

## 12.1. INTRODUCTION AND SUMMARY

The registration and classification of cancer of the cervix is more difficult than that of other cancers, as the majority of cancers of the cervix are very early lesions detected because of screening. Opinions differ on whether these lesions are cancerous or pre-cancerous, and on their likelihood of progressing, without treatment, to invasive cancer. The National Cancer Registry's policy is to register all cancers of the cervix, including CIN III, regardless of type, if they have been verified by histology. However, the lesions registered as "in situ" below would not be registered as "cancer" by the majority of cancer registries and are not included in international comparisons.

Invasive cancers of the cervix make up only a small proportion of female cancers (1.8%) (Table 12.1). Mortality for invasive cancers is about 50%. There has been a small and statistically insignificant increase in all cancers (including in situ) since 1994.

**Table 12.1. Summary of incidence and mortality statistics: cervical cancer**

	INCIDENT CASES	DEATHS
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C53)</b>		
1997 cases	965	82
% of all cancers (female)	8.8%	2.3%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>		
crude rate	52.5	4.5
World age-standardised rate	49.1	3.4
European age-standardised rate	53.1	4.6
cumulative risk (0-74)	3.8%	0.4%
mortality/incidence ratio	0.085	
<b>Time trends (all cancers)</b>		
1994 cases	902	60
1995 cases	826	72
1996 cases	1017	82
1997 cases	965	82
1994-1997 average	928	74
annual % change 1994-97	+2.5%	+9.1%
95% confidence limits of trend	(-5.5%; 11.2%)	(0.9%; 17.9%)
<b>Invasive cancers only (ICD-10 C53)</b>		
1997 cases	159	82
% of all invasive cancers (female)	1.8%	2.3%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>		
crude rate	8.7	4.5
World age-standardised rate	7.6	3.4
European age-standardised rate	9.5	4.6
cumulative risk (0-74)	0.8%	0.4%
mortality/incidence ratio	0.516	

## 12.2. AGE AND SEX PROFILE

*Table 12.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for cervical cancers, 1994 to 1997*

	ALL CASES (INCLUDING IN SITU)			INVASIVE CASES		
	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	5	3	1.4	0	0	0.0
20-24	73	52	6.8	1	1	0.5
25-29	179	138	8.2	4	3	1.1
30-34	199	150	7.1	18	14	3.5
35-39	168	130	4.9	26	20	4.1
40-44	117	98	2.8	32	27	4.1
45-49	81	74	1.6	24	22	2.4
50-54	36	40	0.6	16	18	1.4
55-59	22	29	0.3	12	16	0.9
60-64	15	22	0.2	10	14	0.7
65-69	12	18	0.1	10	15	0.5
70-74	10	16	0.1	9	15	0.4
75-79	7	13	0.1	5	10	0.2
80-84	3	10	0.0	3	10	0.2
>85	2	8	0.0	2	7	0.1
<b>all ages</b>	<b>928</b>	<b>50.9</b>	<b>1.0</b>	<b>173</b>	<b>9.5</b>	<b>1.0</b>

Including in situ types, cervical cancers were most common in women aged 30 to 34 and invasive cancers in those aged 40 to 44 (Table 12.2). The highest relative age-specific rate for all cancers was in the 25 to 29 year age group while the highest rate for invasive cancers was in the 40 to 44 year age group.

## 12.3. SUBSITES

A site other than cervix, NOS, was given for only four cancers.

## 12.4. GEOGRAPHICAL DISTRIBUTION

**INTERNATIONAL**

Invasive cervical cancer in Ireland was relatively uncommon, ranking 15th of 23 and quite close to the incidence in England and Northern Ireland (Table 12.3).

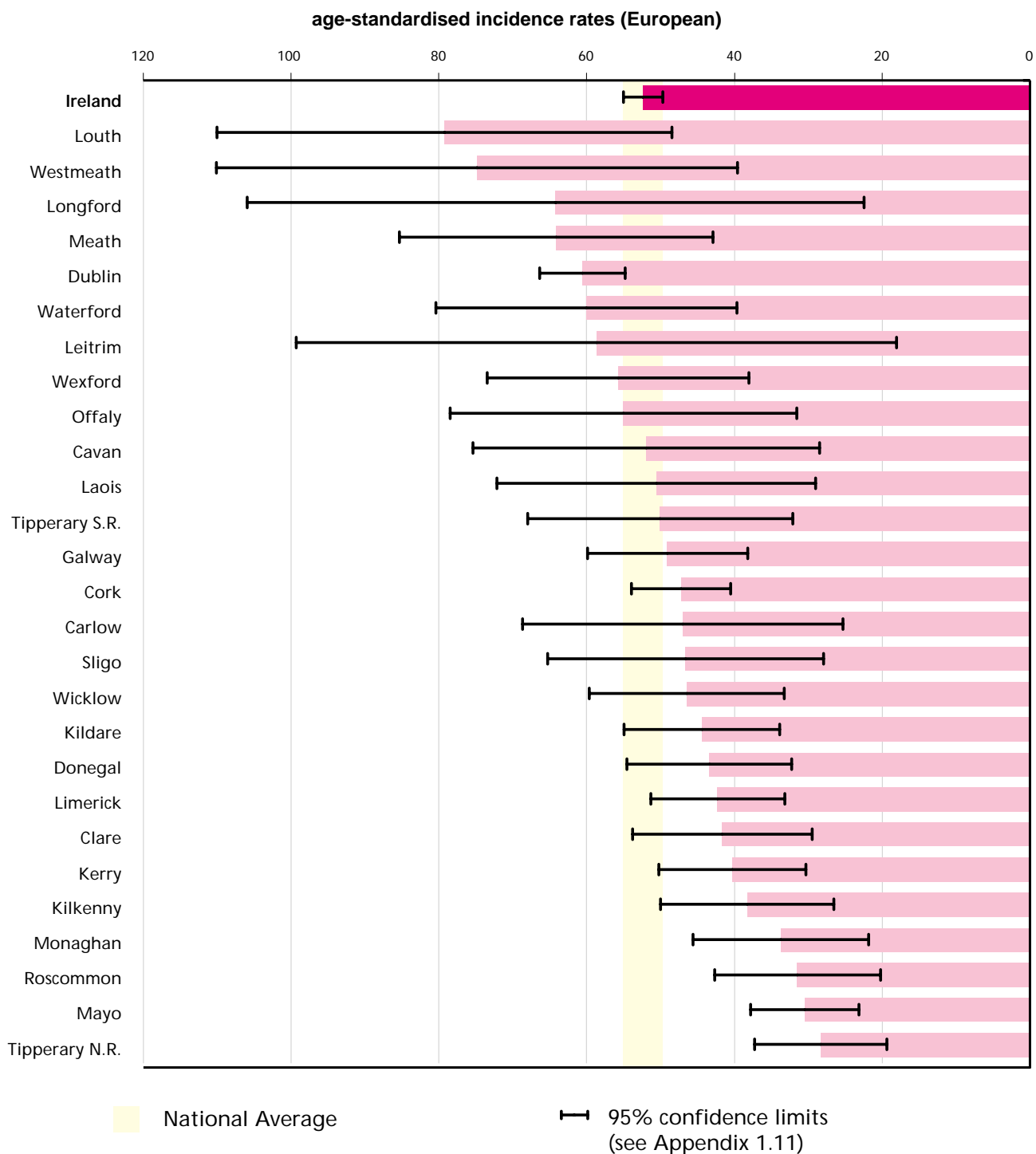
**Table 12.3. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: cervical cancer (invasive cases only)**

	AGE-STANDARDISED RATE	RANK
Slovakia	22.1	1
Czech Republic	20.8	2
Slovenia	19.7	3
Estonia	18.8	4
Poland	18.4	5
Bulgaria	18.1	6
Denmark	17.5	7
Norway	15.5	8
Germany	12.8	9
Austria	12.8	10
France	11.9	11
Scotland	11.8	12
Italy	11.3	13
Spain	10.6	14
<b>Ireland (1994-1997)</b>	<b>10.4</b>	<b>15</b>
England	10.2	16
N. Ireland	9.7	17
Sweden	9.4	18
Netherlands	9.0	19
Malta	8.9	20
Iceland	8.9	21
Finland	5.8	22
Switzerland	5.3	23

**NATIONAL**

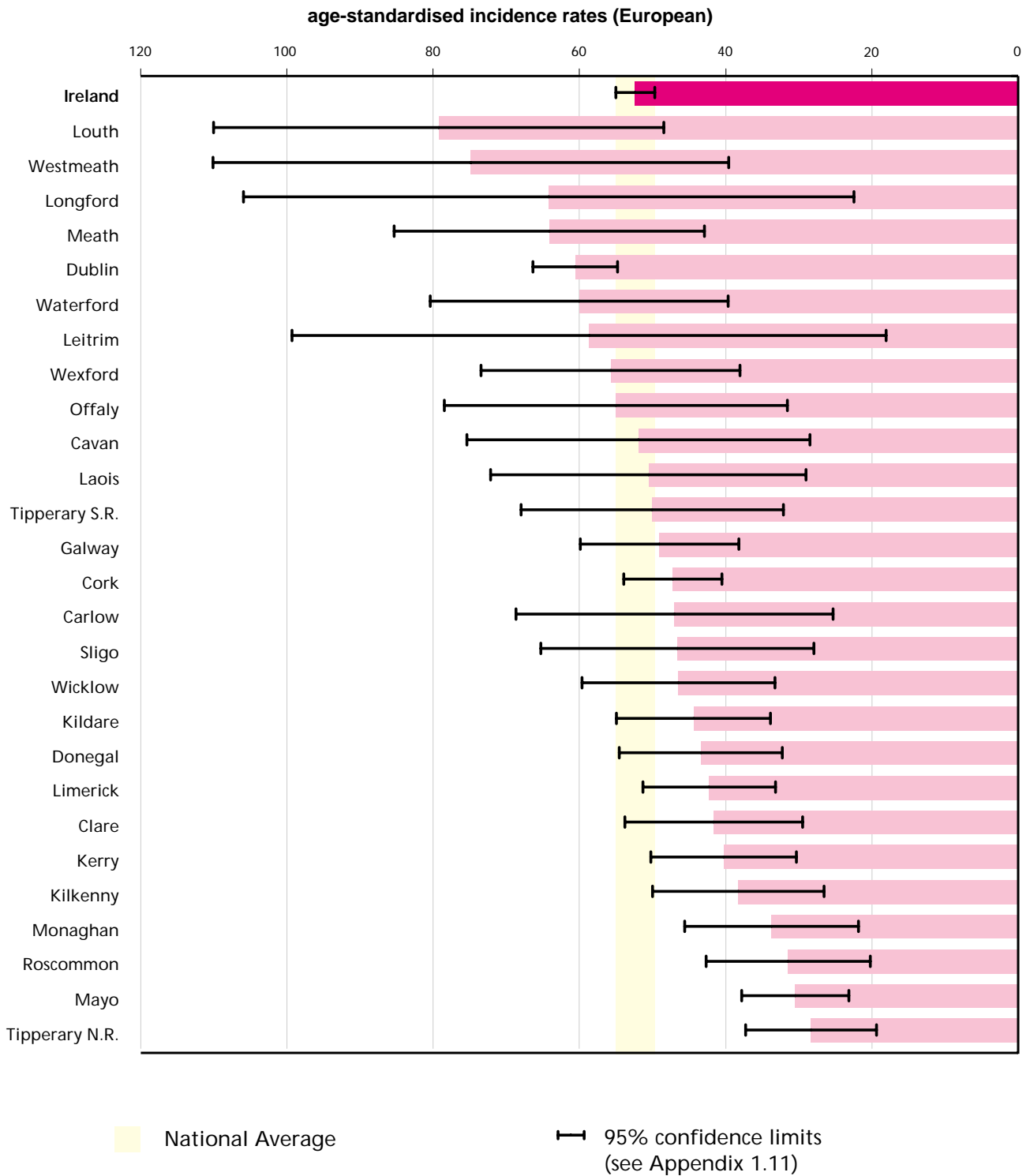
The incidence of all cervical cancers (including in situ) varied from 151% of expected in Louth to 54% in Tipperary North (Figure 12.1). The incidence rate was significantly above expected in Dublin. Almost all of the cancers in the Table 12.4 are in situ, and the main determining factor in the incidence of in situ cervical cancer is the level of cervical screening, incidence being high in areas where screening is active.

**Figure 12.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: cancer of the uterine cervix**



The numbers of invasive cancers were too small to allow for any meaningful comparison between counties (Figure 12.2).

**Figure 12.2. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: invasive cases only**



## 12.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

All in situ cases, and all but 2 invasive cases were diagnosed by histology (Table 12.4).

**Table 12.4. Most valid basis of diagnosis of cancer**

BASIS OF DIAGNOSIS	CASES	% OF TOTAL	CASES	% OF TOTAL
	<b>in situ cases</b>		<b>invasive cases</b>	
<b>tissue diagnosis</b>	<b>806</b>		<b>157</b>	<b>98.7%</b>
histology of primary	805	99.9%	153	96.2%
histology of other site	1	0.1%	4	2.5%
<b>clinical diagnosis</b>	<b>0</b>	<b>0.0%</b>	<b>2</b>	<b>1.3%</b>
clinical	0	0.0%	2	1.3%
<b>all cancers</b>	<b>806</b>		<b>159</b>	

Most of the cancers were described as CIN III (Table 12.5). The next largest category was invasive squamous cell carcinoma.

**Table 12.5. Morphology**

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
cervical intraepithelial neoplasia, grade III	8077/2	788	81.7%	730	78.7%
squamous cell carcinoma, NOS	8070/3	96	9.9%	98	10.6%
squamous cell carcinoma large cell, keratinizing	8071/3	9	0.9%	16	1.7%
adenocarcinoma, NOS	8140/3	12	1.2%	14	1.5%
squamous cell carcinoma in situ, NOS	8070/2	12	1.2%	13	1.4%
squamous cell carcinoma microinvasive	8076/3	7	0.7%	10	1.1%
carcinoma in situ, NOS	8010/2	4	0.4%	9	0.9%
squamous cell carcinoma nonkeratinizing, NOS	8072/3	10	1.0%	8	0.9%
adenosquamous carcinoma	8560/3	1	0.1%	6	0.7%
carcinoma, NOS	8010/3	5	0.5%	5	0.5%
papillary adenocarcinoma, NOS	8260/3	8	0.8%	4	0.5%
adenocarcinoma in situ, NOS	8140/2	2	0.2%	3	0.3%
malignant neoplasm	8000/3	3	0.3%	3	0.3%
mucin-secreting adenocarcinoma	8481/3	1	0.1%	3	0.3%
clear cell adenocarcinoma, NOS	8310/3	1	0.1%	2	0.2%
mucous adenocarcinoma	8480/3	2	0.2%	1	0.1%
all other types		4	0.4%	4	0.5%
<b>Behaviour</b>					
in situ		806	83.5%	754	81.3%
invasive		159	16.5%	173	18.6%
<b>all cancers</b>		<b>965</b>		<b>928</b>	<b>100.0%</b>

## 12.6. STAGE

Table 12.6. Summary stage

	1997		1994-1997 AVERAGE	
	cases	% of total	cases	% of total
0	806	83.5%	754	81.3%
IA	19	2.0%	20	2.1%
IB	10	1.0%	17	1.8%
IIA	5	0.5%	7	0.7%
IIB	3	0.3%	2	0.2%
IIIA	0	0.0%	1	0.1%
IIIB	4	0.4%	10	1.1%
IVA	0	0.0%	0	0.0%
IVB	9	0.9%	8	0.8%
not staged	109	11.3%	108	11.6%
not applicable	0	0.0%	1	0.1%

Most cases were in situ. Of the staged invasive cancers, most were at stage 1A or 1B (Table 12.6).

Apart from the Tis cancers, the commonest TNM stage was T1 N0 M0 with 29 cases (3%) (Table 12.8).

Table 12.8. TNM stage

T stage	N stage	M0		M1		NOT STAGED	
		cases	% of total	cases	% of total	cases	% of total
Tis/Ta	N0	806	83.5%	0	0.0%	0	0.0%
T1	N0	29	3.0%	1	0.1%	12	1.2%
	N1	1	0.1%	0	0.0%	12	1.2%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	0	0.0%	1	0.1%	15	1.6%
T2	N0	8	0.8%	0	0.0%	4	0.4%
	N1	1	0.1%	0	0.0%	3	0.3%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	0	0.0%	1	0.1%	13	1.3%
T3	N0	1	0.1%	0	0.0%	1	0.1%
	N1	1	0.1%	2	0.2%	5	0.5%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	3	0.3%	2	0.2%	12	1.2%
T4	N0	0	0.0%	0	0.0%	0	0.0%
	N1	0	0.0%	1	0.1%	2	0.2%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	1	0.1%	1	0.1%	3	0.3%
not staged	N0	1	0.1%	0	0.0%	1	0.1%
	N1	0	0.0%	0	0.0%	0	0.0%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	1	0.1%	0	0.0%	20	2.1%
all T	all N	853	88.4%	9	0.9%	103	10.7%
<b>all cancers</b>		<b>965</b>					

Table 12.7. Extent of disease

EXTENT OF DISEASE	CASES	% OF TOTAL
local	845	87.6%
regional	8	0.8%
distant	9	0.9%
not known	103	10.7%
<b>all</b>	<b>965</b>	

Almost all cancers were local (Table 12.7).

## 12.7. TREATMENT

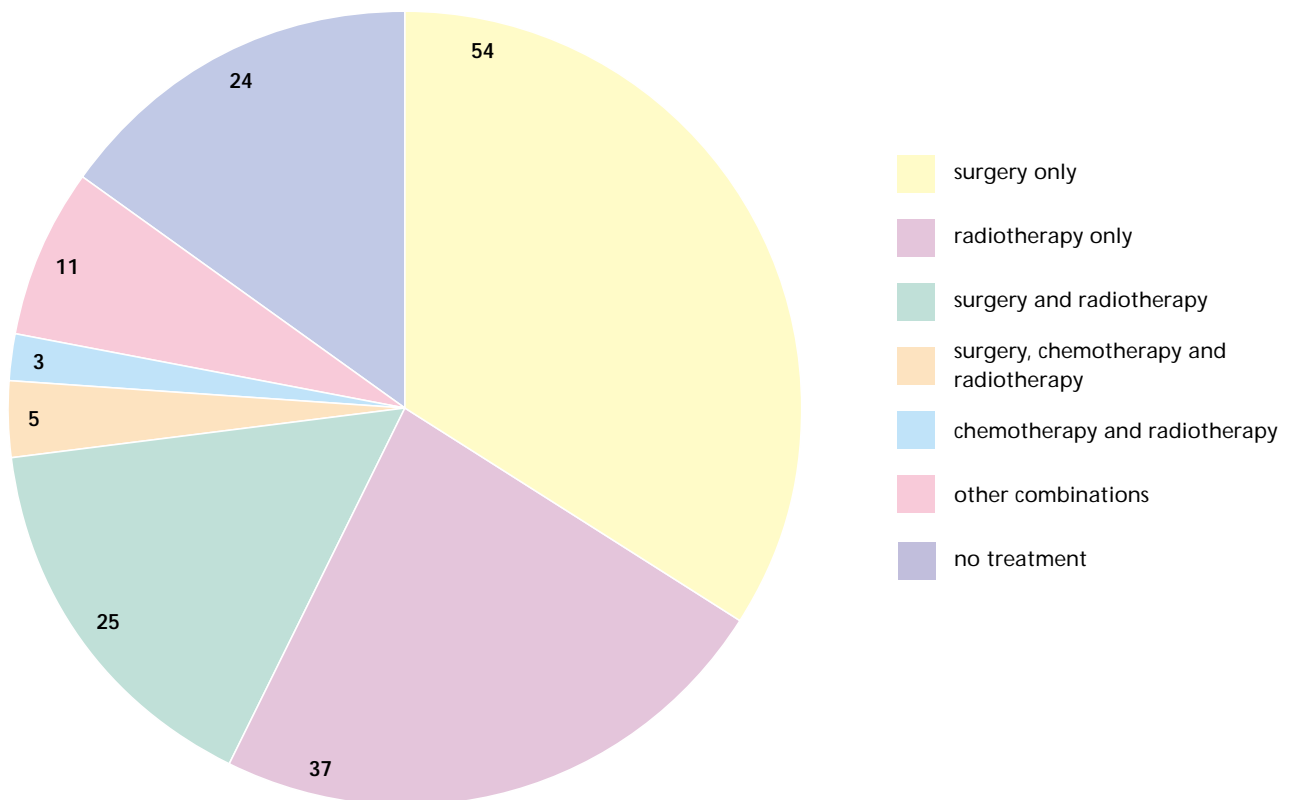
Invasive cervical cancer is treated mainly by surgery (55%) (Table 12.9). Radiotherapy is quite commonly used in combination with surgery, but appears to be declining slightly in frequency (Figure 12.3).

**Table 12.9. Treatment summary (invasive cases only)**

	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	88	55.3%	61.2%	60.0%	50.3%
chemotherapy	11	6.9%	1.9%	1.9%	1.8%
hormone	1	0.6%	0.5%		
radiotherapy	76	47.8%	40.3%	47.8%	52.6%
other treatment	8	5.0%	6.3%	5.0%	40.4%
all cases treated	135	84.9%	85.9%	84.9%	91.2%
no treatment	24	15.1%	14.1%	15.1%	8.8%
<b>all cases</b>	<b>159</b>	<b>159</b>	<b>206</b>	<b>155</b>	<b>171</b>

**Figure 12.3. Frequent treatment combinations**

Note: numbers indicated refer to the number of cases treated



## 12.8. SURVIVAL

Overall survival for all cervical cancer at five years was  $93\% \pm 1\%$  and for invasive (stages I to IV) as  $62\% \pm 5\%$  (Table 12.10). Five-year survival for stage I cases was  $90\% \pm 15\%$  while survival for stage IV cases was  $16\% \pm 14\%$  (Figure 12.4).

**Table 12.10. One to five year relative survival ( $\pm$  95% confidence limits) for cancers diagnosed from 1994 to 1997**

stage	cases	YEARS SINCE DIAGNOSIS					
		1		3		5	
		survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )
0	2984	1.00	0.00	1.00	0.00	1.00	0.01
I	143	0.98	0.02	0.97	0.03	0.90	0.15
II	32	0.79	0.14	0.61	0.19	0.46	0.29
III	45	0.89	0.09	0.60	0.17	0.60	0.17
IV	31	0.49	0.18	0.16	0.14	0.16	0.14
X	417	0.81	0.04	0.60	0.06	0.59	0.07
<b>all</b>	<b>3652</b>	<b>0.97</b>	<b>0.01</b>	<b>0.94</b>	<b>0.01</b>	<b>0.93</b>	<b>0.01</b>

**Figure 12.4. Relative survival by stage for invasive cases diagnosed from 1994 to 1997**

