%)	(0%)	(22%)	(4%)	(3%)		(4%)	
70+	Sm.	4730	577	466	45	66	1444	12	2487	-	210	-
	Total	265852	16781	1392	404	14985	7202	912	213884	851	22762	3460
		(2%)	(3%)	(33%)	(11%)	(0%)	(20%)	(1%)	(1%)		(1%)	
Any age	Sm.	7971	1220	970	86	164	1881	56	4300	-	514	-
	Total	375822	41972	2913	769	38290	9197	2589	267340	4243	34985	15496
		(2%)	(3%)	(33%)	(11%)	(0%)	(20%)	(2%)	(2%)		(1%)	

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+/ <i>NK</i>
<b>POPULATION (1000s; UN, 2004 revision)</b>													
1995	27599	12382	12216	2007	1912	1554	1489	2066	1418	1770	1264	701	1037
2000	26417	11239	11850	1912	1956	1863	1501	1414	1926	1277	1501	971	857
<b>NUMBER OF DEATHS (Source: WHO)</b>													
<b>All causes</b>													
1995	396563	12434	117547	4245	6081	8033	10243	22173	22528	44244	54410	49546	162626
2000	375822	9678	100292	3680	5529	8011	10252	13213	29133	30474	58955	66348	140549
<b>Lung cancer</b>													
1995	3272	41	1843	36	71	135	184	380	361	676	674	388	326
2000	2913	38	1483	36	68	133	183	214	434	415	676	475	241
<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)													
<b>All causes</b>													
1995	1004.3*	106.1*	985.2*	211.5	318.1	516.8	688.1	1073.1	1589.2	2499.7	4303.9	7071.9	15682.4
2000	970.1*	95.4*	917.3*	192.5	282.7	429.9	683.1	934.4	1512.5	2385.8	3928.0	6832.3	16407.8
<b>All cancer</b>													
1995	129.2*	11.7*	224.6*	52.4	85.1	149.2	195.8	281.6	352.0	456.0	568.5	580.8	410.7
2000	123.2*	10.3*	215.9*	48.7	81.9	130.2	207.4	253.8	352.1	436.9	525.0	572.4	390.1
<b>Lung cancer</b>													
1995	9.3*	0.3*	15.5*	1.8	3.7	8.7	12.4	18.4	25.5	38.2	53.3	55.4	31.4
2000	8.1*	0.3*	13.5*	1.9	3.5	7.1	12.2	15.1	22.5	32.5	45.0	48.9	28.1
<b>Upper aerodigestive cancer (mouth, oesophagus, pharynx and larynx)</b>													
1995	2.3*	0.2*	3.4*	0.5	1.2	2.1	2.8	3.7	5.8	7.3	12.1	14.6	15.9
2000	2.1*	0.1*	3.2*	0.6	1.2	1.7	2.7	3.5	5.0	7.6	10.3	12.4	15.1
<b>Other cancer</b>													
1995	117.6*	11.2*	205.7*	50.1	80.2	138.4	180.6	259.5	320.8	410.5	503.1	510.8	363.4
2000	113.0*	9.9*	199.1*	46.2	77.2	121.4	192.4	235.2	324.6	396.9	469.7	511.2	347.0
<b>Chronic obstructive pulmonary disease (COPD)</b>													
1995	29.8*	0.6*	27.2*	1.9	4.5	7.7	14.5	27.6	53.7	80.2	162.9	257.8	492.2
2000	22.3*	0.4*	18.3*	2.0	2.9	5.3	8.9	16.8	31.0	61.5	107.5	203.2	422.0
<b>Other respiratory disease</b>													
1995	11.0*	6.4*	10.9*	6.3	8.2	12.0	8.8	12.1	12.9	16.3	27.8	44.4	67.3
2000	9.0*	4.9*	10.5*	6.0	8.6	10.8	11.4	11.8	11.7	12.8	17.3	24.6	48.3
<b>Vascular disease</b>													
1995	619.9*	6.7*	525.3*	38.4	75.4	151.6	259.0	511.8	940.8	1699.8	3221.6	5535.5	11334.6
2000	643.2*	6.0*	496.8*	31.3	60.6	121.5	252.9	448.5	903.6	1658.9	3020.1	5647.0	13275.4
<b>Liver cirrhosis and some other digestive</b>													
1995	14.3*	1.2*	27.8*	7.4	17.6	26.1	34.5	40.6	34.6	33.7	33.9	33.1	24.6
2000	14.2*	1.7*	27.9*	11.9	16.2	24.3	35.5	39.7	37.0	31.1	27.9	25.9	21.0
<b>Other medical causes</b>													
1995	141.0*	47.7*	86.0*	43.9	51.6	78.4	79.1	101.3	115.1	132.8	204.2	516.3	3211.3
2000	104.0*	42.6*	72.9*	40.7	46.1	58.4	76.0	81.6	96.3	111.3	147.2	266.8	2096.9
<b>All non-medical causes</b>													
1995	59.3*	31.7*	83.5*	61.2	75.6	91.8	96.5	98.2	80.1	80.7	85.0	104.1	141.7
2000	54.3*	29.4*	75.0*	51.9	66.3	79.5	91.0	82.2	80.7	73.4	83.0	92.3	154.0

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

## UKRAINE: 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	– / 28	– / 9.7	–
35–69	67 / 211	3.2 / 100	19 years
70+	24 / 144	4.7 / 266	8 years
All ages	90 / 382	8.0 / 376	16 years

## Deaths, by cause, attributed to SMOKING / total deaths (thousands) in the year 2000

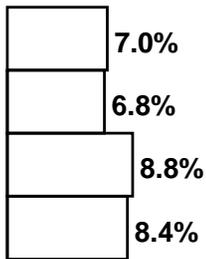
Cause	Male (by age)				Female (by age)			
	0–34	35–69	70+	All	0–34	35–69	70+	All
Lung Cancer	–/0.1	11/11	4.1/4.6	15/16	–/0.0	0.5/1.5	0.5/1.4	1.0/2.9
All Cancer	–/1.3	18/37 (49%)	5.9/17 (35%)	24/55	–/1.2	0.6/24 (3%)	0.6/17 (3%)	1.2/42
Vascular	–/2.2	31/92	11/102	42/197	–/0.7	1.8/53	2.5/214	4.3/267
Respiratory	–/1.1	8.9/14	6.4/11	15/26	–/0.5	0.5/3.2	1.5/8.1	1.9/12
All Other	–/23	8.2/67	0.8/14	9.0/104	–/7.3	0.3/20	0.2/27	0.5/55
All Causes	–/28	67/211 (32%)	24/144 (16%)	90/382	–/9.7	3.2/100 (3%)	4.7/266 (2%)	8.0/376

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

Cause	Male	Female	Male + Female
All Cancer	24 / 55 (44%)	1.2 / 42 (3%)	25 / 97 (26%)
All Causes	90 / 382 (24%)	8.0 / 376 (2%)	98 / 758 (13%)

1985-2000: UKRAINE

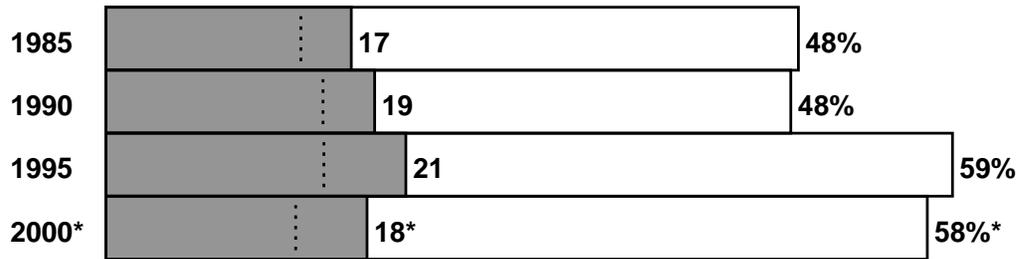
Population risk of dying at ages 0–34



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

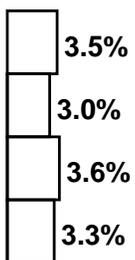
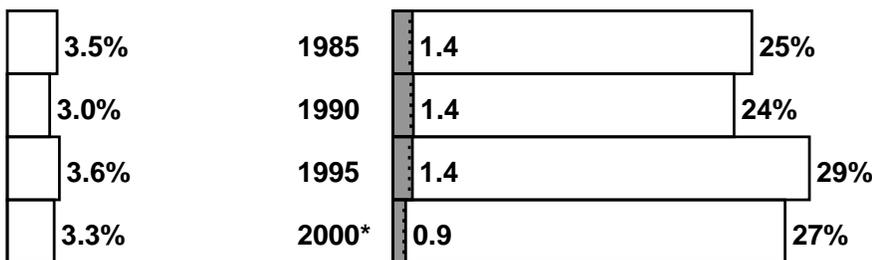
\*eg, at year 2000 male death rates, out of 100 men aged 35, 58 would die before age 70 (with 18 of these deaths attributed to smoking)

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



## UKRAINE: 1980-2000

## Numbers of deaths attributed to smoking / total deaths (thousands)

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	-/28	51/138 <b>(37%)</b>	18/121 <b>(15%)</b>	69/287	-/13	4.6/86 <b>( 5%)</b>	4.8/230 <b>( 2%)</b>	9.4/330
1990	-/26	63/159 <b>(40%)</b>	19/112 <b>(17%)</b>	82/298	-/11	5.6/93 <b>( 6%)</b>	8.2/228 <b>( 4%)</b>	14/332
1995	-/32	83/233 <b>(35%)</b>	21/130 <b>(16%)</b>	103/396	-/12	5.5/118 <b>( 5%)</b>	7.0/267 <b>( 3%)</b>	13/397
2000	-/28	67/211 <b>(32%)</b>	24/144 <b>(16%)</b>	90/382	-/9.7	3.2/100 <b>( 3%)</b>	4.7/266 <b>( 2%)</b>	8.0/376

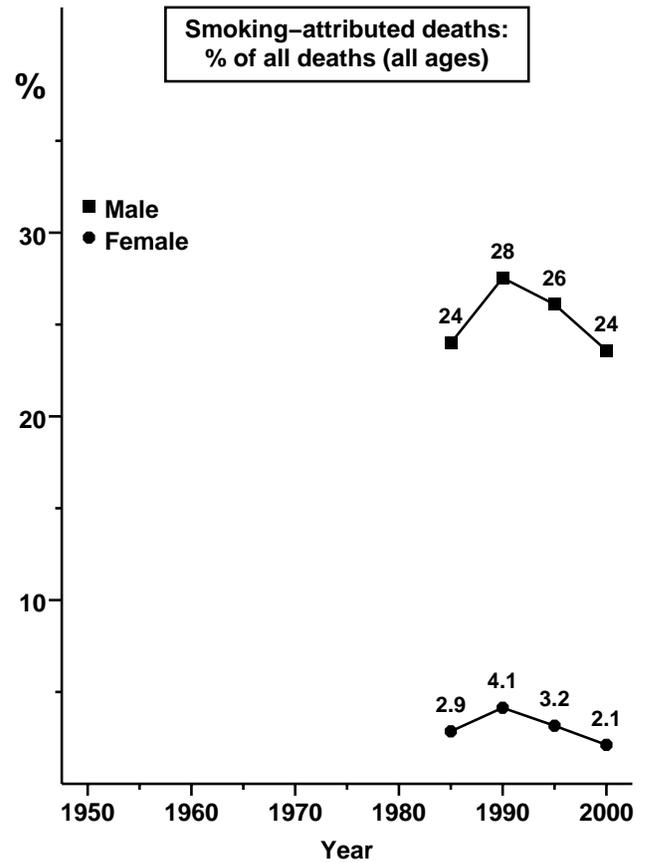
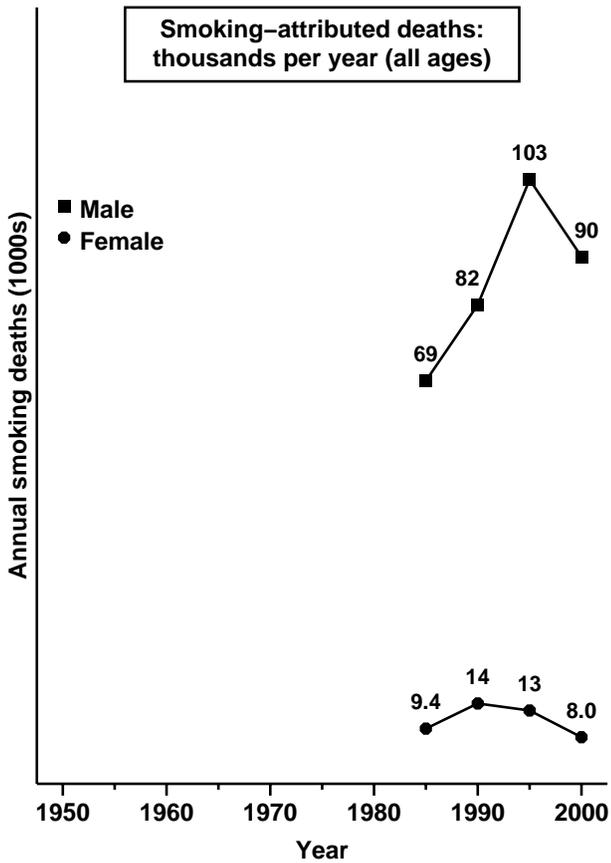
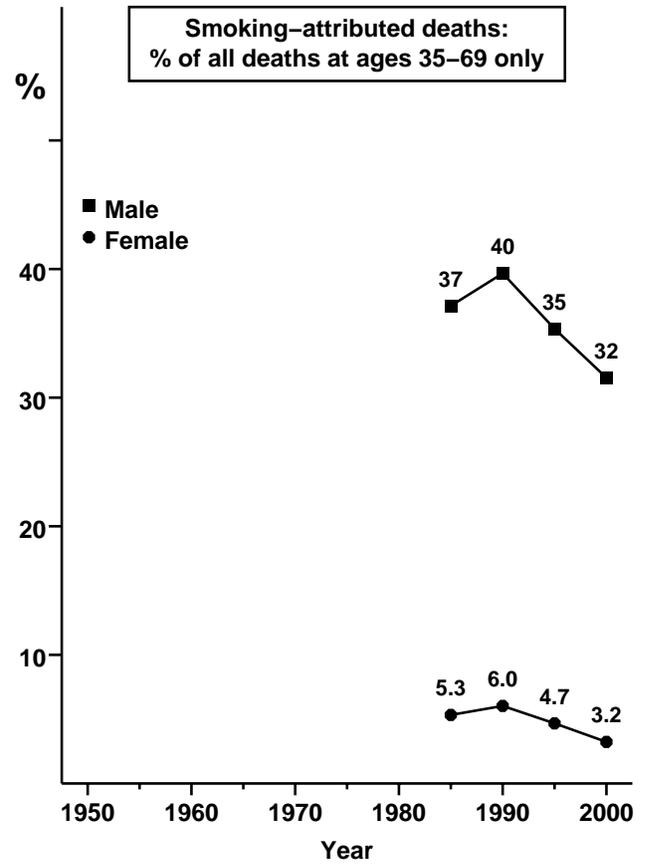
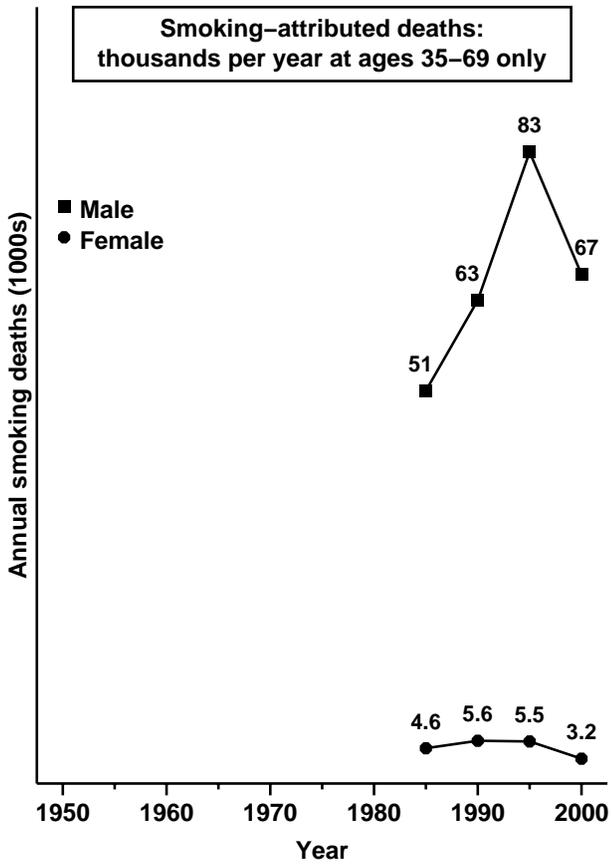
20-year total\* (M=millions), mid-1980 to mid-2000: **1.9/ 14M**

1980-2000 by age & sex:

-/0.6M	1.3/3.7M	0.4/2.5M	1.7/6.8M	-/0.3M	0.1/2.0M	0.1/5.0M	0.2/7.3M
	<b>(36%)</b>	<b>(15%)</b>			<b>( 5%)</b>	<b>( 2%)</b>	

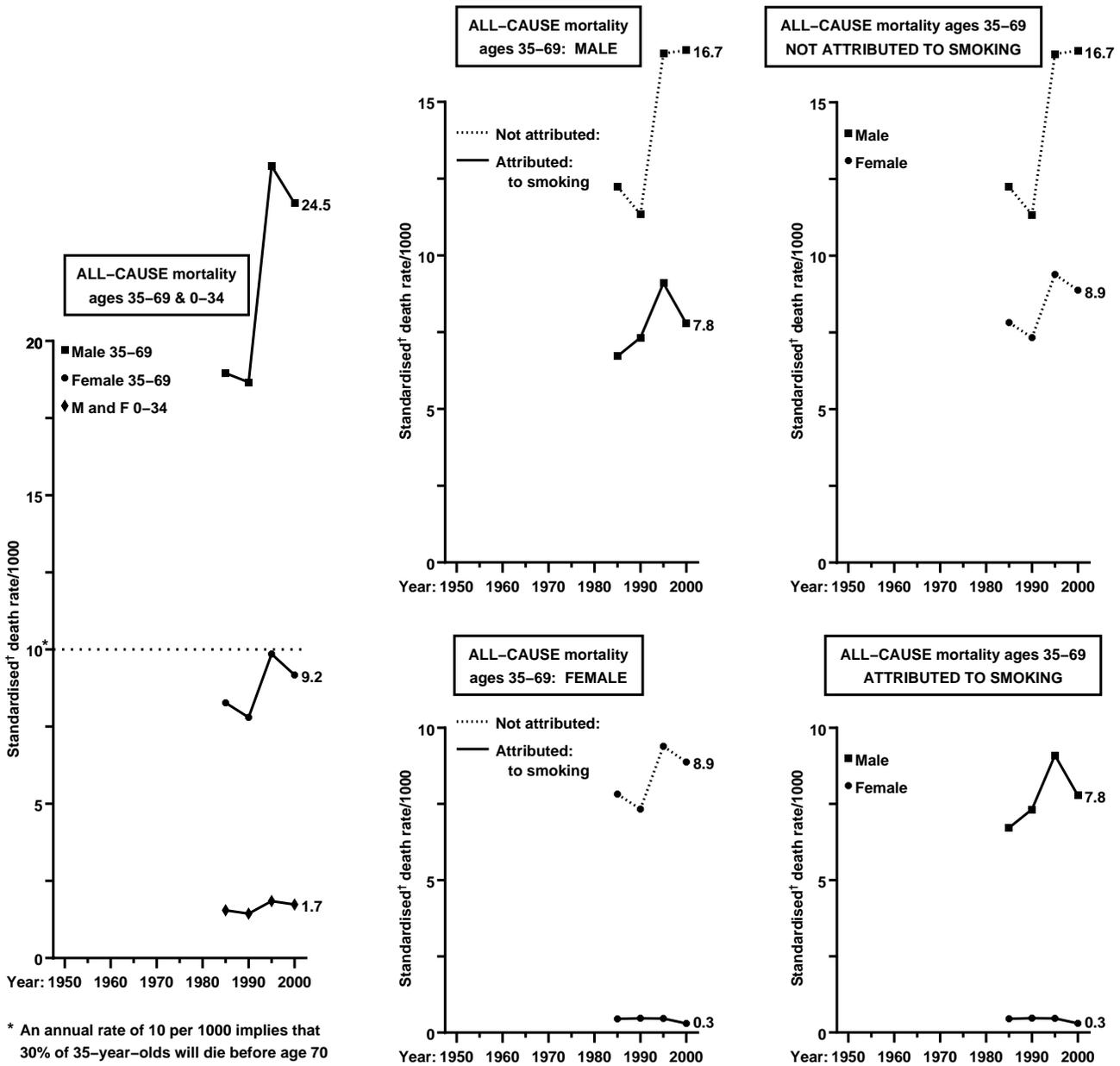
\*Estimated as 10 times the sum of the annual numbers for 1985 & 1995

1985-2000: UKRAINE



**UKRAINE: 1985-2000**

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



\* An annual rate of 10 per 1000 implies that 30% of 35-year-olds will die before age 70

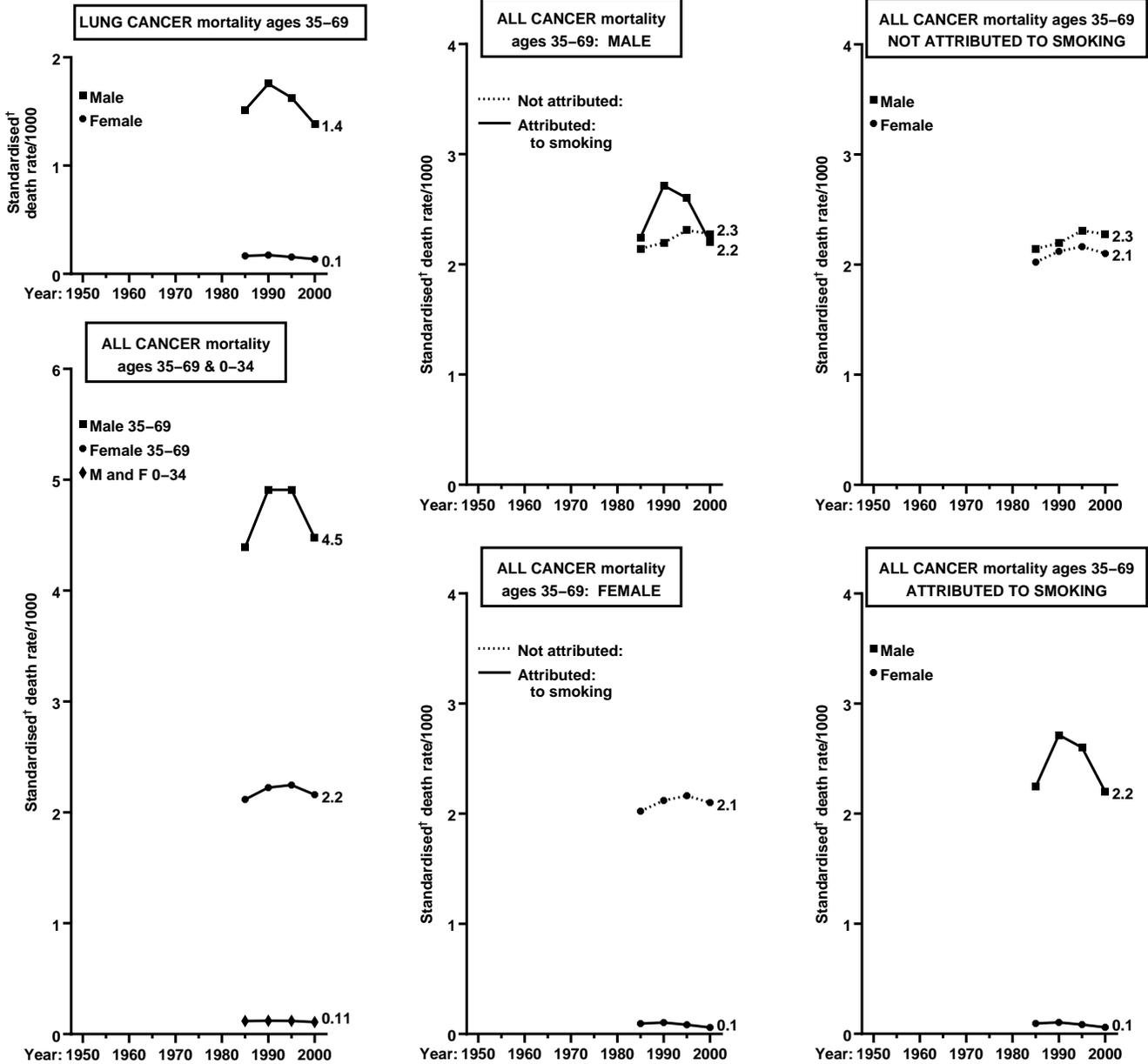
† Mean of 7 age-specific rates, ages 35-69 (or ages 0-34)

Year	MALE all-cause mortality (annual rate/1000, by age)						FEMALE all-cause mortality (annual rate/1000, by age)					
	0-34		35-69		70-79		0-34		35-69		70-79	
	Attributed to smoking?	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
1950	...	...	...	...	...	...	...	...	...	...	...	
1955	...	...	...	...	...	...	...	...	...	...	...	
1960	...	...	...	...	...	...	...	...	...	...	...	
1965	...	...	...	...	...	...	...	...	...	...	...	
1970	...	...	...	...	...	...	...	...	...	...	...	
1975	...	...	...	...	...	...	...	...	...	...	...	
1980	...	...	...	...	...	...	...	...	...	...	...	
1985	-	2.07	6.72	12.2	13.6	69.6	-	1.01	0.45	7.82	1.36	51.7
1990	-	2.01	7.32	11.3	15.8	61.9	-	0.86	0.47	7.33	2.28	47.0
1995	-	2.62	9.10	16.6	16.5	73.4	-	1.06	0.46	9.39	1.92	55.0
2000	-	2.51	7.78	16.7	15.5	73.0	-	0.95	0.30	8.87	1.18	52.6

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

1985-2000: UKRAINE

ALL CANCER mortality rates attributed and not attributed to smoking



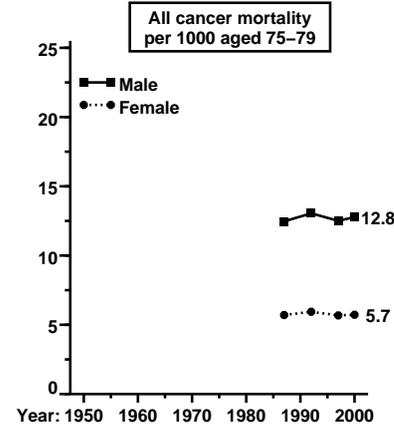
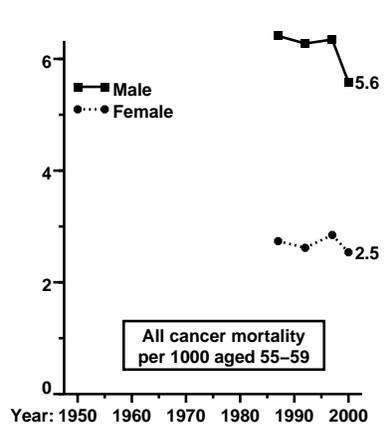
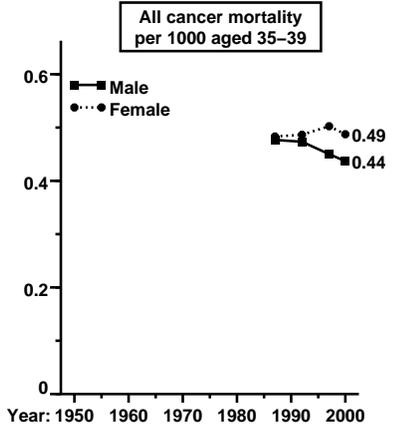
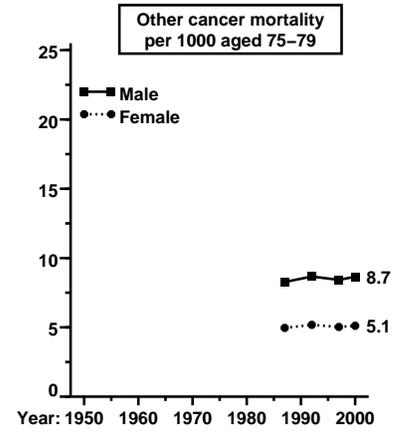
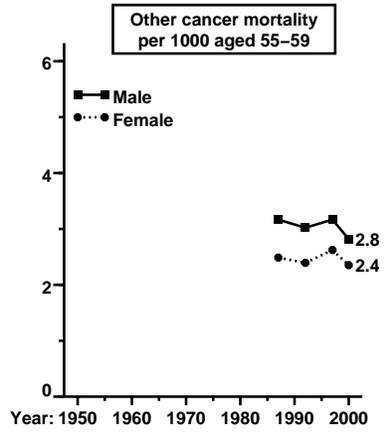
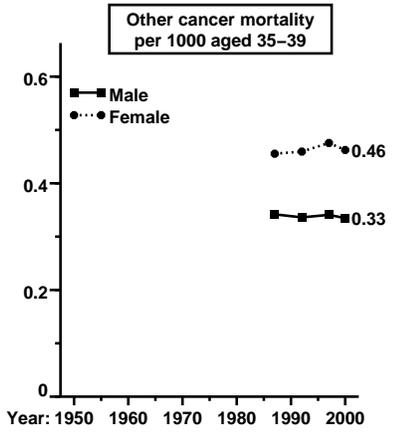
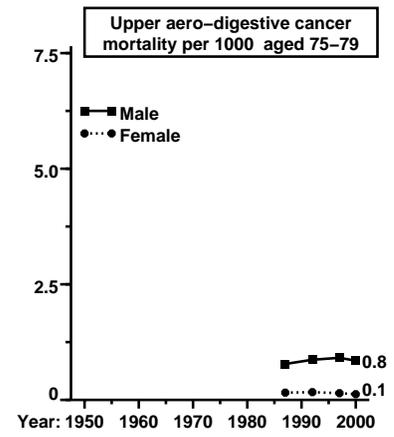
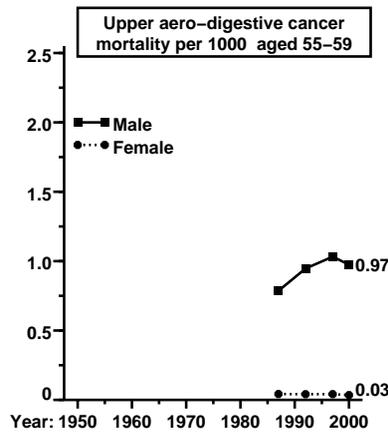
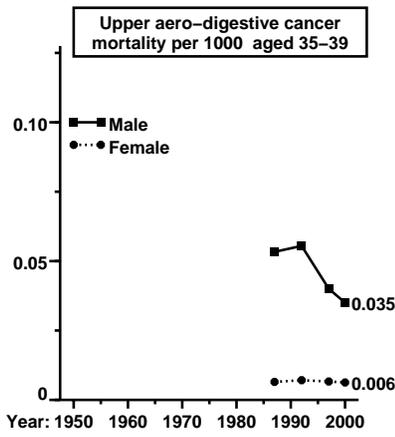
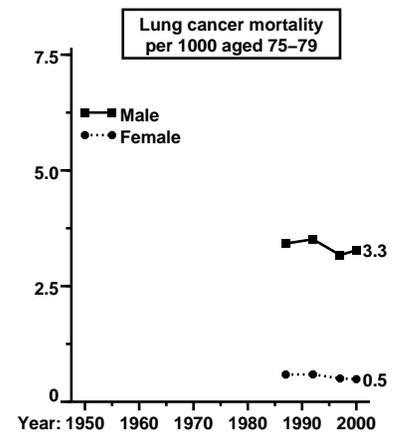
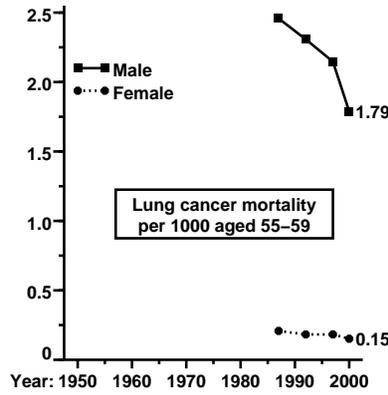
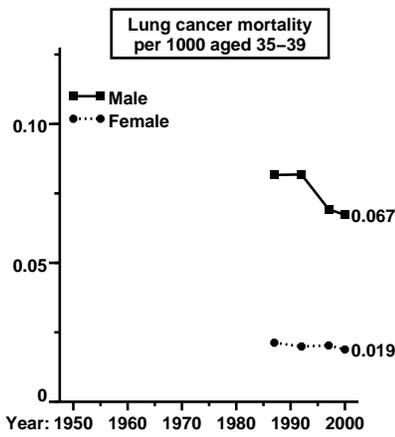
† Mean of 7 age-specific rates, ages 35-69 (or ages 0-34)

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		Attributed to smoking?		0-34		35-69		70-79	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1950	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1960	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1965	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1970	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1975	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1980	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1985	-	0.12	2.25	2.14	4.04	7.50	-	0.11	0.09	2.02	0.21	4.92	-	0.11	0.09	2.02
1990	-	0.13	2.71	2.19	5.01	8.29	-	0.11	0.10	2.12	0.40	5.61	-	0.12	0.08	2.16
1995	-	0.12	2.60	2.31	4.49	8.21	-	0.12	0.08	2.16	0.29	5.46	-	0.12	0.08	2.16
2000	-	0.11	2.20	2.28	4.40	8.23	-	0.10	0.06	2.10	0.19	5.30	-	0.10	0.06	2.10

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

**UKRAINE: 1985-2000**

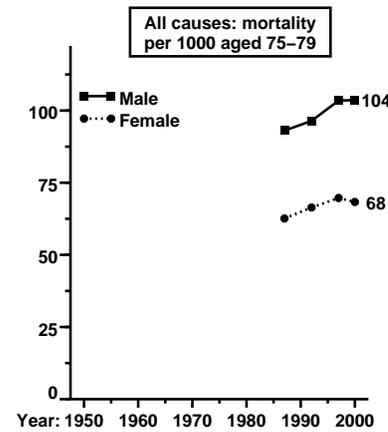
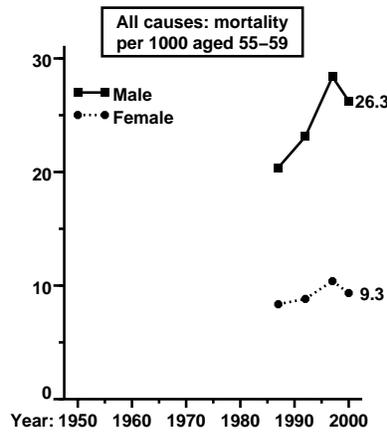
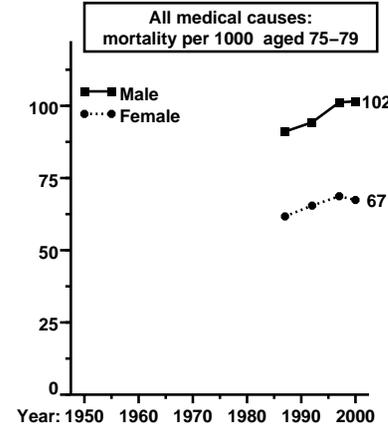
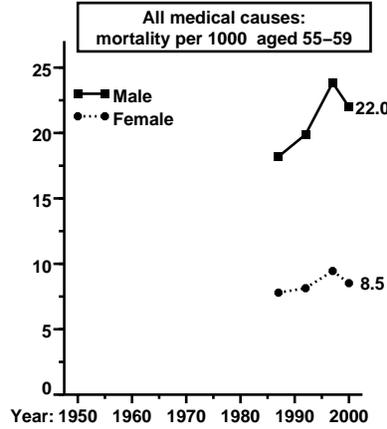
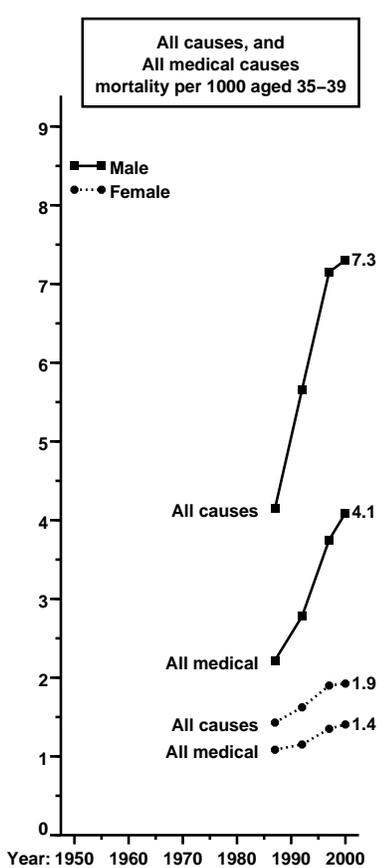
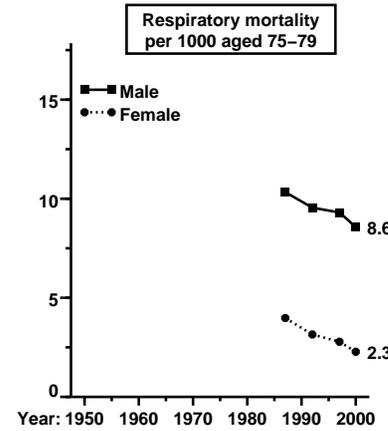
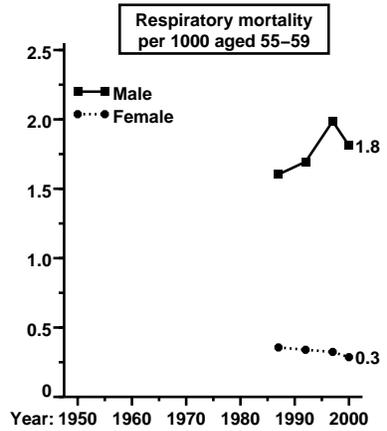
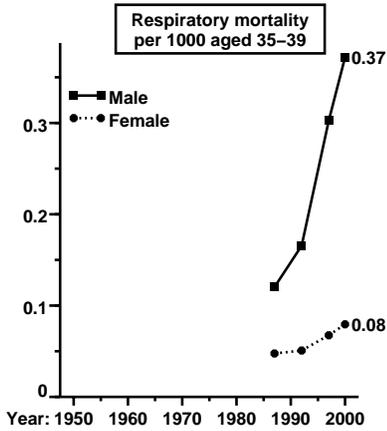
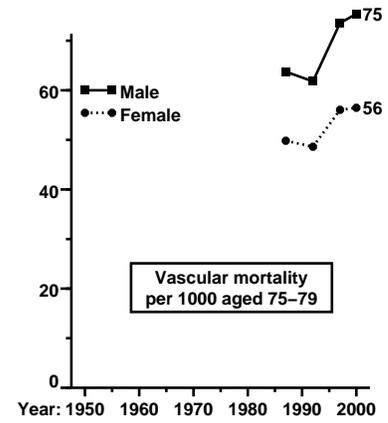
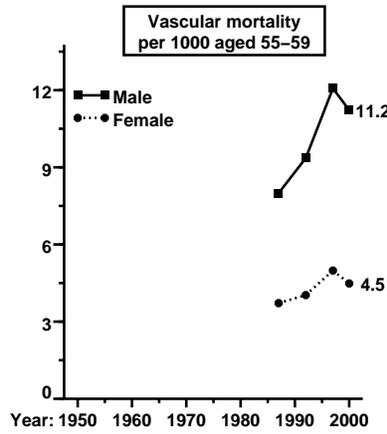
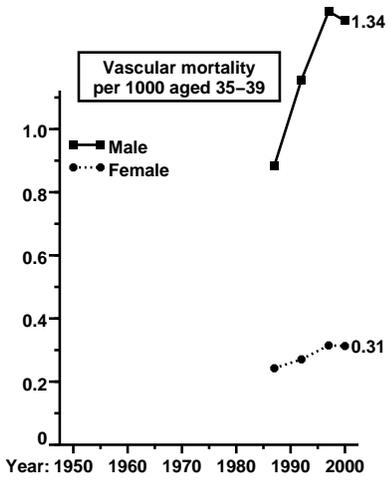
**Mortality\* trends at selected ages: 35-39, 55-59 & 75-79**



\* Annual mortality per 1000: averages of years available in 1985-89,....,1995-99; then year 2000 separately

1985-2000: UKRAINE

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



\* Annual mortality per 1000: averages of years available in 1985-89,.....,1995-99; then year 2000 separately