14. Cancer of the Cervix Uteri

ICD-9 180

KEY FACTS

- On average 78 cases of invasive cervical cancer were registered per year.
- Half of cases occurred under 49 years of age.
- 2% of female cancers.
- Higher than expected numbers in the Eastern Board.

These figures refer to invasive and microinvasive cases of cervical cancer but not CIN I, II, III. Levels of CIN III are indicated separately at the foot of Table 33. On average, 78 cases of invasive cervical cancer were registered each year 1993-95. This accounted for almost 2% of all cancer cases in females. There were 2.5 times more cases than deaths for the period 1993-95. The Registry was also notified of an average of 419 CIN III, non-invasive lesions per year 1993-95. It was the twelfth most commonly diagnosed cancer in females.

Table 33 Summary Statistics

Year	1993	1994	1995
INCIDENCE			
Incident Cases	83	75	77
Crude Rate (per 100,000)	9.94	8.93	9.13
Cumulative Risk (0-74) (%)	0.76	0.70	0.80
WASR (per 100,000)	7.97	7.35	7.79
EASR (per 100,000)	10.35	9.11	9.83
% of All Cancers	1.88	1.74	1.79
DATA QUALITY			
Mortality : Incidence Ratio	0.41	0.49	0.26
% Death Certificate Only	4.82	2.67	0.00
% Microscopically Verified	95.18	97.3	100.0
MORTALITY			
Number of Deaths	34	37	20
Crude Rate (per 100,000)	4.07	4.41	2.37
Cumulative Risk (0-74) (%)	0.32	0.30	0.20
WASR (per 100,000)	2.87	3.18	1.79
EASR (per 100,000)	3.88	4.50	2.39
% of All Cancer Deaths	1.95	2.10	1.21
NON INVASIVE CASES (see Annex for further details)			
Non Invasive CIN III lesions	416	433	409

WASR = Rates standardised for age to the World standard population
EASR = Rates standardised for age to the European standard population

Age Profile

Half of the cases of cervical cancer were under 49 years of age - see Figure 25.

Figure 25 Age Distribution of New Cases 1993-95, Cancer of the Cervix

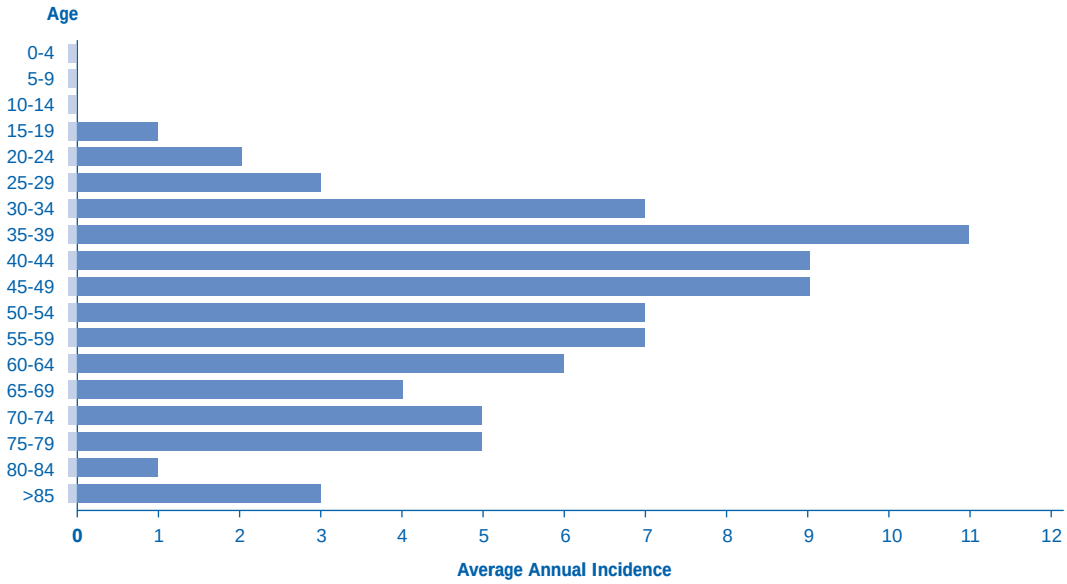
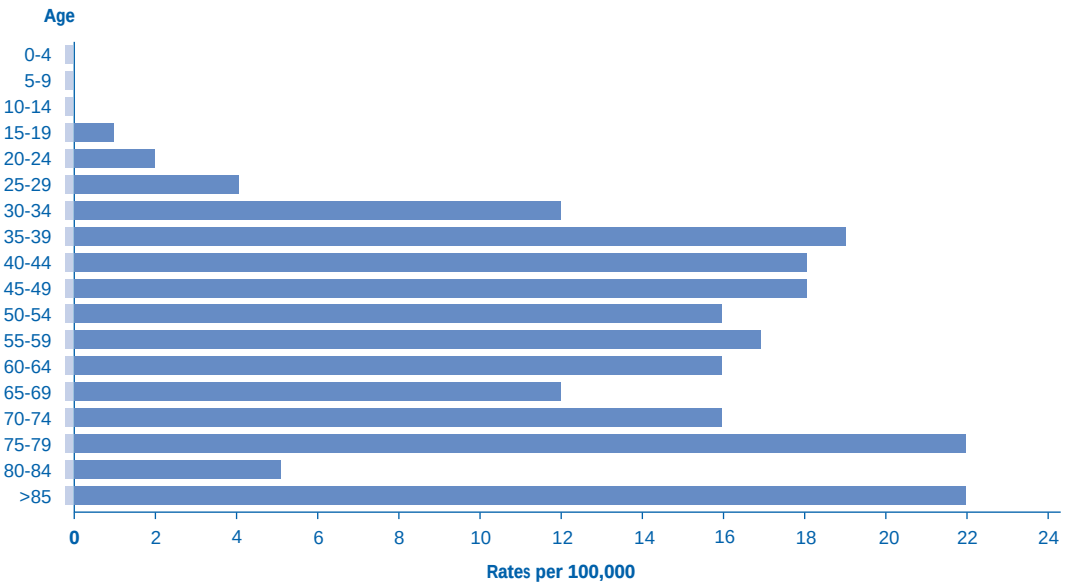


Figure 26 Average Annual Age Specific Rates (per 100,000), Cancer of the Cervix



Morphology & Stage

Two thirds of invasive cancers were squamous cell with about 20% adenocarcinomas.

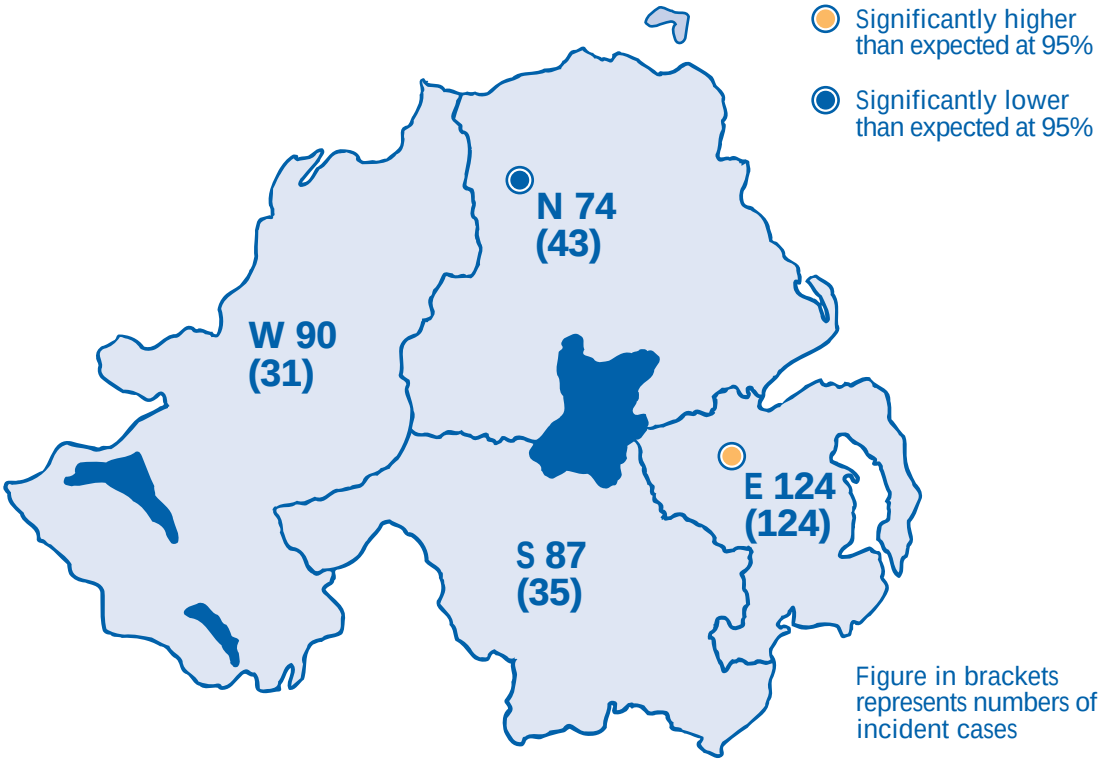
A quarter of invasive tumours were classed as microinvasive however 40% of invasive tumours had spread beyond the uterus at diagnosis (1995 data) - see Annex for fuller details.

Geographical Distribution

Variation across Health Boards/District Councils in the observed number of cases due to differences in the age structure of the underlying population has been accounted for by using Standardised Incidence Ratios (SIRs) - see Appendix ii. Values above or below 100 indicate an excess/deficit over what would be expected if that area experienced the same level of incidence as Northern Ireland as a whole.

Standardised Incidence Ratios for cervical cancer revealed higher than expected numbers for the Eastern Board area while the Northern Board had lower than expected numbers - see Map 8.

Map 8. All Age Standardised Incidence Ratios (SIRs) by Health Board 1993-95, Cancer of the Cervix



Data Quality

Data quality was good with a falling level of Death Certificate Only (DCO) to 0% and an improving proportion of Microscopically Verified cases rising to 100%.

Comparison with other Countries

Table 34 Comparative Numbers and Rates for Britain and Ireland 1995, Cancer of the Cervix

Country	Cases	EASR (per 100,000)
Scotland	338	11.60
England & Wales	3050	10.40
Republic of Ireland	149	8.96
Northern Ireland	77	9.83

Standardised rates for cancer of the cervix were lower than Scotland, England & Wales but higher than the Republic of Ireland. The pattern was similar to that for the standardised mortality ratios (age 30-74 1989-1993) (ref: 1).

Comment

The major risk factor for development of pre-invasive or invasive carcinoma of the cervix is human papilloma virus infection. This outweighs other known risk factors such as a high parity (number of children), number of sexual partners, smoking history and socio-economic status (cervical cancer is more common in lower socio-economic groups). The vast majority (over 90%) of cases of cervical

cancer can be detected early by the use of the PAP smear which allows an examination of cells from the cervix.

In Northern Ireland there is a population based screening programme where females aged 20 to 64 are invited to have a cervical smear every five years. This was introduced in 1988 and replaced the community cervical screening programme which had begun in 1965.

Information from a regional audit project indicates that half of these cancers occur in the 30% of females who have never had a smear.

For Health Gain

- All eligible females should be encouraged to attend for a cervical smear.
- Measures to reduce smoking including special programmes targeted for females should be promoted.
- The organisation of services should be such as to ensure that those with the disease have as good an outcome as possible.
- Participation in clinical trials which can advise on the best outcomes should be enhanced.
- The full range of palliative care services should be available for those with established disease.

Recommendation

Pathologically diagnosed CIN III (severe dysplasia) tumours should be consistently coded as, SNOMED code M80772.

Cancer of the Cervix

Table 35 Morphology of Invasive and *In Situ* Cancer of the Cervix

MORPHOLOGY DESCRIPTION	SNOMED		YEAR	
INVASIVE CANCERS	**Code**	**1993**	**1994**	**1995**
Microinvasive squamous carcinoma	M80763	15 (18.0%)	11 (14.7%)	19 (24.6%)
Squamous cell carcinoma	M80703	40 (48.2%)	36 (48.0%)	38 (49.4%)
Adenocarcinoma, NOS*	M81403	13 (15.6%)	5 (6.7%)	14 (18.2%)
Adenosquamous carcinoma	M85603	2 (2.4%)	7 (9.3%)	4 (5.2%)
Carcinoma, NOS	M80103	6 (7.2%)	9 (12.0%)	0 (0.0%)
Malignant tumour, NOS	M80003	3 (3.6%)	4 (5.3%)	2 (2.6%)
Carcinosarcoma	M89803	0 (0.0%)	1 (1.3%)	0 (0.0%)
Non microscopically verified (DCO)		4 (4.8%)	2 (2.7%)	0 (0.0%)
TOTAL INVASIVE		83	75	77
IN SITU CANCERS (Pathologically verified only)				
Severe Dysplasia (CIN III)	M74008	359 (86.3%)	420 (97.0%)	397 (97.1%)
Carcinoma *in situ*, NOS	M80102	54 (13.0%)	11 (2.5%)	7 (1.7%)
Adenocarcinoma *in situ*	M81402	3 (0.7%)	1 (0.2%)	5 (1.2%)
Squamous cell carcinoma *in situ* with questionable stromal invasion	M80762	0 (0%)	1 (0.2%)	0 (0%)
TOTAL *IN SITU* TUMOURS		416	433	409

* NOS = not otherwise specified

Comment

The commonest types of invasive cervical cancer were the squamous cell carcinomas accounting for an average of 67% when adding together the micro and fully invasive states. This was slightly lower than might be expected as normally squamous cell carcinomas can make up as much as 80% of the invasive cancers, but compared well with the 68% found in the Republic of Ireland.

The number of adenocarcinomas and adenosquamous carcinomas were between 18.0% and 23.4 % of the total invasive cancers. These are more difficult to detect using the standard smear test. The relatively high numbers may indicate a shift towards the adenocarcinomas which has already been noted in Northern Ireland (ref: 16). However, the numbers are small and a longer time period may be required to be confident of a trend. There were also an appreciable number of tumours described as “carcinoma, NOS” and “malignant tumour” which could also affect the ratio of squamous cell / adenocarcinoma cases.

The description of *in situ* cancers as “severe dysplasia” is by far the most common description the Registry obtained (93.5% of all cases) from pathology reports.

Table 36 Cancer of the Cervix, staging by year of diagnosis

Stage of Tumour	Nos. (% of Total) By Year		
	1993	1994	1995*
is Non invasive *in situ*	416 (83.4%)	433 (85.2%)	409 (84.2%)
1a Microinvasive	15 (3.0%)	11 (2.2%)	19 (4.0%)
1 Tumour confined to uterus	12 (2.4%)	26 (5.1%)	27 (5.6%)
2 Tumour invades beyond uterus	2 (0.4%)	6 (1.2%)	22 (4.5%)
3 Tumour extends to pelvic wall	2 (0.4%)	1 (0.2%)	5 (1.0%)
4 Tumour invades other organs	3 (0.6%)	0 (0%)	4 (0.8%)
X Tumour could not be assessed	45 (9.0%)	29 (5.7%)	0 (0%)
X Tumour not pathologically assessed (DCO)	4 (0.8%)	2 (0.4%)	0 (0%)
Total (includes invasive + *in situ*)	499	508	486

* Data for invasive cancers 1995 kindly supplied by Dr Glenda Mock

84.3% of all pathologically verified cases were of the *in situ* CIN III stage. In addition 2-4% of all cases, (or 14-25% of invasive tumours), were of the very early malignant microinvasive tumours. It is also clear from comparing the figures for 1993 and 1994 with Dr Mock's figures for 1995, the Registry was unable to adequately stage cervical cancers using the pathology reports alone. This was particularly so for tumours of stage 2 or above.

Cytological Screening

In addition to the pathologically verified severe dysplasia (CIN III), a large number of cytologically dyskaryosis cases were registered. These cases did not have a positive biopsy. The quality of information on these two categories was not investigated - see Table 37.

Table 37 Cytological Severe Dyskaryosis and Moderate Dyskaryosis Numbers by Registered Year.

	Year		
	1993	**1994**	**1995***
Severe dyskaryosis	330	261	343
Moderate dyskaryosis	551	816	845