

10.1. INTRODUCTION AND SUMMARY

Table 10.1. Summary of incidence and mortality statistics: breast cancer

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
All cancers (invasive, in situ and uncertain) (ICD-O-2 C50)						
1997 cases	16	1715	1731	3	634	637
% of all cancers	0.2%	15.7%	8.1%	0.1%	17.9%	8.4%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	0.9	93.4	47.5	0.2	34.5	17.5
World age-standardised rate	0.7	75.6		0.1	24.8	
European age-standardised rate	1.1	102.6		0.2	35.4	
cumulative risk (0-74)	0.1%	8.1%		0.0%	2.8%	
mortality/incidence ratio	0.188	0.370	0.368			
Time trends (all cancers)						
1994 cases	14	1595	1609	4	648	652
1995 cases	8	1596	1604	7	655	662
1996 cases	17	1689	1706	6	635	641
1997 cases	16	1715	1731	3	634	637
1994-1997 average	14	1649	1663	5	643	648
annual % change 1994-97	+14.9%	+1.3%	+1.4%	-12.4%	-2.1%	-2.1%
95% confidence limits of trend	(-20.5%; 66.0%)	(-0.7%; 3.3%)	(-0.6%; 3.4%)	(-47.0%; 44.5%)	(-3.2%; -0.9%)	(-3.4%; -0.9%)
Invasive cancers only (ICD-10 C50)						
1997 cases	16	1620	1636	3	634	637
% of all invasive cancers	0.2%	18.4%	8.8%	0.1%	18.1%	8.5%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	0.9	88.2	44.9	0.2	34.5	17.5
World age-standardised rate	0.8	71.1		0.1	24.8	
European age-standardised rate	1.1	96.7		0.2	35.4	
cumulative risk (0-74)	0.1%	7.7%		0.0%	2.8%	
mortality/incidence ratio	0.176	0.391	0.389			

Breast cancer was the commonest non-skin cancer in women (16% of the total) but was rare in men (Table 10.1). Overall mortality for women was 37% (63% survival). Female breast cancer has increased in incidence since 1994, by 1.3% per year, but this is not statistically significant.

10.2. AGE AND SEX PROFILE

Table 10.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for breast cancers, 1994 to 1997

	MALES			FEMALES		
	cases	cases per 100,000	relative rate	cases	cases per 100,000	relative rate
0-4	0	0	0.0	0	0	0.0
5-9	0	0	0.0	0	0	0.0
10-14	0	0	0.0	0	0	0.0
15-19	0	0	0.0	0	0	0.0
20-24	0	0	0.0	2	1	0.1
25-29	0	0	0.0	8	6	0.2
30-34	0	0	0.0	29	22	0.6
35-39	0	0	1.4	78	60	1.3
40-44	1	1	2.6	139	116	1.9
45-49	1	0	1.1	197	180	2.1
50-54	1	1	0.6	218	241	1.9
55-59	2	2	1.4	195	258	1.6
60-64	1	2	0.8	174	251	1.2
65-69	2	4	1.1	170	255	0.9
70-74	3	7	1.3	161	259	0.7
75-79	2	5	0.8	130	267	0.6
80-84	1	5	0.7	90	261	0.5
>85	1	7	0.9	60	253	0.5
all ages	14	1	1.0	1649	91	1.0

Breast cancer in women was commonest in those aged 50 to 54, while the relative incidence was highest for those aged 45 to 49 (Table 10.2). Sporadic male cases were seen at all ages over 40, but most were in men aged 65 and over.

10.3. SUBSITES

A subsite was specified in over 80% of female breast cancers (Table 10.3). This was most often the upper outer quadrant of the breast (37% of cases). In 15%, the lesion extended over more than one subsite.

Table 10.3. Subsites of female breast cancer

DESCRIPTION	ICD SITE CODE	CASES	% OF TOTAL
nipple	C50.0	47	2.7%
central portion	C50.1	226	13.2%
upper inner quadrant	C50.2	176	10.3%
lower inner quadrant	C50.3	72	4.2%
upper outer quadrant	C50.4	628	36.6%
lower outer quadrant	C50.5	108	6.3%
maxillary tail	C50.6	11	0.6%
overlapping lesion	C50.8	249	14.5%
not specified	C50.9	198	11.5%
all cancers		1715	

10.4. GEOGRAPHICAL DISTRIBUTION.

INTERNATIONAL

Female breast cancer incidence in Ireland ranked 12th of 23, below Scotland, England and Northern Ireland (Table 10.4). As the existence of a breast cancer screening programme can add over 10% to the incidence levels, these are not easily comparable between countries, such as Ireland, without such a programme in 1997, and most other Western European countries, which had a programme of some sort.

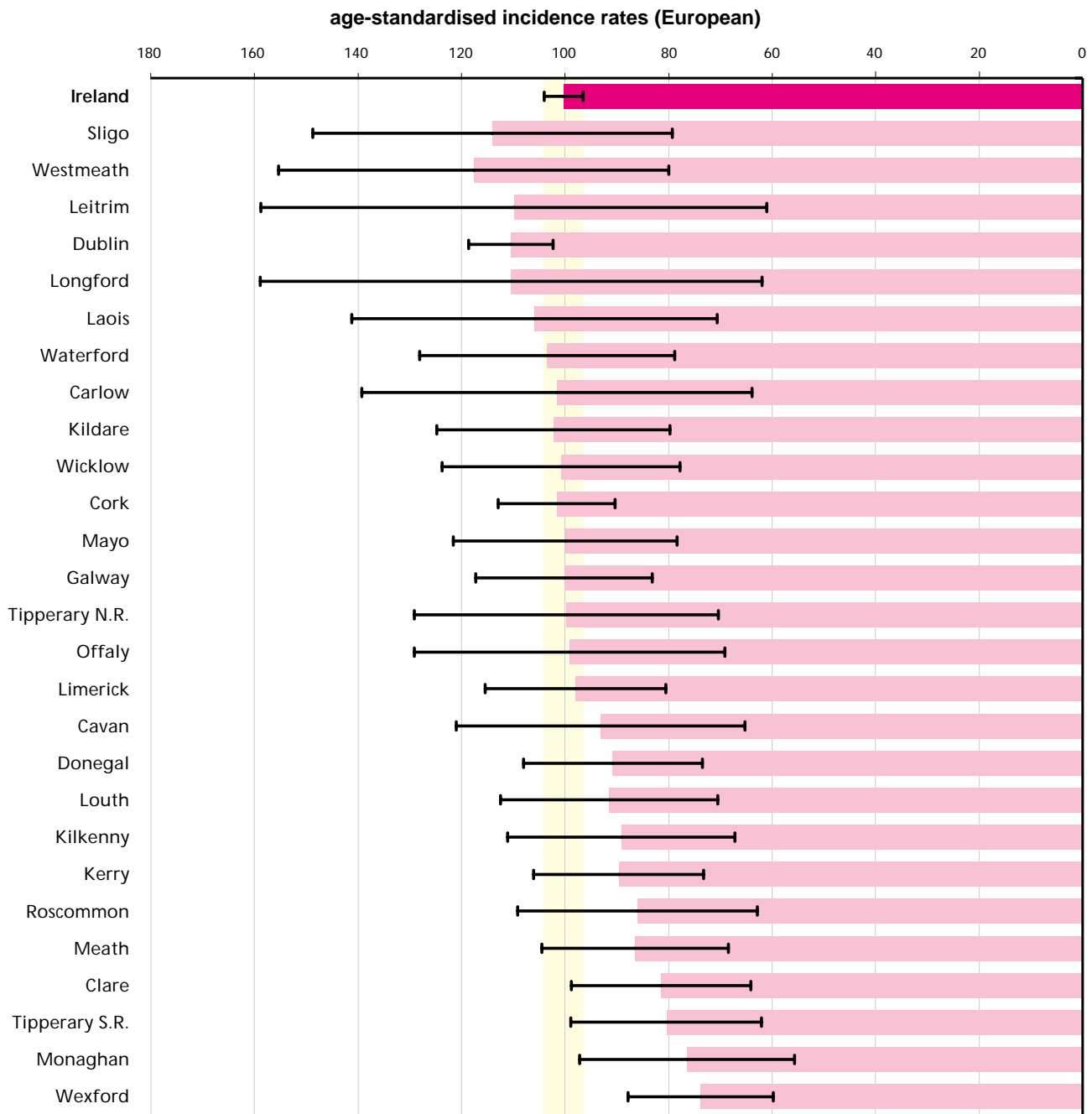
Table 10.4. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: breast cancer (invasive cases only)

	MALES		FEMALES	
	age-standardised rate	rank	age-standardised rate	rank
Netherlands	0.7	18	112	1
Switzerland	0.7	15	111	2
Italy	1.4	3	110	4
Denmark	0.8	14	111	3
Scotland	0.7	16	108	5
N. Ireland	1.4	3	104	7
Sweden	0.6	20	104	6
Iceland	1.2	7	103	8
England	0.7	16	102	9
France	1.4	5	100	11
Finland	0.6	19	100	10
Ireland (1994-1997)	0.9	9	95	12
Germany	0.8	11	94	13
Spain	1.7	1	92	14
Malta	1.3	6	89	15
Norway	0.5	23	88	16
Austria	0.8	12	87	17
Czech Republic	0.9	10	74	18
Slovenia	1.5	2	68	19
Bulgaria	0.8	13	60	20
Slovakia	0.5	22	56	21
Estonia	0.6	21	54	22
Poland	1.0	8	47	23

NATIONAL

Figures for men are given for information, and are too few for inter-county comparison (Figure 10.1). Female breast cancer rates ranged from 117% of expected in Westmeath to 74% of expected in Wexford. Only in Wexford was the rate significantly different from expected.

Figure 10.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: breast cancer



■ National Average

— 95% confidence limits (see Appendix 1.11)

10.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Table 10.5. Most valid basis of diagnosis of cancer

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
tissue diagnosis	1675	96.8%
histology of primary	1618	93.5%
histology of other site	17	1.0%
cytology	40	2.3%
clinical diagnosis	56	3.2%
clinical	39	2.3%
radiology	12	0.7%
other/not known	5	0.3%
all cancers	1731	

Almost all cancers (97%) had tissue verification of the diagnosis (Table 10.5). Cytology was the sole basis of diagnosis in 2.3% of cases.

Almost $\frac{2}{3}$ of cases (62%) were infiltrating duct carcinoma (Table 10.6). This proportion seems to be increasing. In situ duct carcinoma (DCIS) continues to make up about 3% of all cases. Other in situ carcinomas made up a further 2% of cases.

Table 10.6. Morphology

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
infiltrating duct carcinoma	8500/3	1081	62.4%	948	57.0%
lobular carcinoma, NOS	8520/3	175	10.1%	150	9.0%
carcinoma, NOS	8010/3	88	5.1%	111	6.7%
malignant neoplasm	8000/3	60	3.5%	75	4.5%
adenocarcinoma, NOS	8140/3	43	2.5%	50	3.0%
intraductal carcinoma, noninfiltrating, NOS	8500/2	50	2.9%	50	3.0%
infiltrating ductular carcinoma	8521/3	23	1.3%	42	2.5%
infiltrating duct and lobular carcinoma	8522/3	35	2.0%	40	2.4%
comedocarcinoma, NOS	8501/3	20	1.2%	29	1.7%
mucous adenocarcinoma	8480/3	26	1.5%	27	1.6%
tubular adenocarcinoma	8211/3	24	1.4%	21	1.2%
lobular carcinoma in situ	8520/2	18	1.0%	12	0.7%
scirrhous adenocarcinoma	8141/3	13	0.8%	10	0.6%
Paget's disease and infiltrating duct carcinoma of breast	8541/3	7	0.4%	10	0.6%
undifferentiated carcinoma, NOS	8020/3	0	0.0%	9	0.5%
medullary carcinoma, NOS	8510/3	8	0.5%	9	0.5%
all other types		60	3.5%	73	4.4%
Behaviour					
uncertain		10	0.6%	6	0.3%
in situ		84	4.9%	79	4.7%
invasive		1637	94.6%	1578	94.9%
all cancers		1731		1663	100.0%

10.6. STAGE

Table 10.7. Summary stage

stage	1997		1994-1997 AVERAGE	
	cases	% of total	cases	% of total
0	84	4.9%	79	4.7%
I	165	9.5%	168	10.2%
IIA	242	14.0%	234	14.1%
IIB	170	9.8%	172	10.4%
IIIA	57	3.3%	56	3.4%
IIIB	46	2.7%	40	2.4%
IV	106	6.1%	116	7.0%
not applicable	10	0.6%	6	0.3%
not staged	851	49.2%	793	47.6%
all cancers	1731		1663	

Summary stage data was available on a little over half of the cases (Table 10.7). Of those staged, the largest numbers were at stage 2a (14%) and 2b (10%).

Table 10.9. TNM stage

T stage	N stage	M0		M1		NOT STAGED	
		cases	% of total	cases	% of total	cases	% of total
Tis/Ta	N0	84	4.9%	0	0.0%	0	0.0%
T1	N0	165	9.5%	2	0.1%	124	7.2%
	N1	77	4.4%	2	0.1%	57	3.3%
	N2	2	0.1%	1	0.1%	3	0.2%
	N3	4	0.2%	0	0.0%	2	0.1%
	not staged	18	1.0%	5	0.3%	47	2.7%
T2	N0	165	9.5%	2	0.1%	115	6.6%
	N1	148	8.5%	8	0.5%	131	7.6%
	N2	8	0.5%	1	0.1%	12	0.7%
	N3	8	0.5%	2	0.1%	4	0.2%
	not staged	23	1.3%	5	0.3%	53	3.1%
T3	N0	22	1.3%	1	0.1%	19	1.1%
	N1	47	2.7%	4	0.2%	37	2.1%
	N2	0	0.0%	5	0.3%	3	0.2%
	N3	1	0.1%	0	0.0%	0	0.0%
	not staged	8	0.5%	3	0.2%	16	0.9%
T4	N0	9	0.5%	4	0.2%	14	0.8%
	N1	21	1.2%	14	0.8%	26	1.5%
	N2	1	0.1%	13	0.8%	11	0.6%
	N3	2	0.1%	1	0.1%	2	0.1%
	not staged	4	0.2%	13	0.8%	19	1.1%
not staged	N0	6	0.3%	3	0.2%	6	0.3%
	N1	6	0.3%	2	0.1%	10	0.6%
	N2	0	0.0%	0	0.0%	3	0.2%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	4	0.2%	15	0.9%	68	3.9%
all T	all N	833	48.1%	106	6.1%	782	45.2%
not applicable		10					
all cancers		1731					

Table 10.8. Extent of disease

EXTENT OF DISEASE	CASES	% OF TOTAL
local	451	26.1%
regional	382	22.1%
distant	106	6.1%
not applicable	10	0.6%
not known	782	45.2%
all cancers	1731	

Data on extent of disease were available for 55% of cases (Table 10.8). Almost half of these were local.

The most frequent TNM stages were T1 N0 M0 and T2 N0 M0, both 9.5% of the total (Table 10.9). Most of the missing stage information was for metastases, as 45% of cases had no information on M stage, either clinical or pathological, while T stage was missing in only 7% of cases and N stage in 17%. Failure to record the metastatic status of the tumour in patients' notes is therefore leading to the loss of much valuable staging data.

10.7. TREATMENT

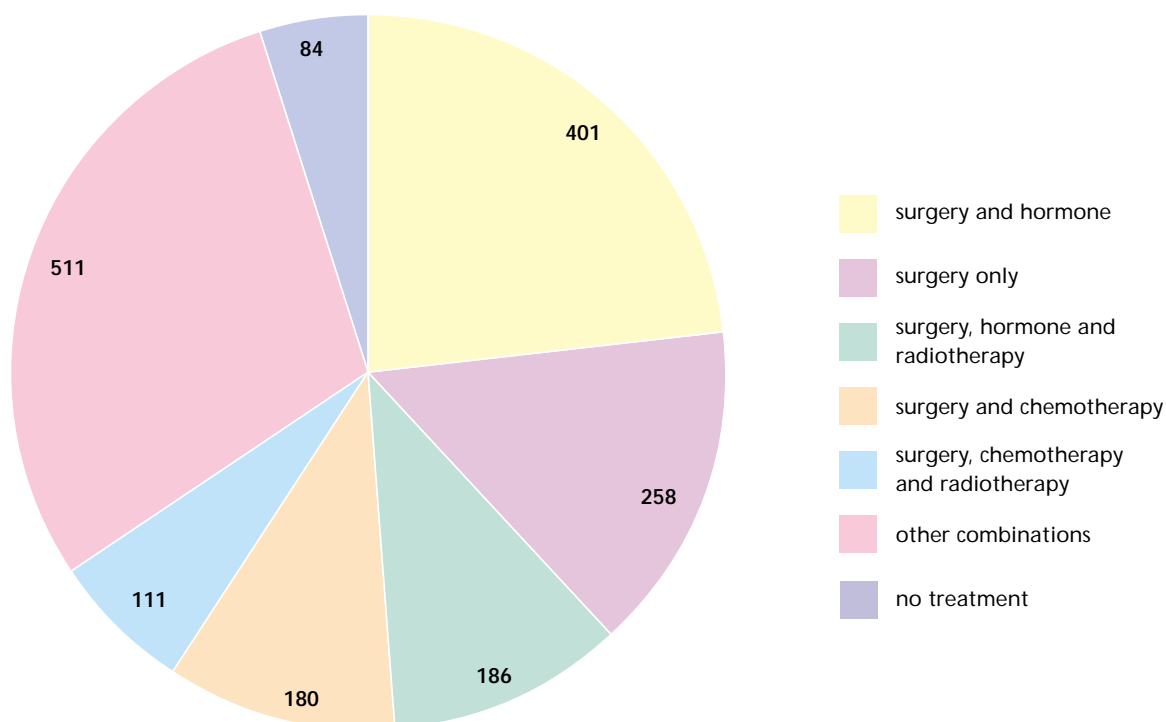
Most cancers (84%) were surgically removed and this removal was usually accompanied by adjuvant treatment (Table 10.10). The commonest combinations were of surgery with hormone therapy (23%), with hormone and radiotherapy (11%) and with chemotherapy (10%) (Figure 10.2).

Table 10.10. Treatment summary

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	1450	83.8%	82.4%	81.7%	83.1%
chemotherapy	524	30.3%	29.0%	76.1%	71.1%
hormone	907	52.4%	54.3%		
radiotherapy	544	31.4%	33.4%	31.4%	31.6%
other treatment	107	6.2%	6.9%	6.2%	23.7%
all cases treated	1647	95.1%	95.3%	95.1%	96.5%
no treatment	84	4.9%	4.7%	4.9%	3.5%
all cases	1731	1731	1706	1604	1609

Figure 10.2. Frequent treatment combinations

Note: numbers indicated refer to the number of cases treated



10.8. SURVIVAL

Overall survival at five years was 56%±27% for men and 78%±2% for women (Table 10.11). Five-year survival for stage I female cases was 97%±4%, while survival for stage IV cases was 18%±7% (Figure 10.3).

Table 10.11. One to five year relative survival (\pm 95% confidence limits) for cancers diagnosed from 1994 to 1997

sex	stage	cases	YEARS FROM DIAGNOSIS					
			1		3		5	
			survival	95% confidence limits (\pm)	survival	95% confidence limits (\pm)	survival	95% confidence limits (\pm)
males	0	1	1.03	0.00	1.10	0.00	1.20	0.00
	I	7	0.89	0.27	0.72	0.40	0.78	0.40
	II	12	0.77	0.25	0.59	0.32	0.64	0.32
	III	5	0.83	0.36	0.90	0.37		
	IV	4	0.52	0.51	0.28	0.44		
	X	21	0.97	0.13	0.70	0.26	0.76	0.26
	all	50	0.86	0.11	0.66	0.16	0.56	0.27
females	0	294	1.00	0.01	1.01	0.02	1.00	0.06
	I	637	1.00	0.01	0.97	0.02	0.97	0.04
	II	1567	0.98	0.01	0.90	0.02	0.85	0.03
	III	367	0.95	0.03	0.72	0.06	0.60	0.09
	IV	444	0.58	0.05	0.33	0.05	0.18	0.07
	X	3029	0.94	0.01	0.85	0.02	0.79	0.03
	all	6338	0.93	0.01	0.84	0.01	0.78	0.02

Figure 10.3. Relative survival by stage for cases diagnosed from 1994 to 1997

