

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

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

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**MALTA**

**Raw data** (pages 314–15, 316–17)

**Analyses** (pages 318–19, 320–21, 322–23)

**Appendix** (pages 324–25)





## MALTA: 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.	-	-	-	-	-	-	-	-	-	-	-
	Total	86	9	0	0	9	0	1	6	1	40	29
35-69	Sm.	141	77	52	11	14	10	2	38	-	14	-
	Total	442 (32%)	183 (42%)	57 (91%)	17 (65%)	109 (13%)	13 (77%)	10 (20%)	152 (25%)	8	51 (27%)	25
70+	Sm.	171	69	44	7	18	46	6	38	-	12	-
	Total	839 (20%)	215 (32%)	50 (88%)	13 (54%)	152 (12%)	63 (73%)	55 (11%)	368 (10%)	2	121 (10%)	15
Any age	Sm.	312	146	96	18	32	56	8	76	-	26	-
	Total	1367 (23%)	407 (36%)	107 (90%)	30 (60%)	270 (12%)	76 (74%)	66 (12%)	526 (14%)	11	212 (12%)	69
<b>2000</b>												
0-34	Sm.	-	-	-	-	-	-	-	-	-	-	-
	Total	49	0	0	0	0	1	0	3	0	23	22
35-69	Sm.	116	58	44	2	12	12	3	35	-	8	-
	Total	474 (24%)	169 (34%)	49 (90%)	6 (33%)	114 (11%)	16 (75%)	14 (21%)	189 (19%)	7	48 (17%)	31
70+	Sm.	127	49	37	3	9	32	7	31	-	8	-
	Total	990 (13%)	191 (26%)	45 (82%)	8 (38%)	138 (7%)	56 (57%)	92 (8%)	494 (6%)	4	136 (6%)	17
Any age	Sm.	243	107	81	5	21	44	10	66	-	16	-
	Total	1513 (16%)	360 (30%)	94 (86%)	14 (36%)	252 (8%)	73 (60%)	106 (9%)	686 (10%)	11	207 (8%)	70

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	187.0	97.0	78.1	15.0	14.3	15.3	10.7	8.8	7.6	6.4	5.5	3.4	3.0
2000	194.1	96.6	84.5	13.7	15.1	14.3	15.3	10.5	8.5	7.1	5.6	4.2	3.2
<b>NUMBER OF DEATHS (Source: WHO)</b>													
<b>All causes</b>													
1995	1367	86	442	18	19	42	42	72	96	153	206	187	446
2000	1513	49	474	12	16	35	59	73	99	180	252	262	476
<b>Lung cancer</b>													
1995	107	-	57	1	2	4	7	9	12	22	11	18	21
2000	94	-	49	-	2	5	3	7	17	15	15	10	20
<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	839.1*	91.2*	770.3*	120.0	132.9	274.5	392.5	818.2	1263.2	2390.6	3745.5	5500.0	14866.7
2000	843.2*	52.2*	745.6*	87.6	106.0	244.8	385.6	695.2	1164.7	2535.2	4500.0	6238.1	14875.0
<b>All cancer</b>													
1995	248.5*	9.5*	314.9*	53.3	49.0	137.3	140.2	352.3	565.8	906.3	1072.7	1735.3	3233.3
2000	199.2*	-	264.1*	7.3	39.7	90.9	111.1	323.8	529.4	746.5	1250.0	1142.9	2281.3
<b>Lung cancer</b>													
1995	66.2*	-	102.3*	6.7	14.0	26.1	65.4	102.3	157.9	343.8	200.0	529.4	700.0
2000	52.5*	-	78.0*	-	13.2	35.0	19.6	66.7	200.0	211.3	267.9	238.1	625.0
<b>Upper aerodigestive cancer (mouth, oesophagus, pharynx and larynx)</b>													
1995	18.2*	-	29.5*	-	14.0	13.1	9.3	34.1	26.3	109.4	72.7	117.6	166.7
2000	7.4*	-	7.4*	7.3	-	7.0	6.5	19.0	11.8	-	89.3	47.6	31.3
<b>Other cancer</b>													
1995	164.1*	9.5*	183.1*	46.7	21.0	98.0	65.4	215.9	381.6	453.1	800.0	1088.2	2366.7
2000	139.2*	-	178.8*	-	26.5	49.0	85.0	238.1	317.6	535.2	892.9	857.1	1625.0
<b>Chronic obstructive pulmonary disease (COPD)</b>													
1995	47.5*	-	25.8*	-	-	6.5	9.3	-	39.5	125.0	181.8	500.0	1200.0
2000	40.6*	1.0*	24.3*	-	-	7.0	19.6	28.6	58.8	56.3	339.3	309.5	750.0
<b>Other respiratory disease</b>													
1995	42.0*	1.2*	19.5*	-	-	-	-	45.5	13.2	78.1	163.6	264.7	1233.3
2000	60.9*	-	21.4*	-	6.6	14.0	6.5	28.6	23.5	70.4	375.0	381.0	1718.8
<b>Vascular disease</b>													
1995	325.6*	6.3*	273.8*	6.7	49.0	58.8	168.2	261.4	513.2	859.4	1781.8	2411.8	6266.7
2000	384.1*	3.4*	313.4*	29.2	26.5	62.9	143.8	200.0	435.3	1295.8	2053.6	3214.3	7625.0
<b>Liver cirrhosis</b>													
1995	6.6*	1.1*	13.5*	6.7	7.0	-	9.3	11.4	13.2	46.9	-	29.4	33.3
2000	5.9*	-	9.0*	-	6.6	7.0	6.5	28.6	-	14.1	35.7	23.8	31.3
<b>Other medical causes</b>													
1995	130.7*	42.9*	91.0*	33.3	14.0	13.1	28.0	102.3	118.4	328.1	490.9	470.6	2600.0
2000	116.9*	26.0*	78.1*	-	13.2	28.0	32.7	66.7	82.4	323.9	375.0	1023.8	2250.0
<b>All non-medical causes</b>													
1995	38.1*	30.3*	31.8*	20.0	14.0	58.8	37.4	45.5	-	46.9	54.5	88.2	300.0
2000	35.6*	21.8*	35.3*	51.1	13.2	35.0	65.4	19.0	35.3	28.2	71.4	142.9	218.8

## 1995, 2000: MALTA

## 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	32	6	0	0	6	1	0	1	0	23	1
35-69	Sm.	0	0	0	0	0	0	0	0	-	0	-
	Total	289 (0%)	131 (0%)	2 (0%)	2 (0%)	127 (0%)	6 (0%)	6 (0%)	93 (0%)	5	38 (0%)	10
70+	Sm.	0	0	0	0	0	0	0	0	-	0	-
	Total	1020 (0%)	173 (0%)	7 (0%)	4 (0%)	162 (0%)	12 (0%)	61 (0%)	541 (0%)	2	216 (0%)	15
Any age	Sm.	0	0	0	0	0	0	0	0	-	0	-
	Total	1341 (0%)	310 (0%)	9 (0%)	6 (0%)	295 (0%)	19 (0%)	67 (0%)	635 (0%)	7	277 (0%)	26
<b>2000</b>												
0-34	Sm.	-	-	-	-	-	-	-	-	-	-	-
	Total	32	3	0	0	3	1	0	0	0	22	6
35-69	Sm.	10	4	4	0	0	1	0	4	-	1	-
	Total	318 (3%)	156 (3%)	12 (33%)	2 (0%)	142 (0%)	6 (17%)	6 (0%)	102 (4%)	1	40 (3%)	7
70+	Sm.	41	11	9	1	1	6	1	17	-	6	-
	Total	1110 (4%)	190 (6%)	15 (60%)	4 (25%)	171 (1%)	16 (38%)	83 (1%)	600 (3%)	2	197 (3%)	22
Any age	Sm.	51	15	13	1	1	7	1	21	-	7	-
	Total	1460 (3%)	349 (4%)	27 (48%)	6 (17%)	316 (0%)	23 (30%)	89 (1%)	702 (3%)	3	259 (3%)	35

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	190.7	91.7	82.2	14.7	14.0	15.3	11.2	9.7	9.3	8.0	6.9	4.5	5.4
2000	197.8	91.2	87.1	13.1	14.9	14.1	15.3	11.2	9.6	8.9	7.4	5.9	6.2
<b>NUMBER OF DEATHS (Source: WHO)</b>													
<b>All causes</b>													
1995	1341	32	289	3	12	24	29	43	66	112	176	216	628
2000	1460	32	318	8	10	24	51	45	69	111	177	257	676
<b>Lung cancer</b>													
1995	9	-	2	-	-	-	-	-	-	2	2	3	2
2000	27	-	12	1	-	2	3	1	2	3	7	4	4
<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	578.6*	36.0*	439.3*	20.4	85.7	156.9	258.9	443.3	709.7	1400.0	2550.7	4800.0	11629.6
2000	550.8*	37.7*	428.5*	61.1	67.1	170.2	333.3	401.8	718.8	1247.2	2391.9	4355.9	10903.2
<b>All cancer</b>													
1995	145.0*	6.7*	191.6*	-	35.7	104.6	187.5	195.9	354.8	462.5	681.2	1088.9	1425.9
2000	144.3*	3.6*	204.1*	30.5	40.3	85.1	215.7	196.4	343.8	516.9	743.2	1050.8	1177.4
<b>Lung cancer</b>													
1995	3.9*	-	3.6*	-	-	-	-	-	-	25.0	29.0	66.7	37.0
2000	11.3*	-	15.0*	7.6	-	14.2	19.6	8.9	20.8	33.7	94.6	67.8	64.5
<b>Upper aerodigestive cancer (mouth, oesophagus, pharynx and larynx)</b>													
1995	2.7*	-	2.6*	-	7.1	-	-	-	10.8	-	-	44.4	37.0
2000	2.3*	-	2.5*	-	-	-	6.5	-	-	11.2	-	67.8	-
<b>Other cancer</b>													
1995	138.4*	6.7*	185.4*	-	28.6	104.6	187.5	195.9	344.1	437.5	652.2	977.8	1351.9
2000	130.7*	3.6*	186.6*	22.9	40.3	70.9	189.5	187.5	322.9	471.9	648.6	915.3	1112.9
<b>Chronic obstructive pulmonary disease (COPD)</b>													
1995	8.8*	1.1*	8.3*	-	-	6.5	17.9	10.3	10.8	12.5	29.0	88.9	111.1
2000	8.8*	1.1*	8.5*	-	-	-	6.5	8.9	10.4	33.7	40.5	16.9	193.5
<b>Other respiratory disease</b>													
1995	26.6*	-	10.0*	-	-	-	8.9	-	10.8	50.0	14.5	222.2	925.9
2000	30.2*	-	7.7*	-	-	14.2	6.5	-	10.4	22.5	54.1	186.4	1096.8
<b>Vascular disease</b>													
1995	264.6*	1.1*	152.4*	-	7.1	13.1	26.8	154.6	215.1	650.0	1391.3	2444.4	6203.7
2000	251.9*	-	146.0*	15.3	20.1	35.5	39.2	133.9	250.0	528.1	1108.1	2271.2	6193.5
<b>Liver cirrhosis</b>													
1995	3.3*	-	6.8*	-	7.1	6.5	-	-	21.5	12.5	-	22.2	18.5
2000	1.1*	-	0.9*	-	-	-	6.5	-	-	-	-	-	32.3
<b>Other medical causes</b>													
1995	118.7*	25.8*	59.3*	6.8	-	19.6	17.9	61.9	96.8	212.5	420.3	844.4	2759.3
2000	100.3*	26.8*	53.4*	-	6.7	21.3	52.3	53.6	93.8	146.1	364.9	762.7	2016.1
<b>All non-medical causes</b>													
1995	11.7*	1.3*	10.9*	13.6	35.7	6.5	-	20.6	-	-	14.5	88.9	185.2
2000	14.3*	6.2*	7.9*	15.3	-	14.2	6.5	8.9	10.4	-	81.1	67.8	193.5

## MALTA: 2000

## Relative importance of deaths in MIDDLE age (35–69) in the year 2000

Age range (years)	Deaths attributed to SMOKING /total deaths		Mean years lost PER DEATH FROM SMOKING
	Male	Female	
0–34	– / 49	– / 32	–
35–69	116 / 474	10 / 318	20 years
70+	127 / 990	41 / 1110	8 years
All ages	243 / 1513	51 / 1460	14 years

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

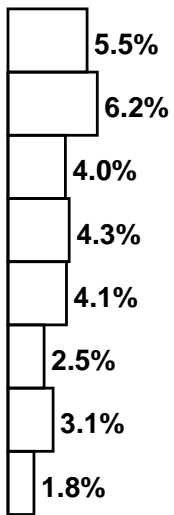
Cause	Male (by age)				Female (by age)			
	0–34	35–69	70+	All	0–34	35–69	70+	All
Lung Cancer	– / 0	44/49	37/45	81/94	– / 0	4/12	9/15	13/27
All Cancer	– / 0	58/169 (34%)	49/191 (26%)	107/360	– / 3	4/156 (3%)	11/190 (6%)	15/349
Vascular	– / 3	35/189	31/494	66/686	– / 0	4/102	17/600	21/702
Respiratory	– / 1	15/30	39/148	54/179	– / 1	1/12	7/99	8/112
All Other	– / 45	8/86	8/157	16/288	– / 28	1/48	6/221	7/297
All Causes	– / 49	116/474 (24%)	127/990 (13%)	243/1513	– / 32	10/318 (3%)	41/1110 (4%)	51/1460

Cancer deaths, and all deaths,  
attributed to SMOKING / total deaths in the year 2000

Cause	Male	Female	Male + Female
All Cancer	107 / 360 (30%)	15 / 349 (4%)	122 / 709 (17%)
All Causes	243 / 1513 (16%)	51 / 1460 (3%)	294 / 2973 (10%)

1965-2000: MALTA

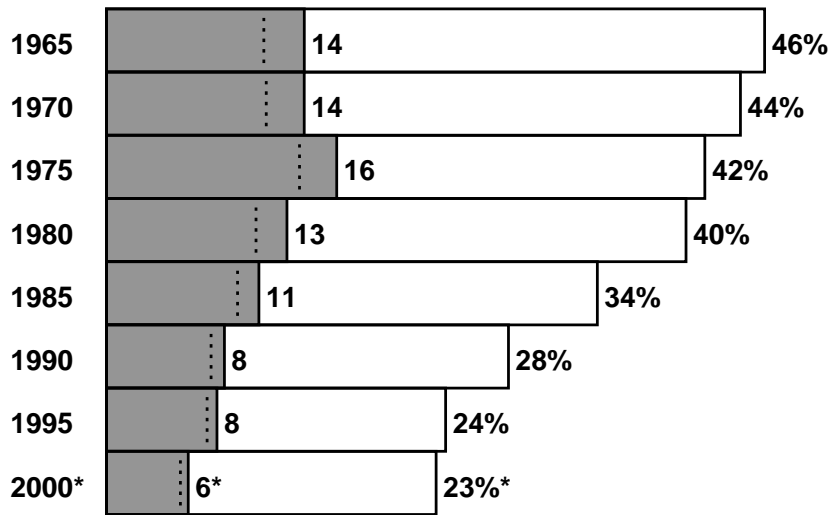
Population risk of dying at ages 0-34



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

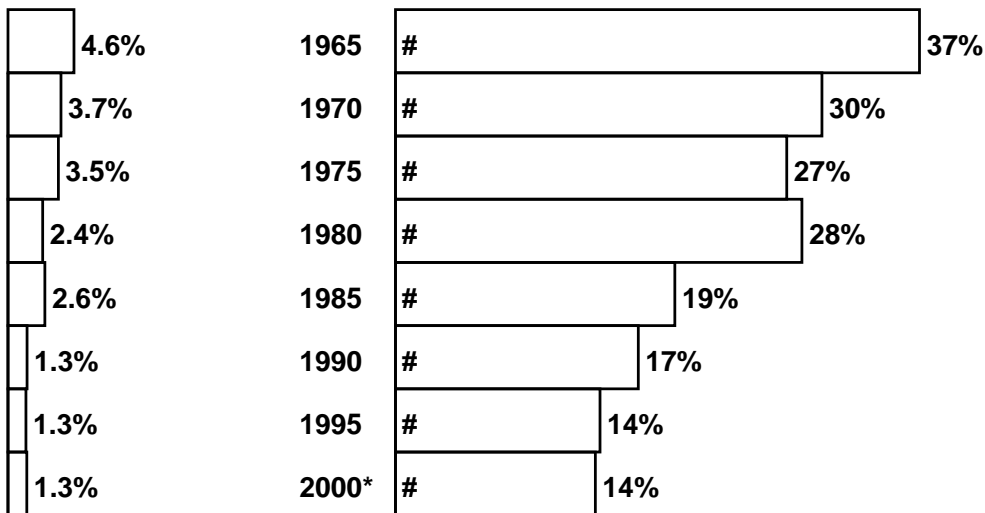
\*eg, at year 2000 male death rates, out of 100 men aged 35, 23 would die before age 70 (with 6 of these deaths attributed to smoking)

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



# Real risk too low to estimate reliably

## MALTA: 1960-2000

## 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	-/173	205/657 (31%)	70/739 (9%)	275/1569	-/134	4/469	0/829	4/1432
1970	-/156	218/688 (32%)	65/775 (8%)	283/1619	-/89	0/467	0/895	0/1451
1975	-/101	252/643 (39%)	68/827 (8%)	320/1571	-/90	0/424	0/924	0/1438
1980	-/123	197/625 (32%)	90/964 (9%)	287/1712	-/67	0/448	0/1074	0/1589
1985	-/117	176/562 (31%)	136/826 (16%)	312/1505	-/71	0/330	0/1009	0/1410
1990	-/71	141/484 (29%)	161/836 (19%)	302/1391	-/36	0/325	0/957	0/1318
1995	-/86	141/442 (32%)	171/839 (20%)	312/1367	-/32	0/289	0/1020	0/1341
2000	-/49	116/474 (24%)	127/990 (13%)	243/1513	-/32	10/318	41/1110	51/1460

40-year total\* (thousands), mid-1960 to mid-2000: 12 / 116

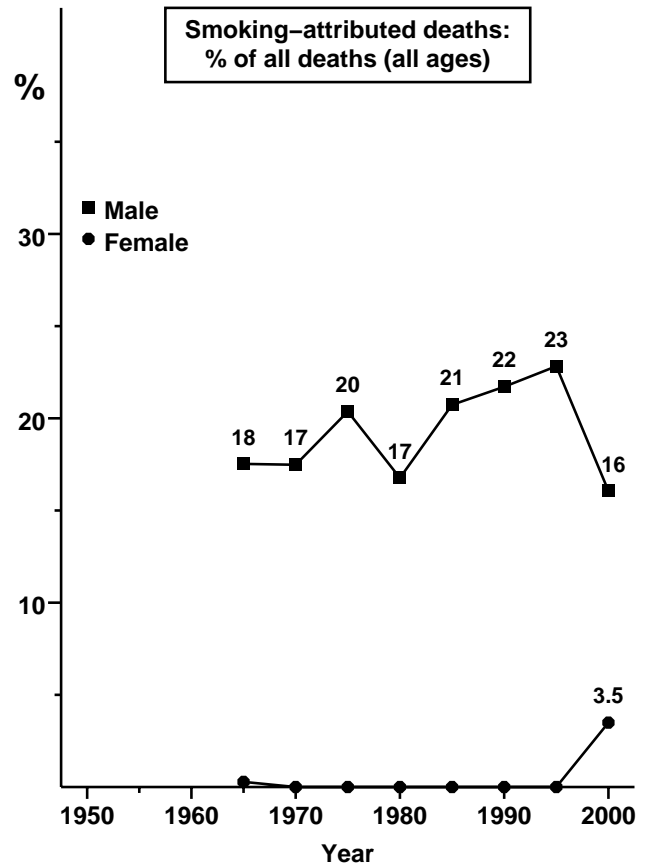
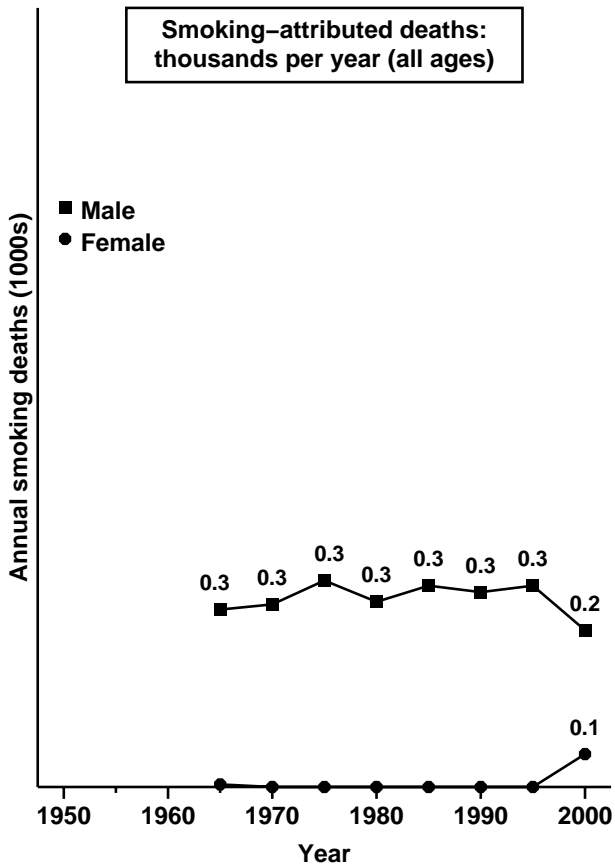
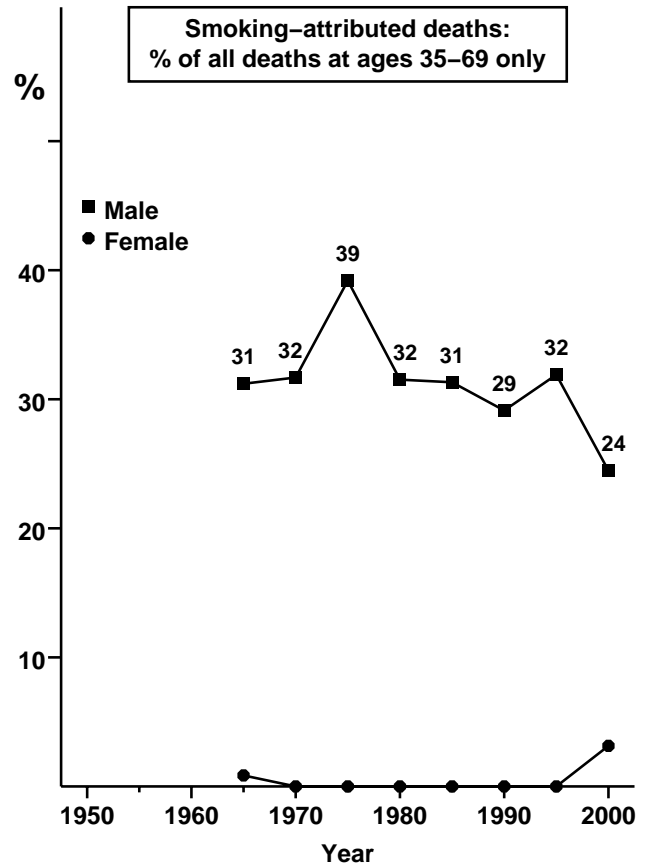
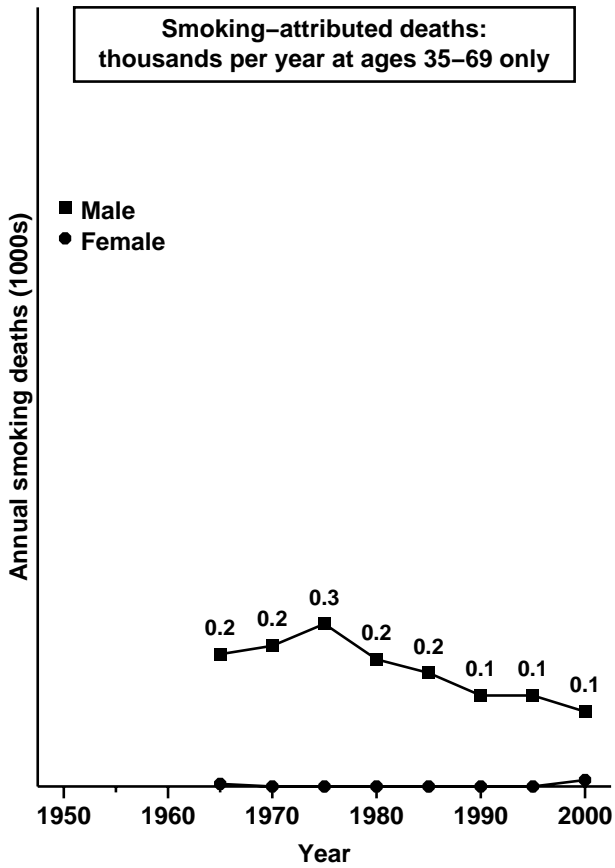
1960-2000 by age & sex:

-/4.8	7.7/23 (34%)	4.4/32 (14%)	12/60	-/3.3	0.0/15 (0.3%)	0.0/38 (0%)	0.0/56
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\*Estimated as 10 times the sum of the annual numbers for 1965, 1975, 1985 & 1995

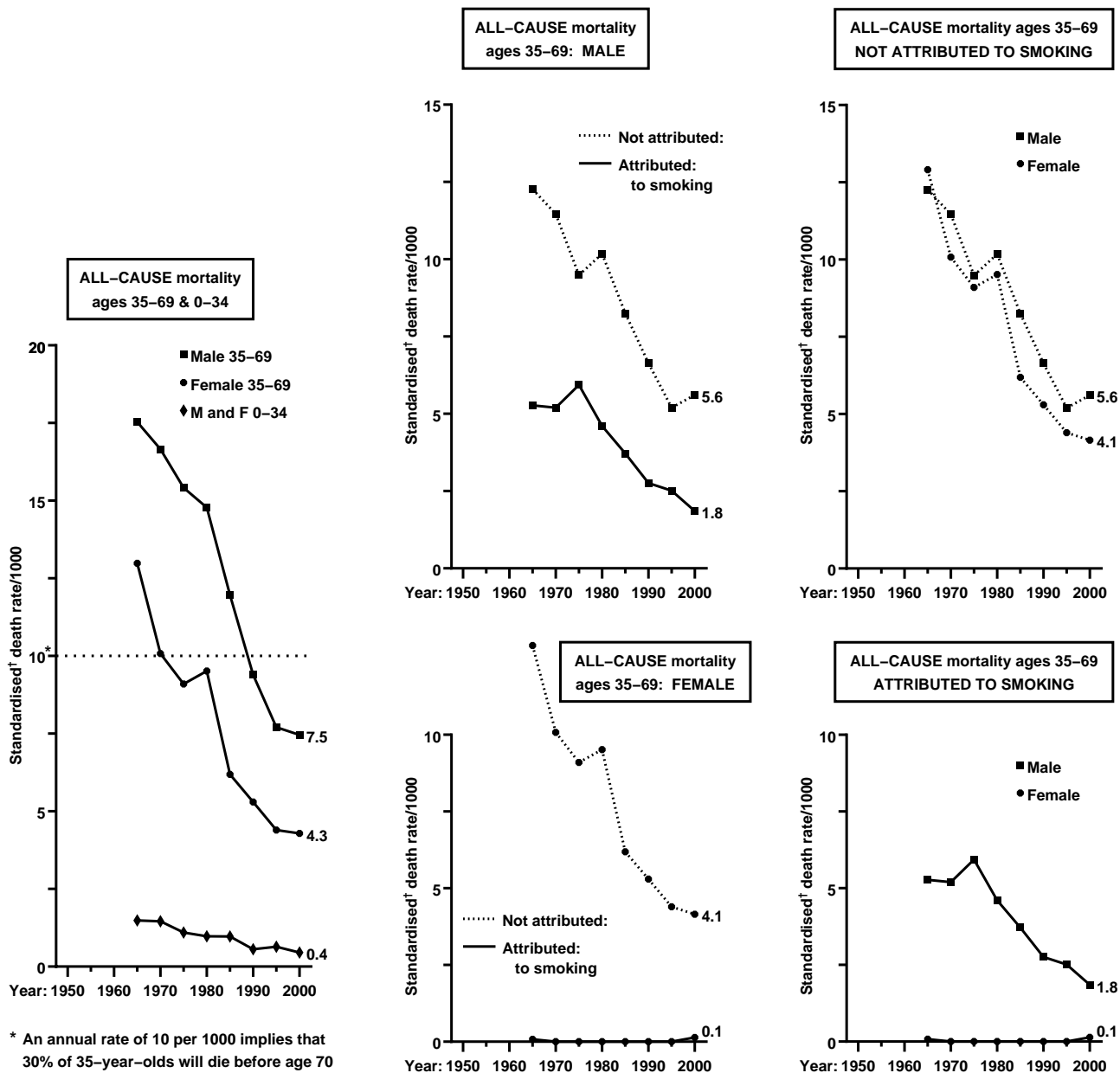


1965-2000: MALTA



**MALTA: 1965-2000**

**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

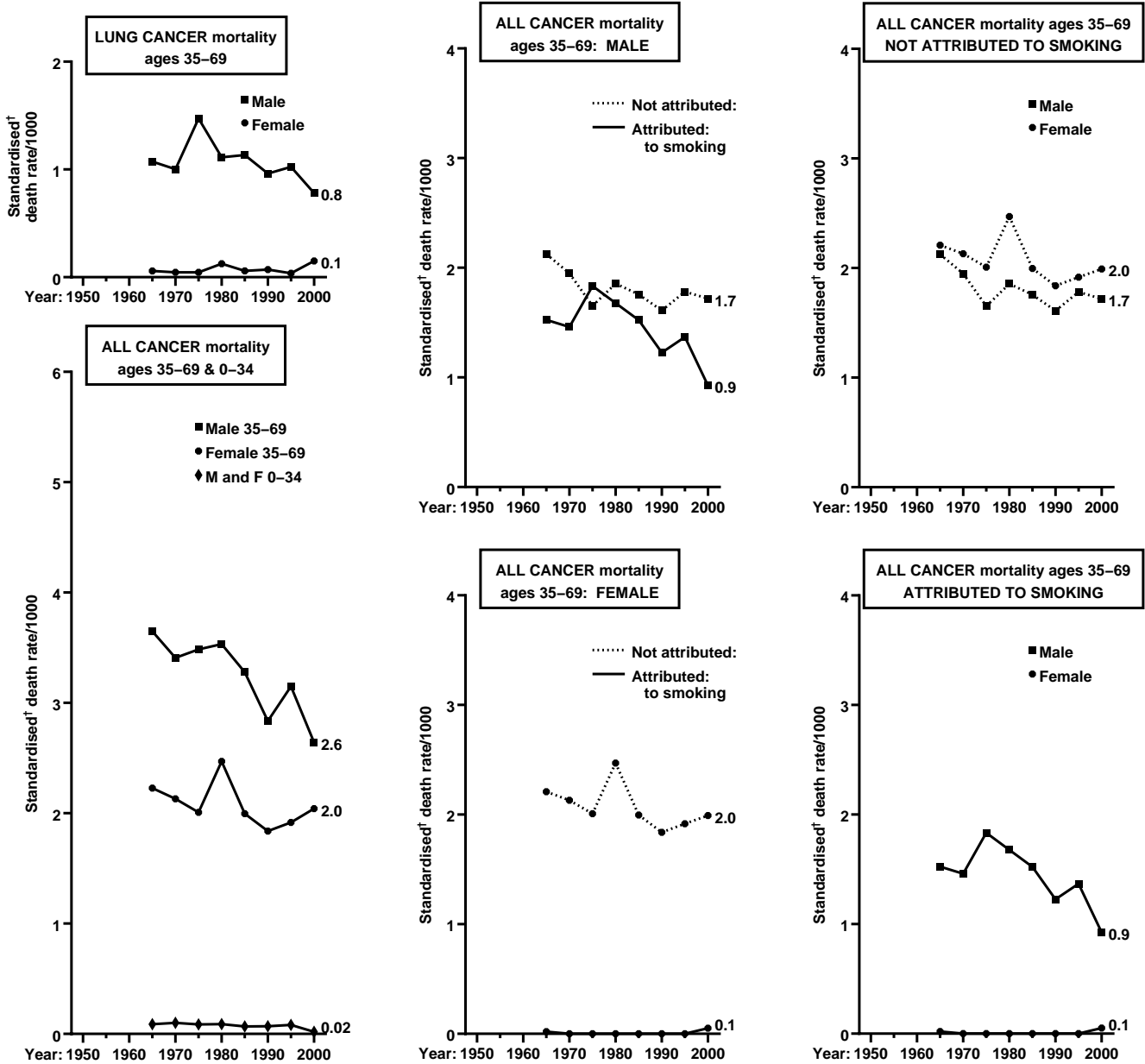
† Mean of 7 age-specific rates, ages 35-69 (or ages 0-34)

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	Yes	No			
1950	...	...	...	...	...	...	...	...	...	...	...	...	...			
1955	...	...	...	...	...	...	...	...	...	...	...	...	...			
1960	...	...	...	...	...	...	...	...	...	...	...	...	...			
1965	-	1.62	5.27	12.3	9.62	80.1	-	1.34	0.08	12.9	0.00	67.7				
1970	-	1.84	5.19	11.5	8.73	79.3	-	1.07	0.00	10.1	0.00	73.3				
1975	-	1.17	5.93	9.48	7.74	81.5	-	1.02	0.00	9.09	0.00	69.0				
1980	-	1.25	4.60	10.2	8.48	73.6	-	0.70	0.00	9.51	0.00	56.2				
1985	-	1.19	3.71	8.25	13.1	56.5	-	0.74	0.00	6.18	0.00	51.4				
1990	-	0.73	2.76	6.63	12.5	53.1	-	0.38	0.00	5.30	0.00	39.2				
1995	-	0.91	2.51	5.19	9.97	36.3	-	0.36	0.00	4.39	0.00	36.8				
2000	-	0.52	1.85	5.61	7.77	45.9	-	0.38	0.14	4.15	1.79	31.9				

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

1965-2000: MALTA

ALL CANCER mortality rates attributed and not attributed to smoking



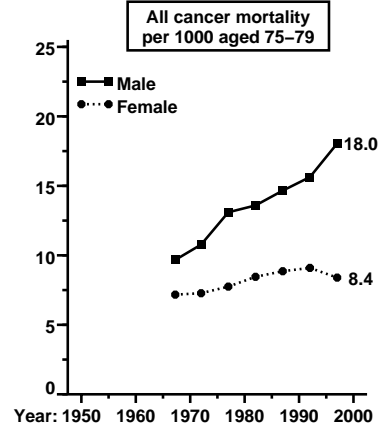
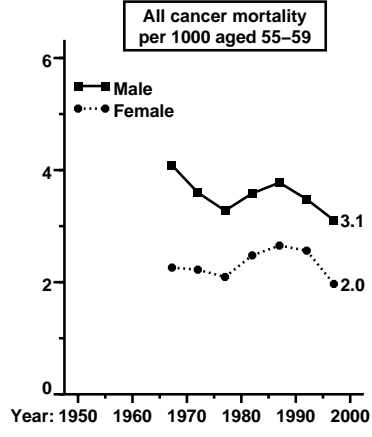
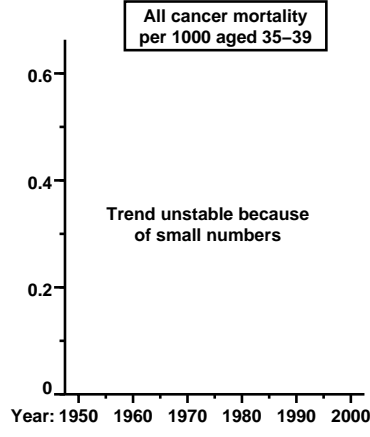
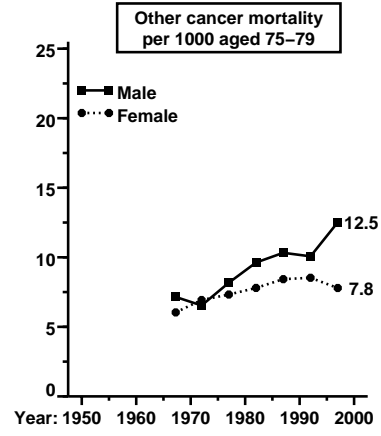
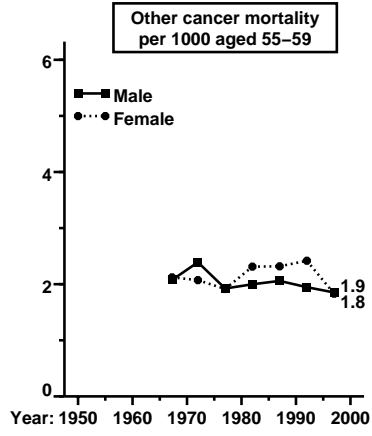
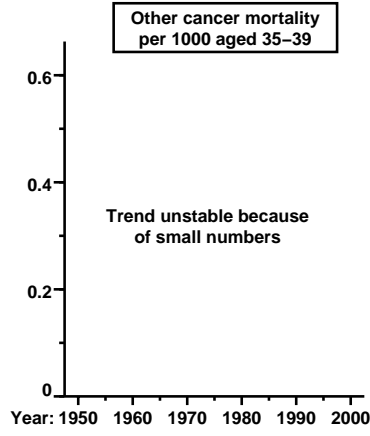
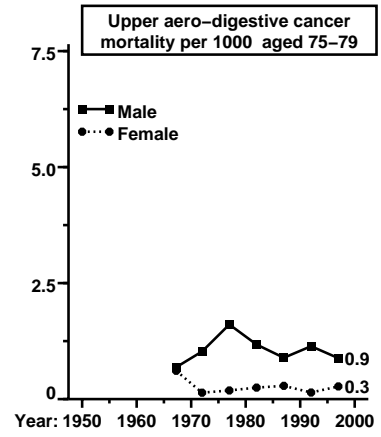
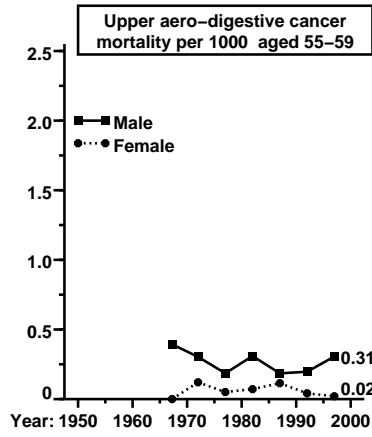
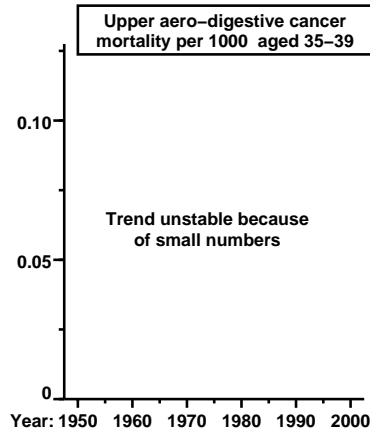
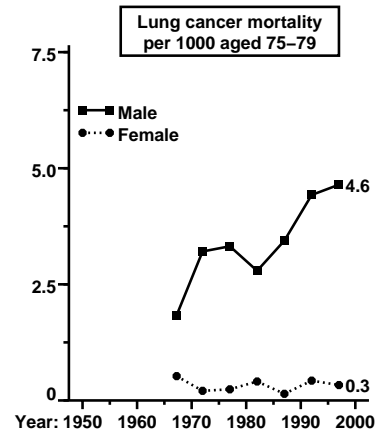
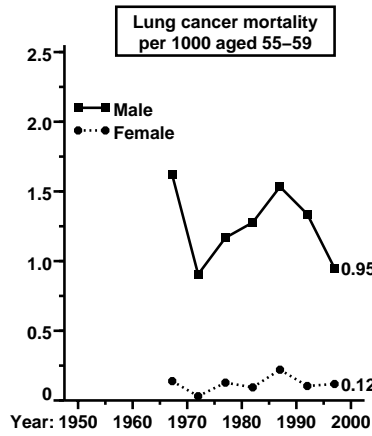
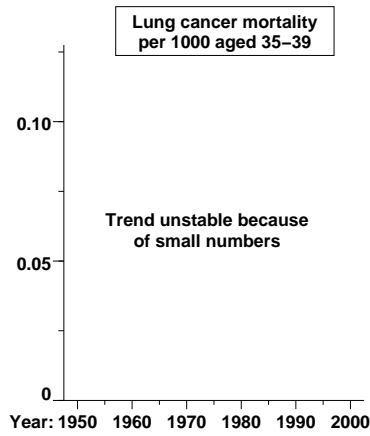
† Mean of 7 age-specific rates, ages 35-69 (or ages 0-34)

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	-	0.06	1.52	2.12	2.86	6.90	-	0.11	0.02	2.21	0.00	6.60	0.00	7.96	0.00	6.60
1970	-	0.15	1.46	1.95	2.07	7.39	-	0.05	0.00	2.13	0.00	7.96	0.00	5.64	0.00	5.64
1975	-	0.10	1.83	1.65	1.71	7.85	-	0.07	0.00	2.01	0.00	7.59	0.00	8.56	0.00	8.56
1980	-	0.11	1.68	1.85	2.94	8.67	-	0.06	0.00	2.47	0.00	7.59	0.00	8.56	0.00	8.56
1985	-	0.06	1.52	1.76	4.74	8.61	-	0.07	0.00	2.00	0.00	8.56	0.00	6.65	0.00	6.65
1990	-	0.06	1.23	1.61	4.85	10.3	-	0.07	0.00	1.84	0.00	6.65	0.00	8.85	0.00	8.85
1995	-	0.09	1.37	1.78	4.66	9.39	-	0.07	0.00	1.92	0.00	8.85	0.00	8.31	0.00	8.31
2000	-	0.00	0.92	1.72	3.01	8.96	-	0.04	0.05	1.99	0.66	8.31	0.66	8.31	0.66	8.31

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

**MALTA: 1965-2000**

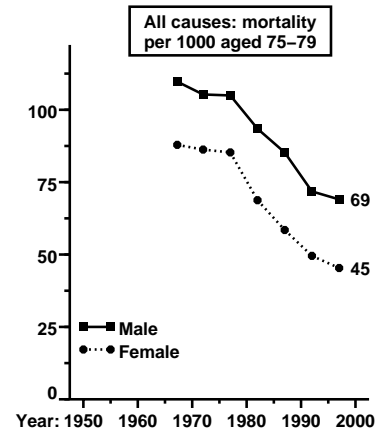
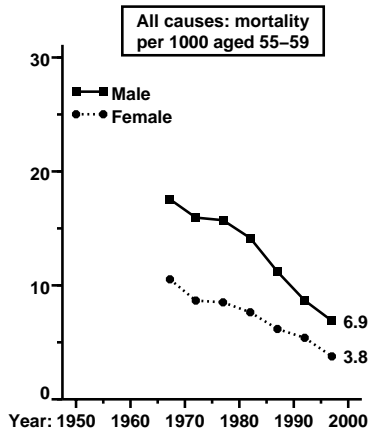
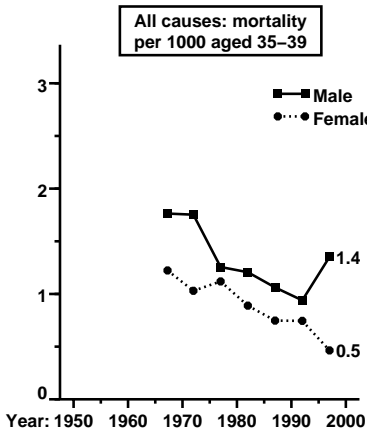
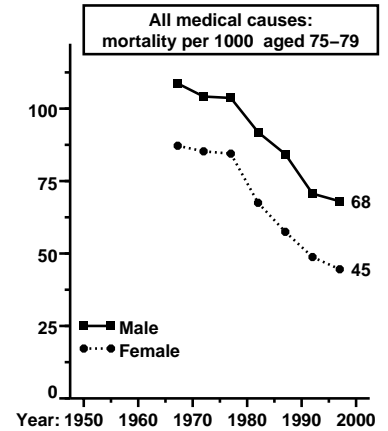
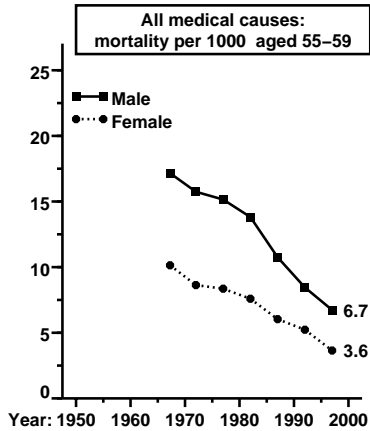
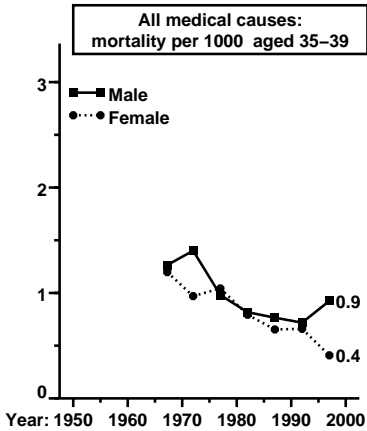
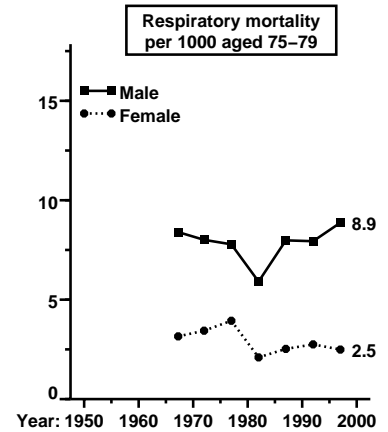
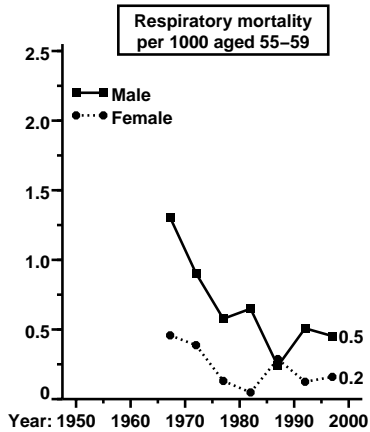
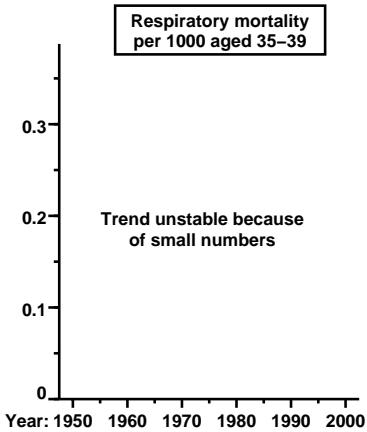
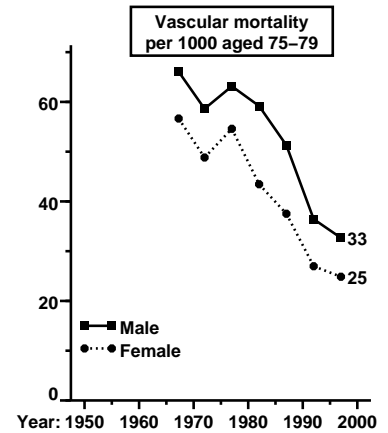
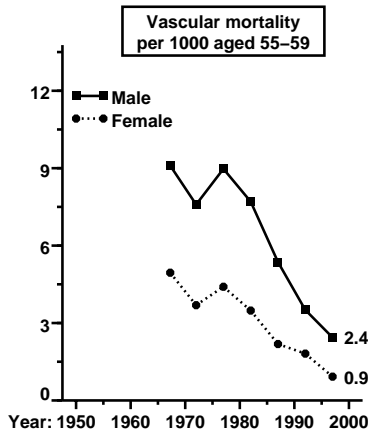
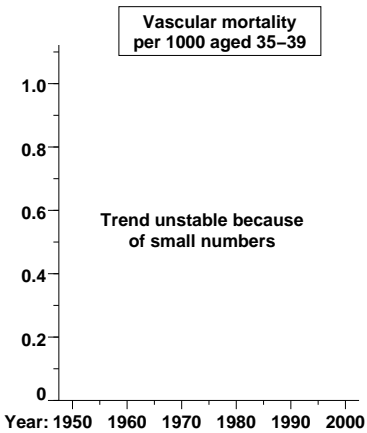
**Mortality\* trends at selected ages: 35-39, 55-59 & 75-79**



\* Annual mortality per 1000: averages of years available in 1965-69, ..., 1995-99; year 2000 on pages 314-315

1965-2000: MALTA

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



\* Annual mortality per 1000: averages of years available in 1965-69,.....,1995-99; year 2000 on pages 314-315