



NHSBSP Surgical QA Data for the Year of Screening 1 April 2000 to 31 March 2001

Dr Gill Lawrence and
Professor David George
on behalf of the
BASO Breast Group



Acknowledgements



- The BASO Breast Audit Group

- Mr Hugh Bishop
- Mr James Bristol
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- Dr Gill Lawrence
- Mr Fergus Neilson
- Mrs Julietta Patnick
- Mr Paul Sauvern
- Dr Matthew Wallis
- Dr Jackie Walton
- Mrs Margot Wheaton
- Miss Emma Wheeler

would like to extend their thanks to the following individuals and groups for their contributions to the 2000/01 BASO Breast Audit

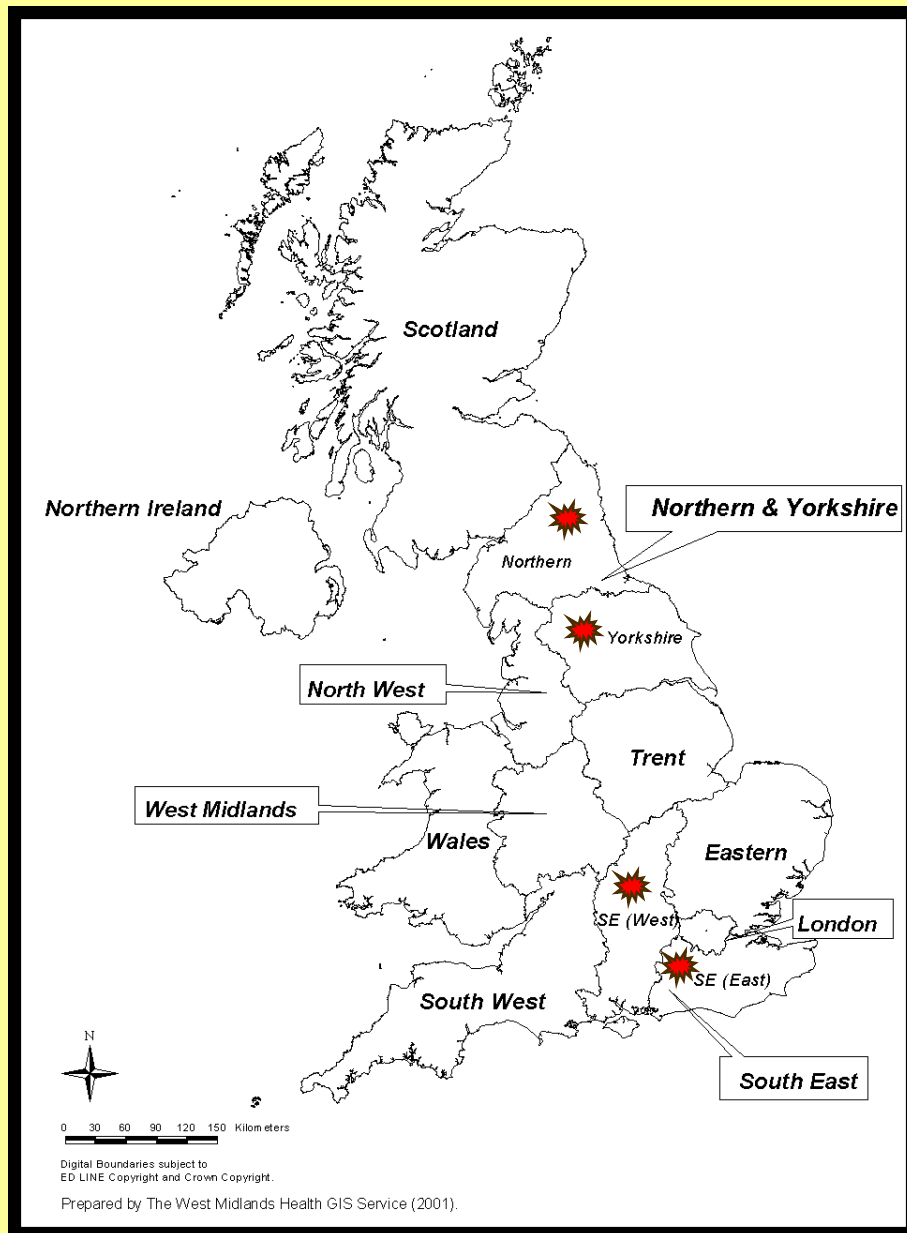
Acknowledgements



- Surgical QA Co-ordinators
- Breast Screening QA Co-ordinators
- Regional QA Directors
- BASO
 - Mrs Veronica Hall
- Newcastle QA Reference Centre
- West Midlands Cancer Intelligence Unit
 - Mrs Diane Edwards
 - Dr Cheryl Livings
- Government Actuary Department
 - Mr Graham Lamberti



Details of the regions and countries in the UK that submitted data to the 2000/01 BASO breast audit



Women included in the BASO audit



<u>year</u>	<u>No. women screened</u>	<u>No. cancers detected</u>
1996/97	1,340,175	7,410
1997/98	1,419,287	8,232
1998/99*	1,308,751	8,028
1999/00	1,550,285	9,797
2000/01	1,535,019	10,079
Total	7,153,517	43,546

In 2000/2001

- 79% invasive
- 1% micro-invasive
- 19% non-invasive
- 54 cancers (1%) had unknown status

* data from Scotland not available

Pre-operative diagnosis



Pre-operative diagnosis rates

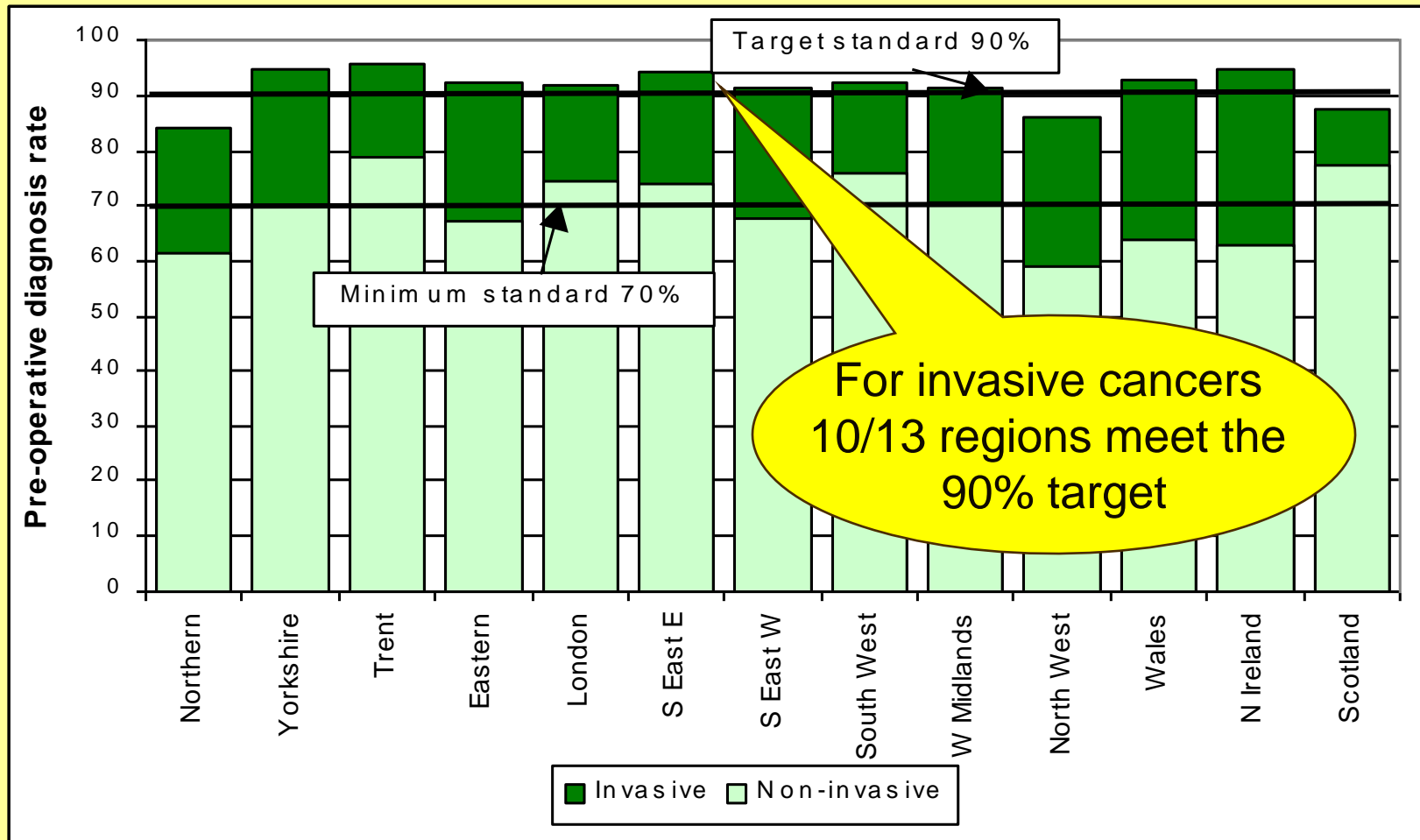
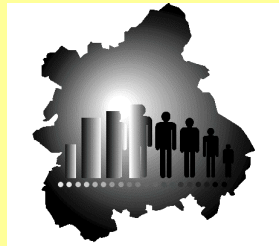


Minimum Standard \geq 70%
Target \geq 90%

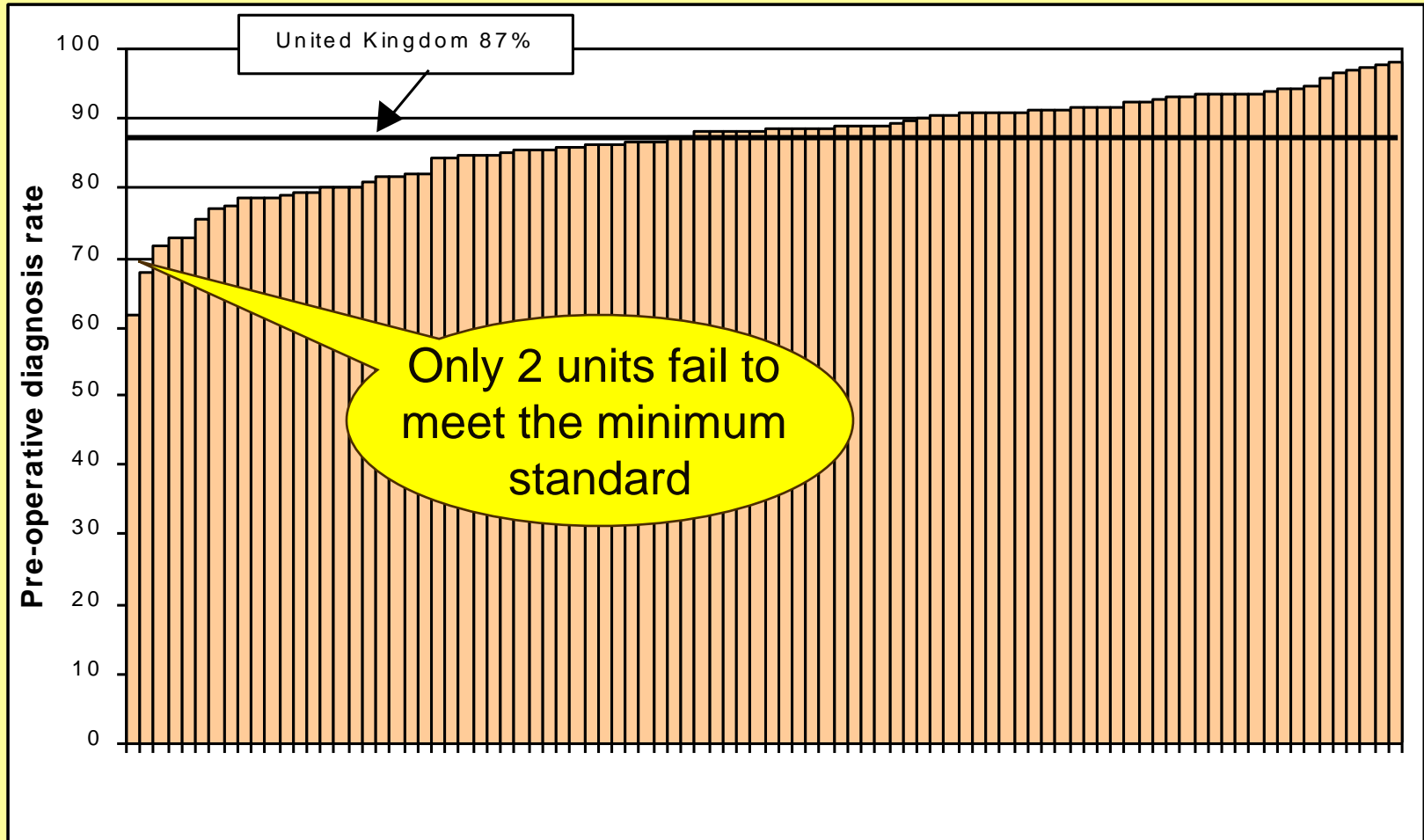
<u>year</u>	<u>Pre-operative diagnosis rate</u>	<u>Regions achieving minimum std</u>	<u>Regions achieving target</u>
1996/97	63%	25%	0%
1997/98	71%	68%	0%
1998/99*	81%	100%	7% (1)
1999/00	85%	100%	10% (1)
2000/01	87%	100%	15% (2)

* data from Scotland not available

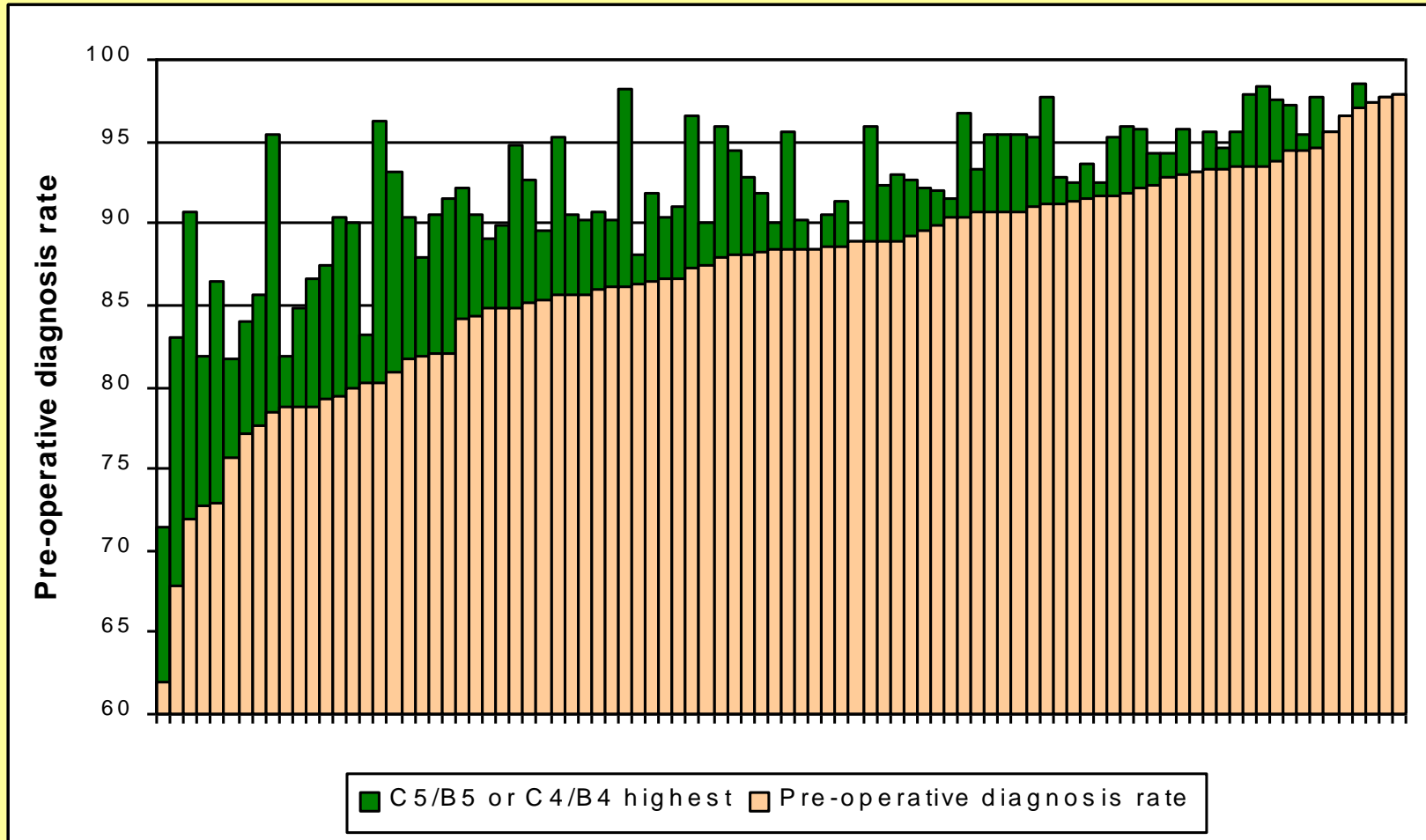
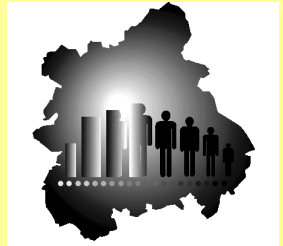
Pre-operative diagnosis rates for invasive and non-invasive cancers



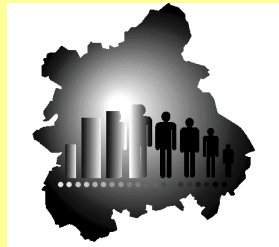
Pre-operative diagnosis rates for individual screening units



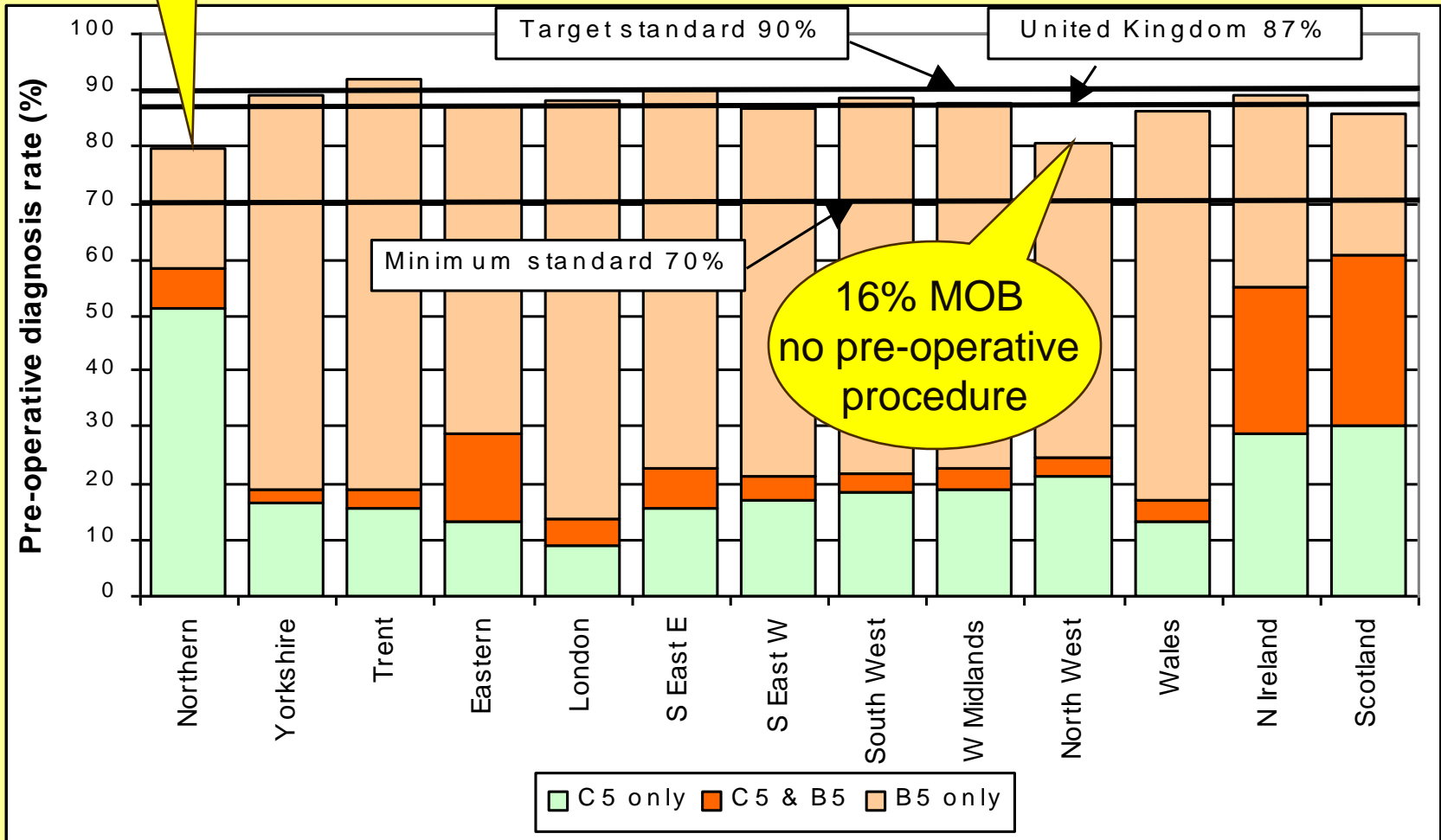
What would happen if all the C4/B4 diagnoses were C5/B5?



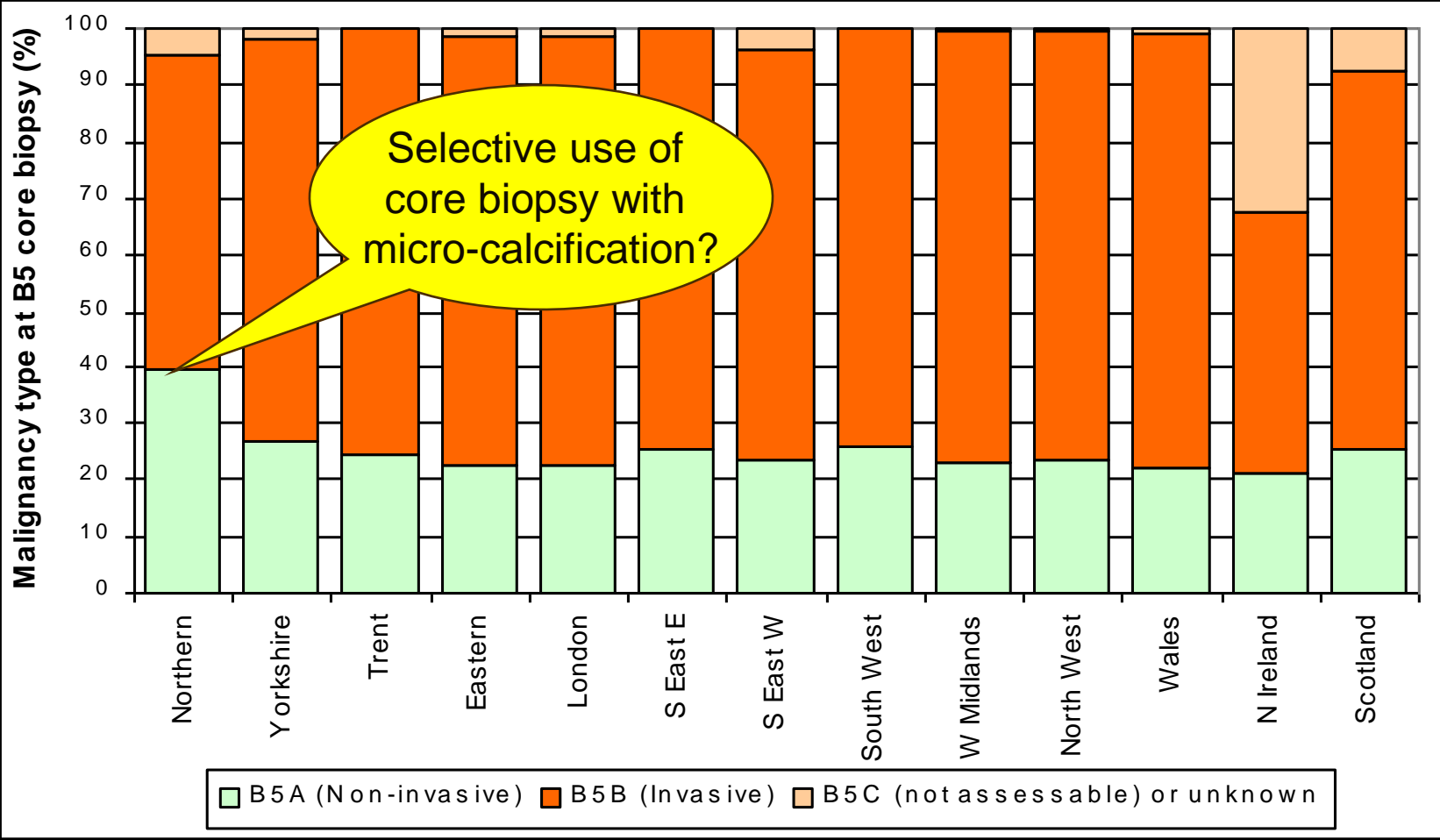
Pre-operative diagnosis technique



52% MOB
C4/B4



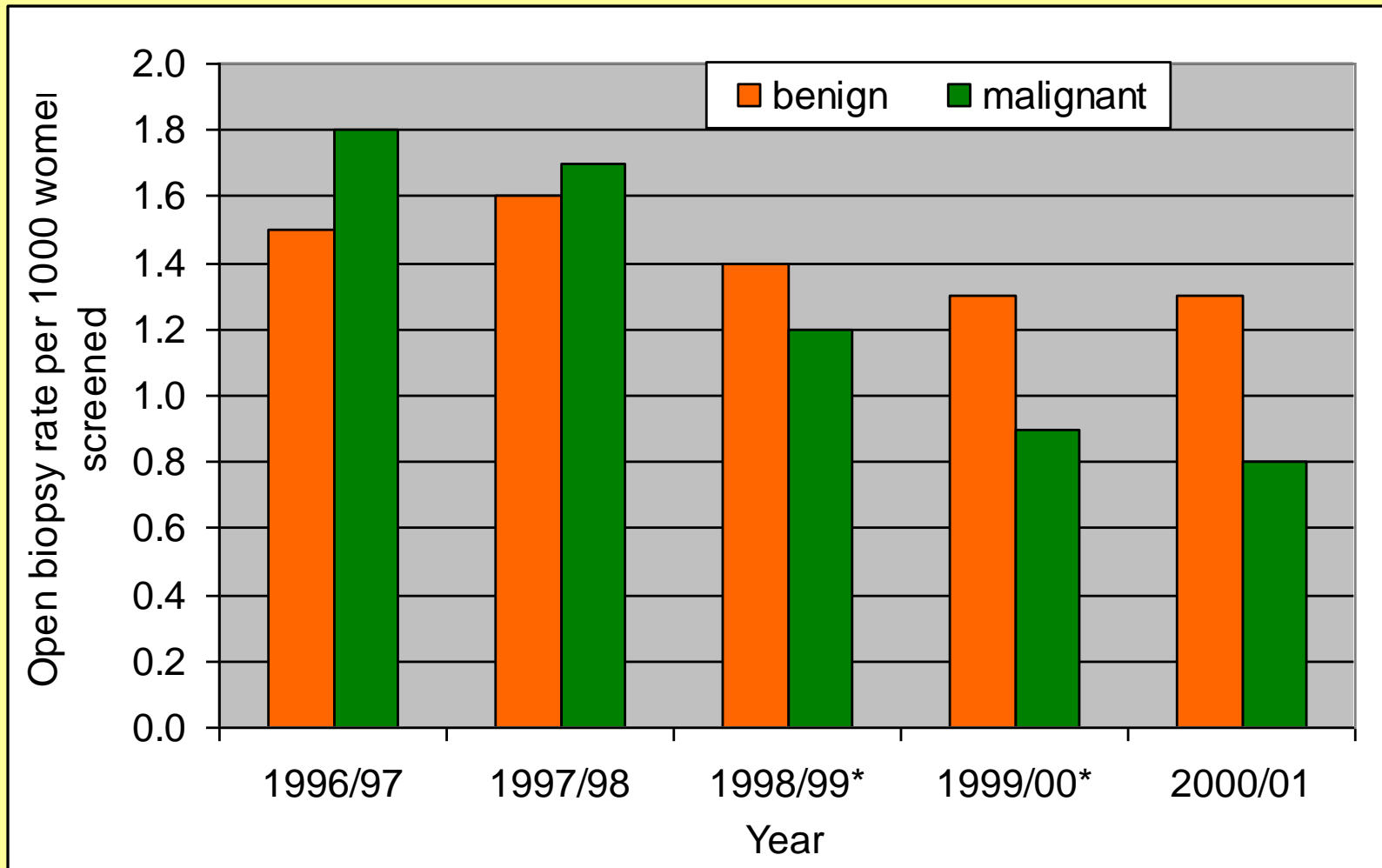
Invasive status at pre-operative core biopsy



Open biopsies

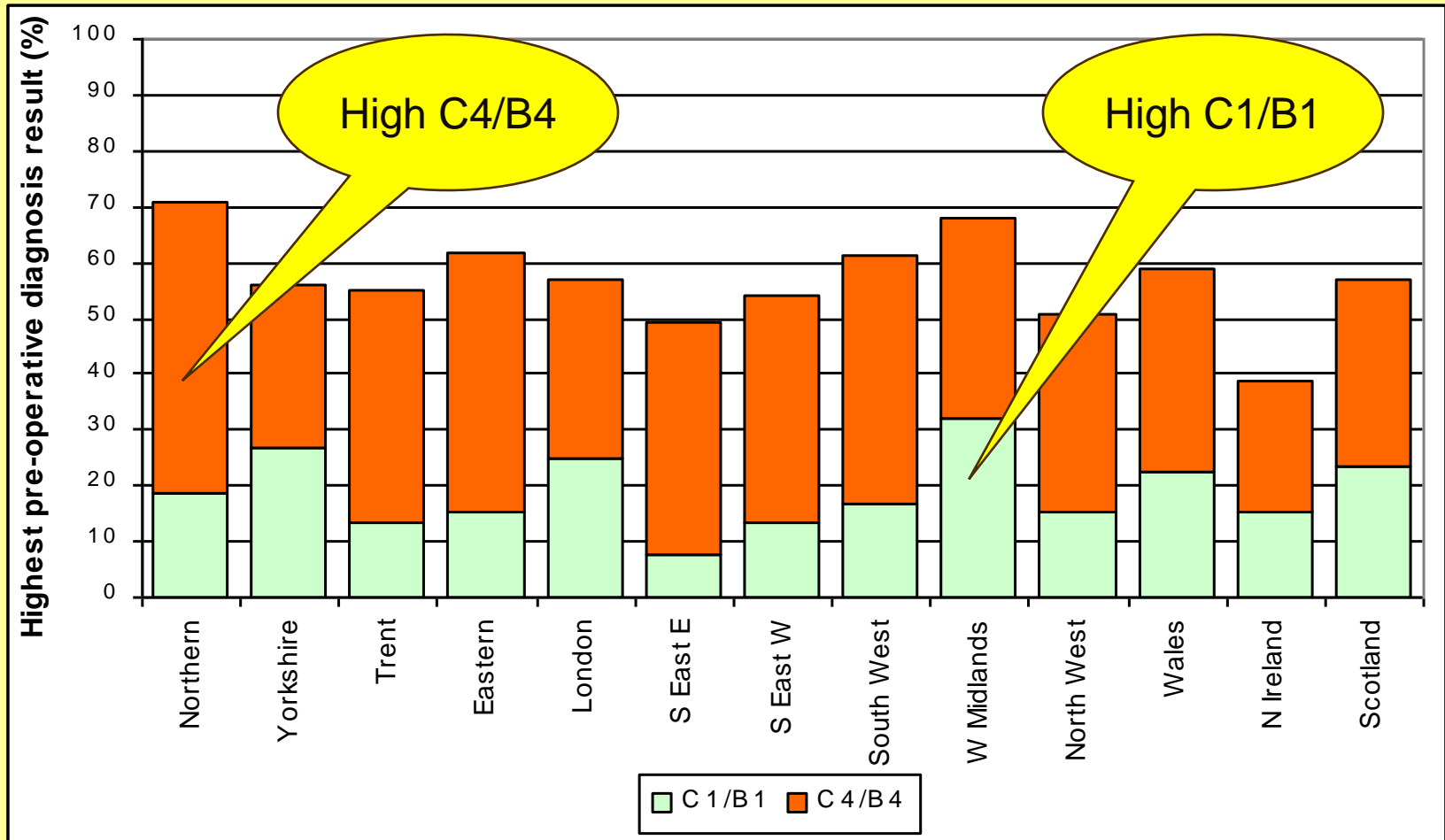


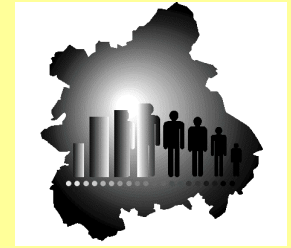
Benign and malignant open biopsy rates



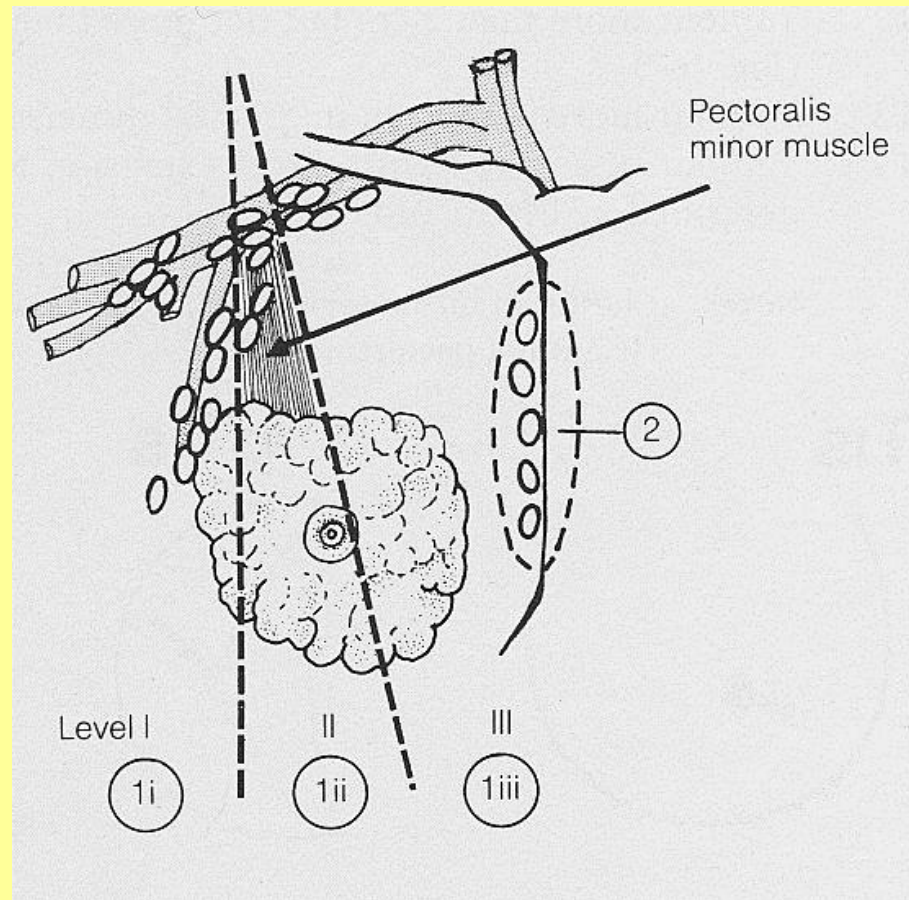
* data from Scotland not available

Highest pre-operative result for malignant open biopsies

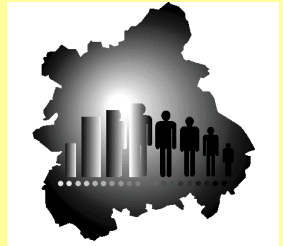




Lymph nodes



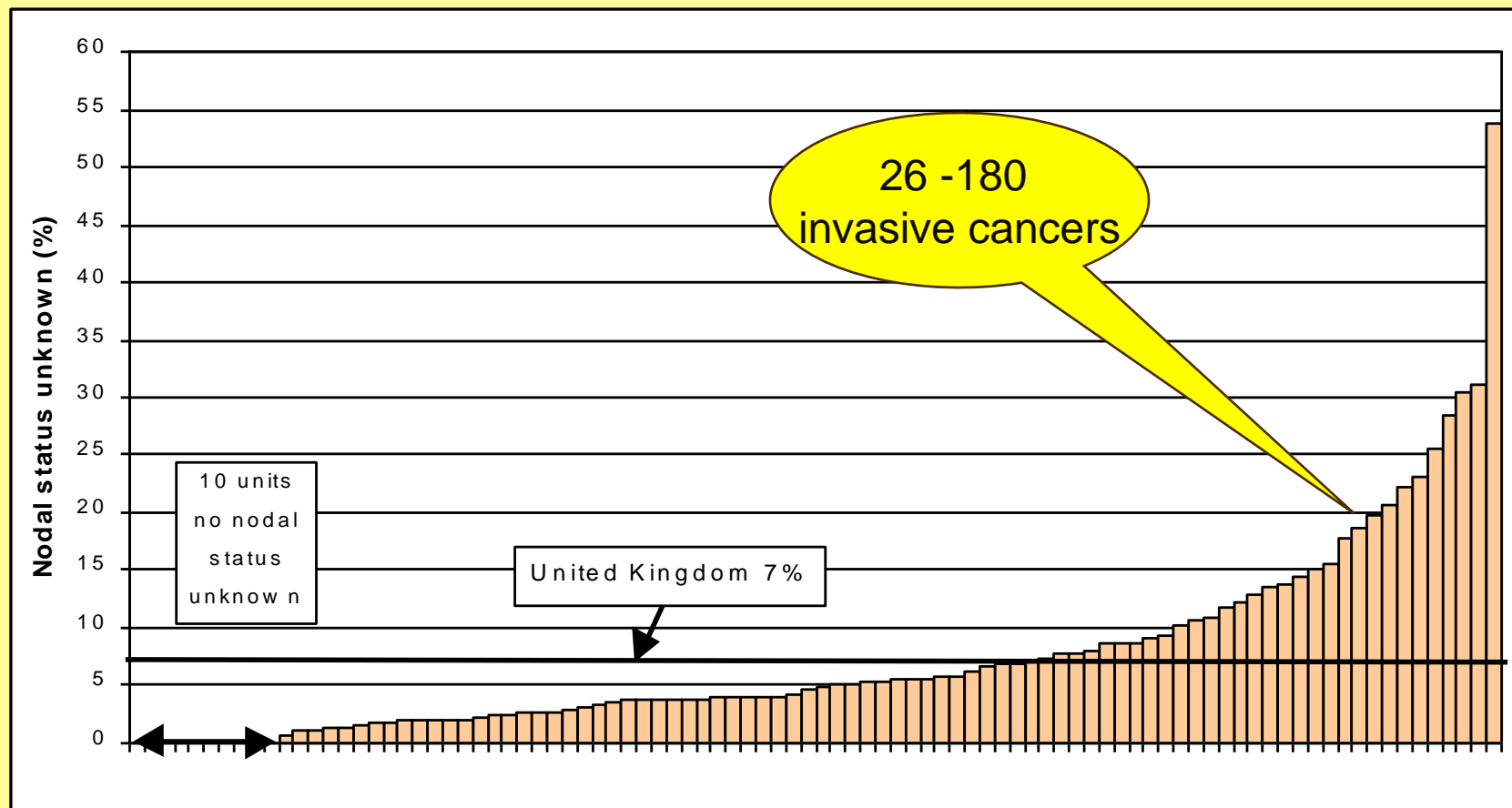
Lymph node status



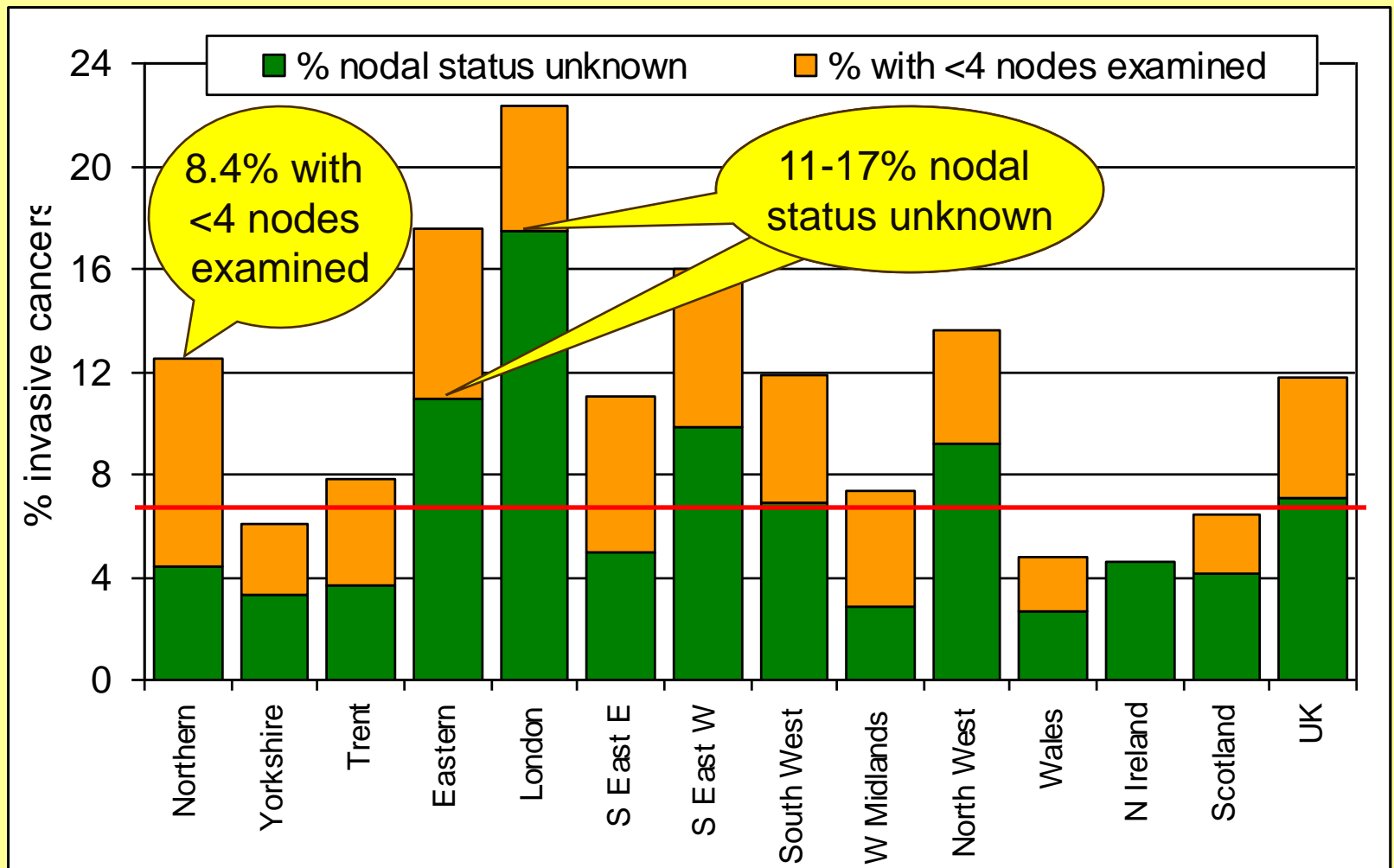
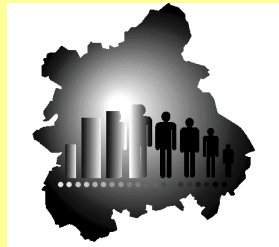
**Nodal status should be obtained for all invasive cancers
It is desirable to examine a minimum of 4 lymph nodes**

year	Number of invasive cancers	% without nodal information	% of invasive cancers with known nodal status		% with less than 4 nodes examined
			positive	negative	
1996/97	5,860	19	26	74	10.6
1997/98	6,427	13	25	75	9.0
1998/99*	6,200	10	26	74	6.7
1999/00	7,675	7	25	75	5.5
2000/01	7,945	7	25	75	5.0

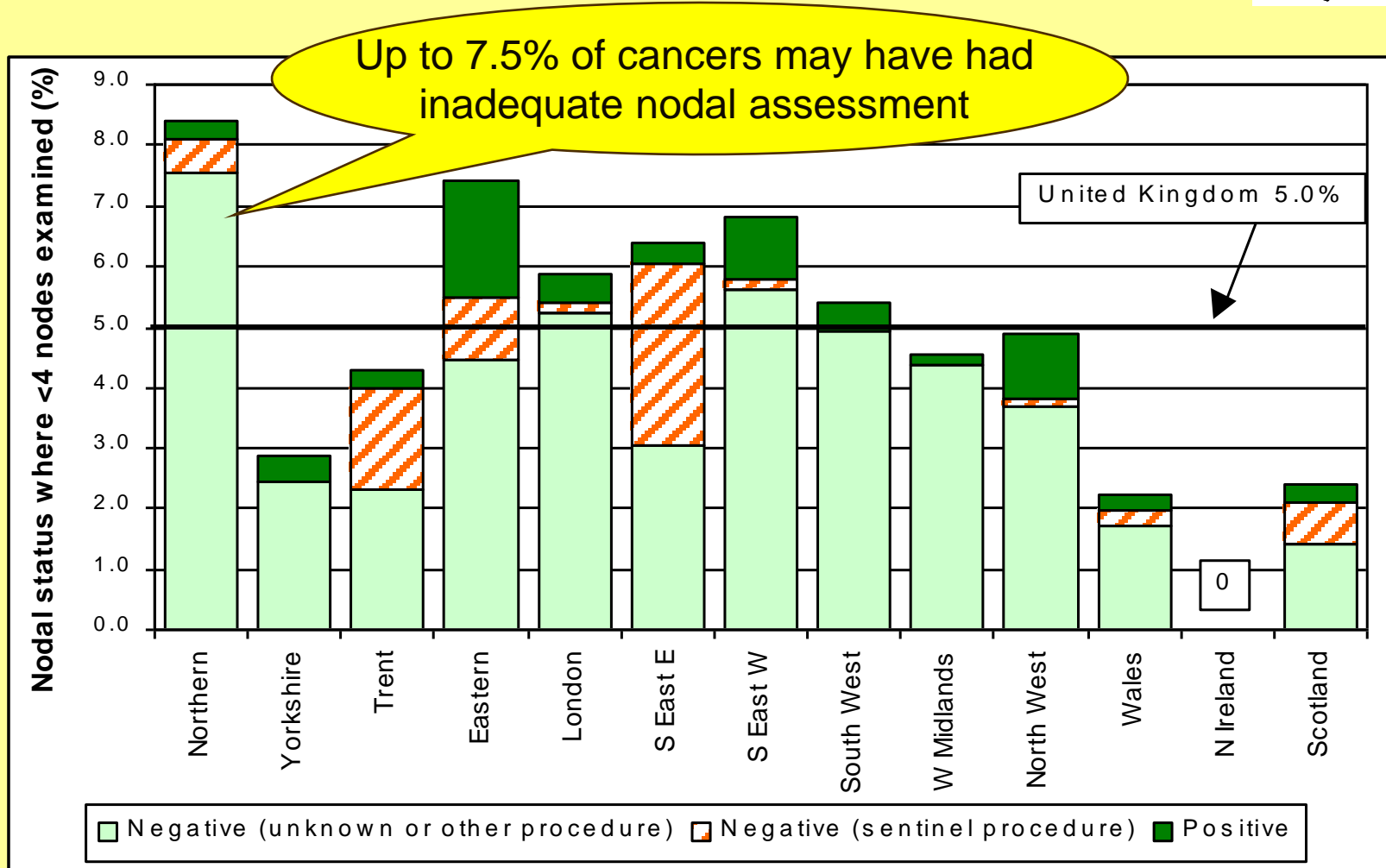
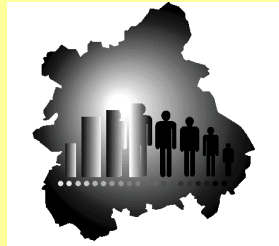
Nodal status unknown for invasive cancers in individual screening units



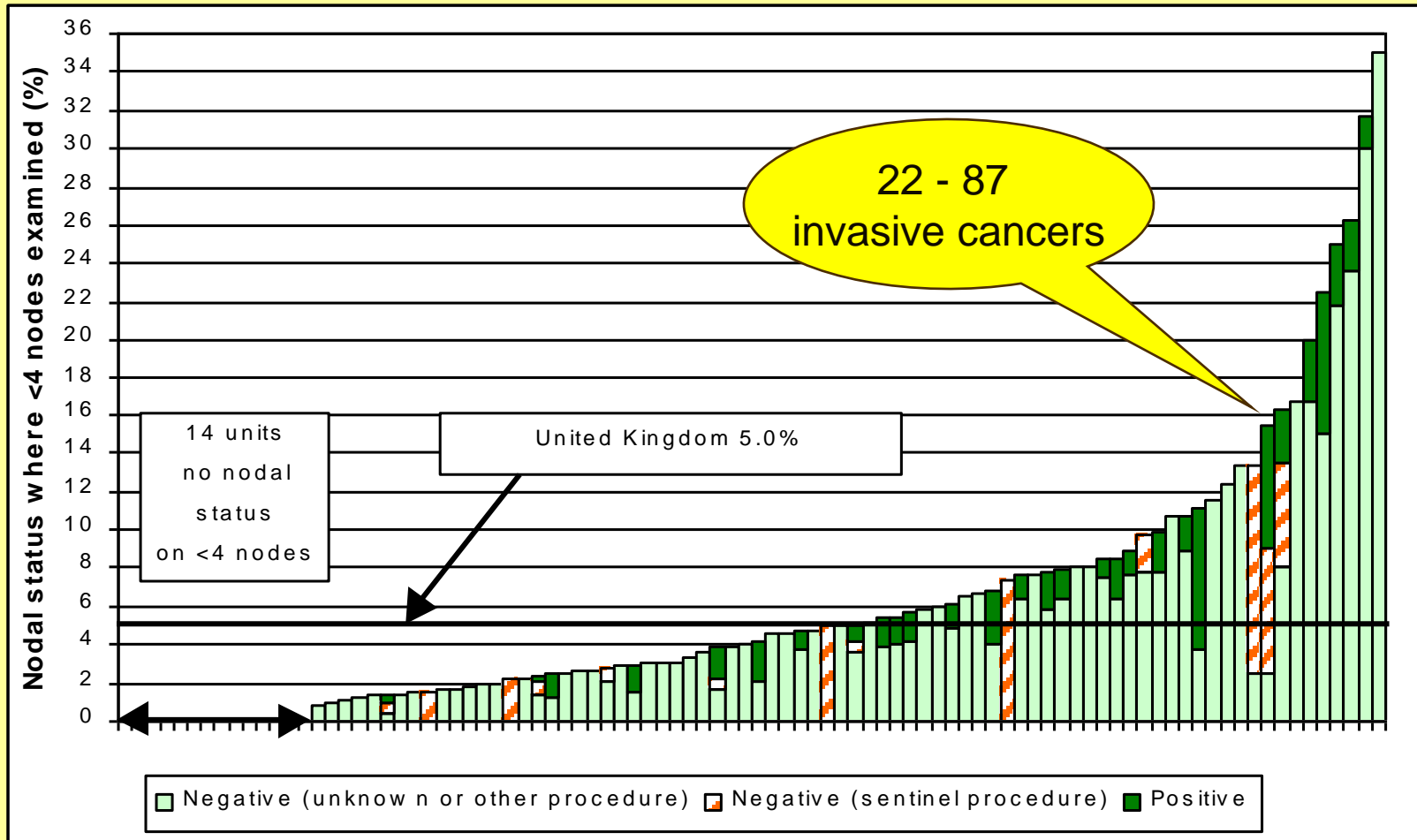
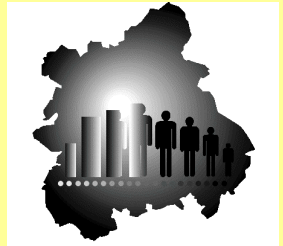
Regional variation in nodal status determination in 2000/01



Nodal status of invasive cancers diagnosed on the basis of <4 nodes



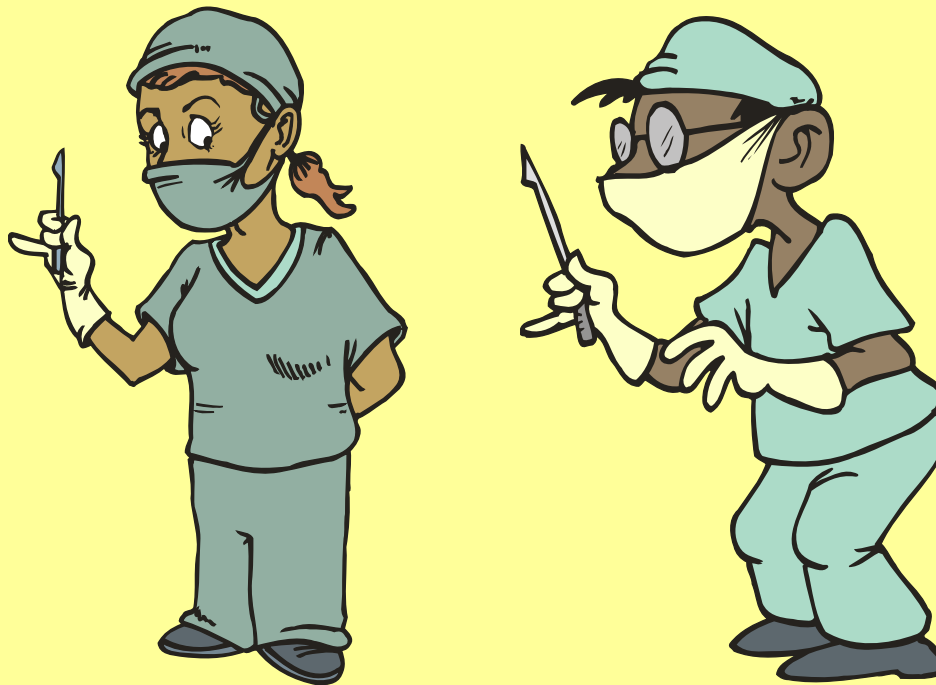
Nodal status where <4 nodes examined for individual units



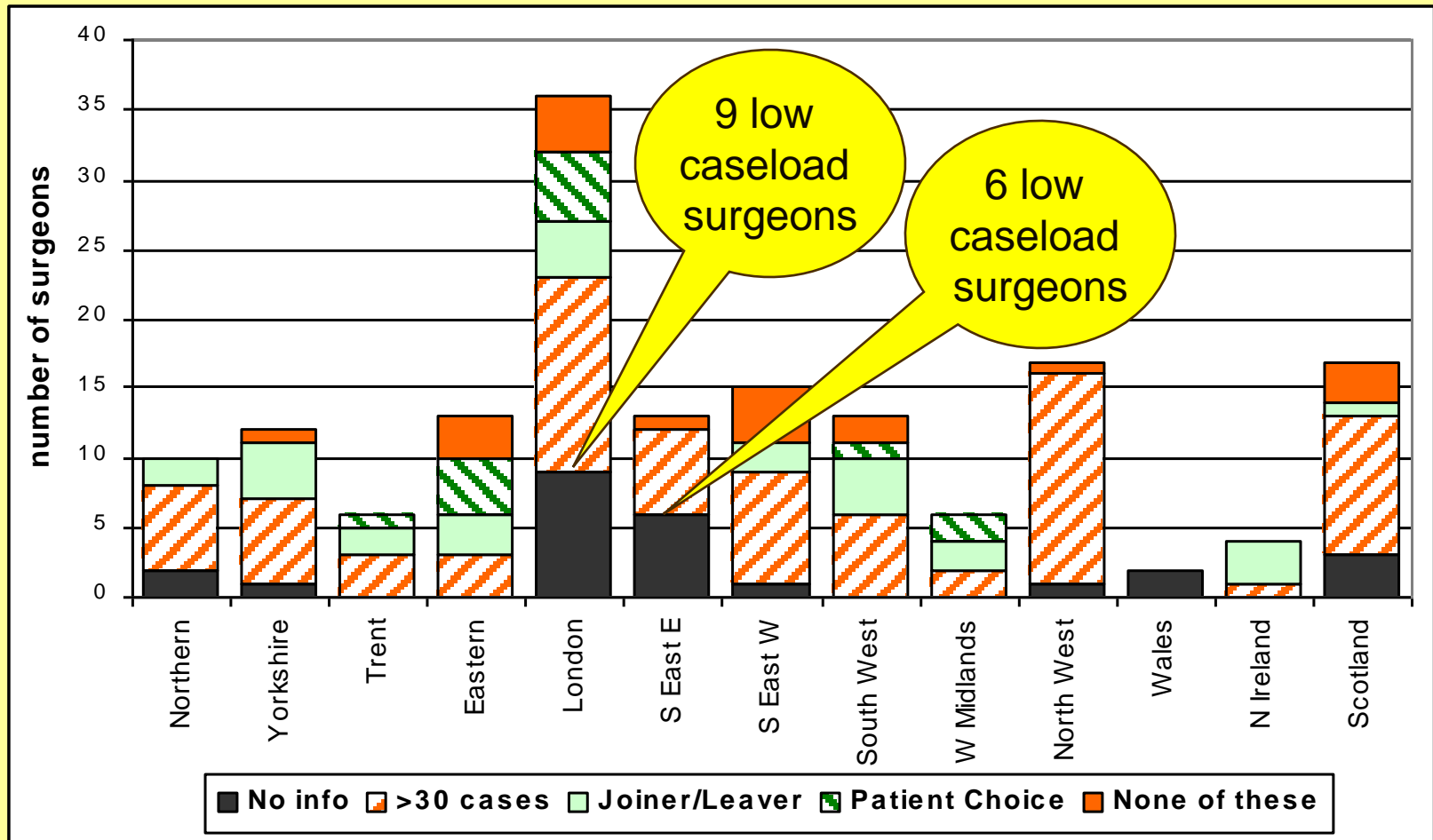
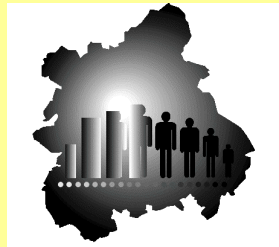
Surgical caseload



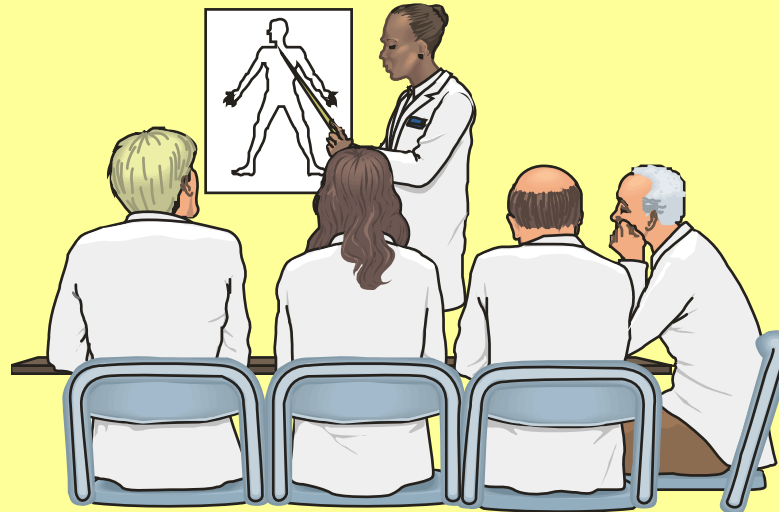
Women should be treated by a specialist breast surgeon



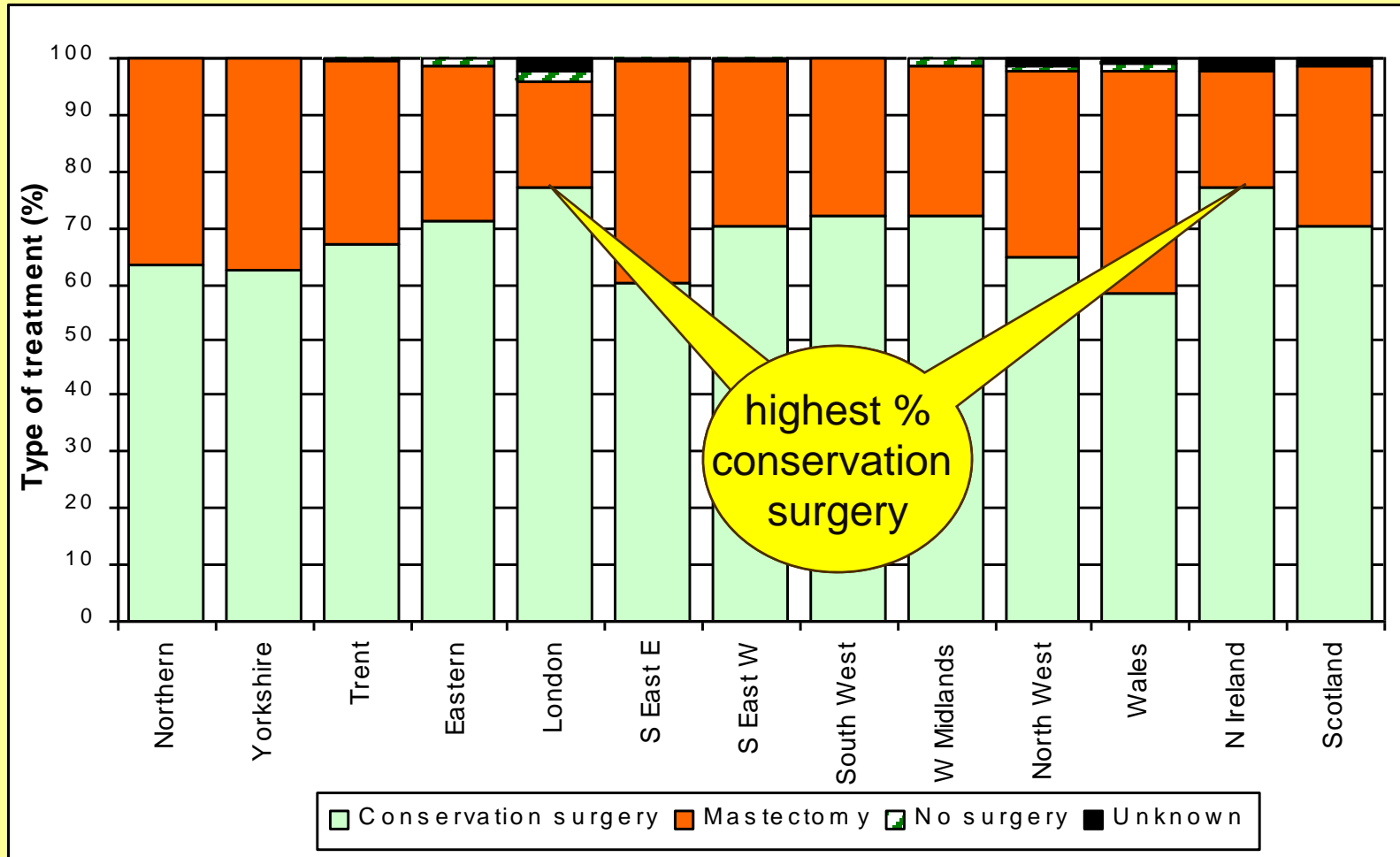
Number of surgeons treating less than 10 screening cases a year



Type of surgical treatment provided to non-invasive and invasive breast cancers

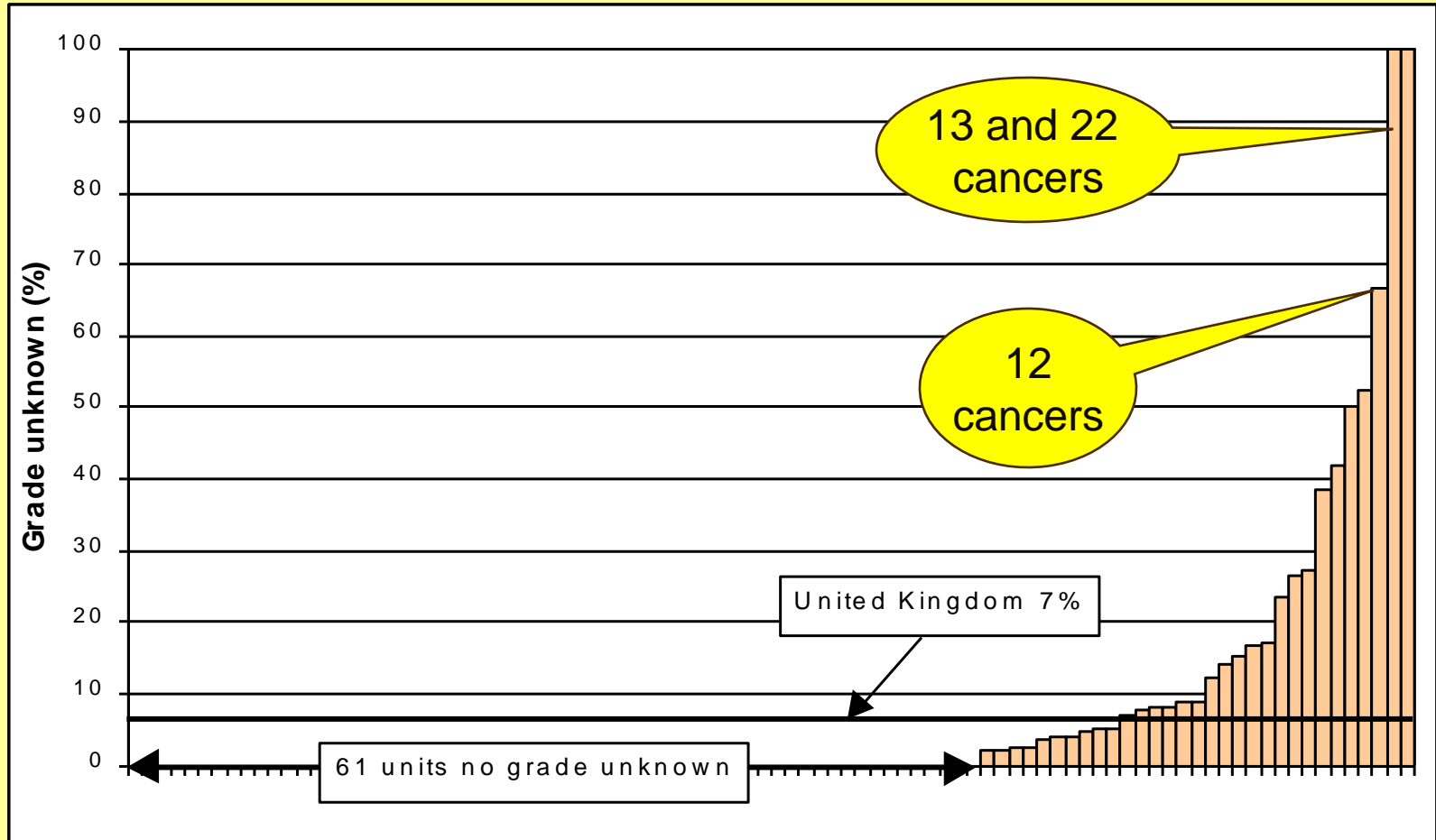


Treatment for non-invasive and micro-invasive cancers

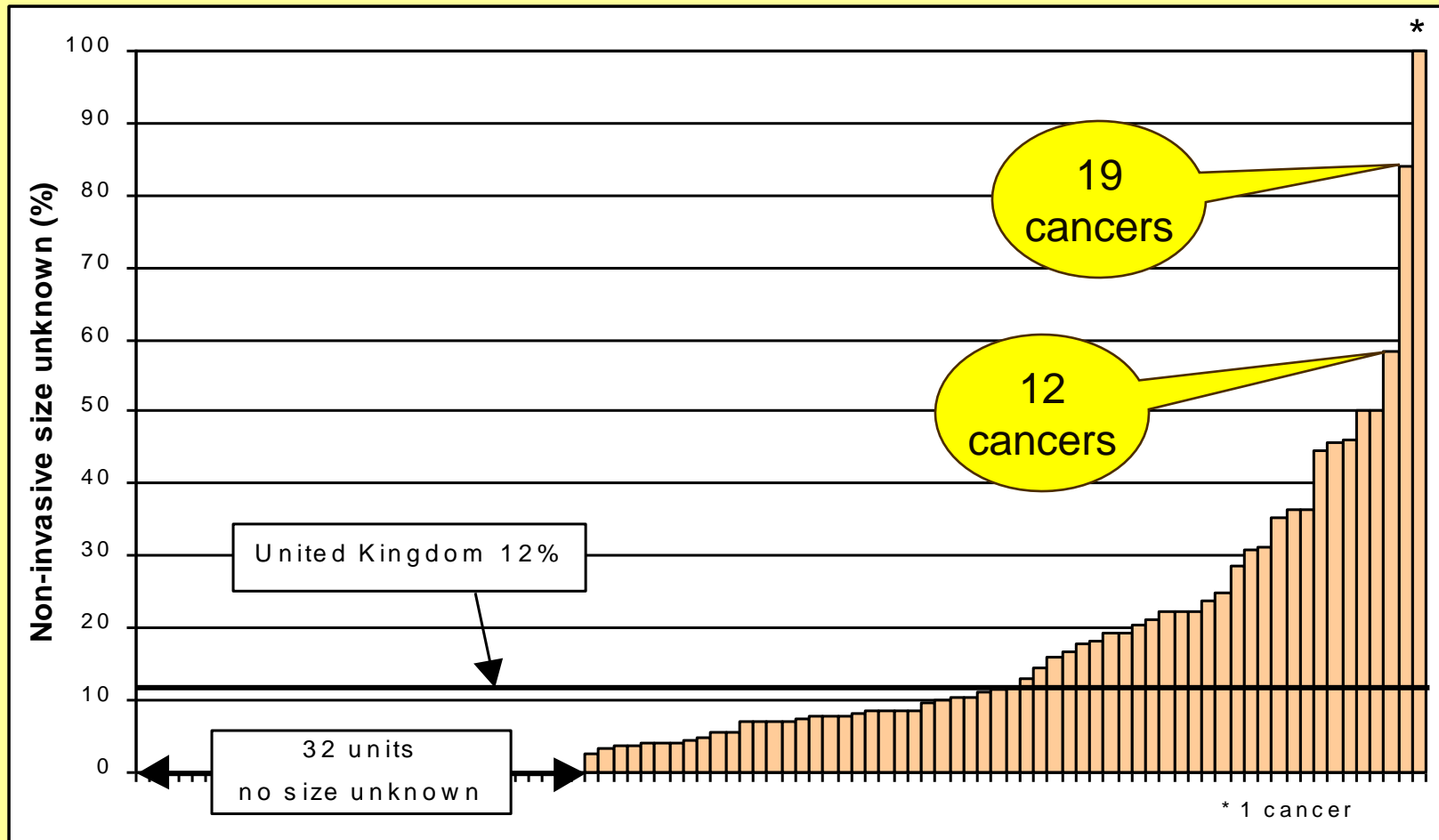


highest %
conservation
surgery

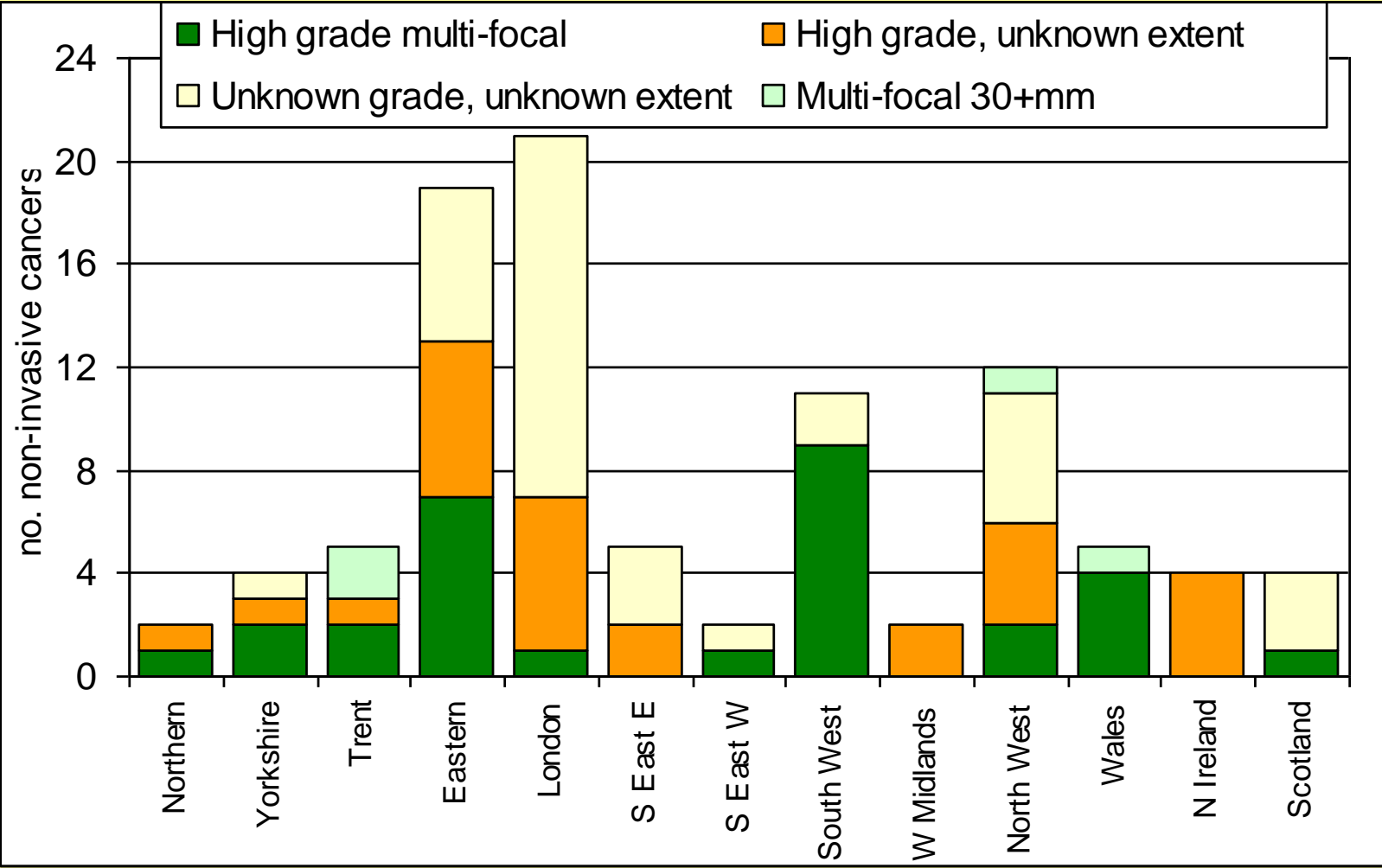
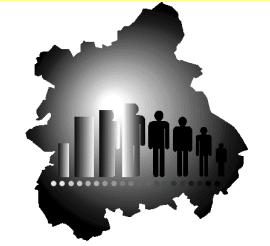
Non-invasive cancer nuclear grade unknown for individual units



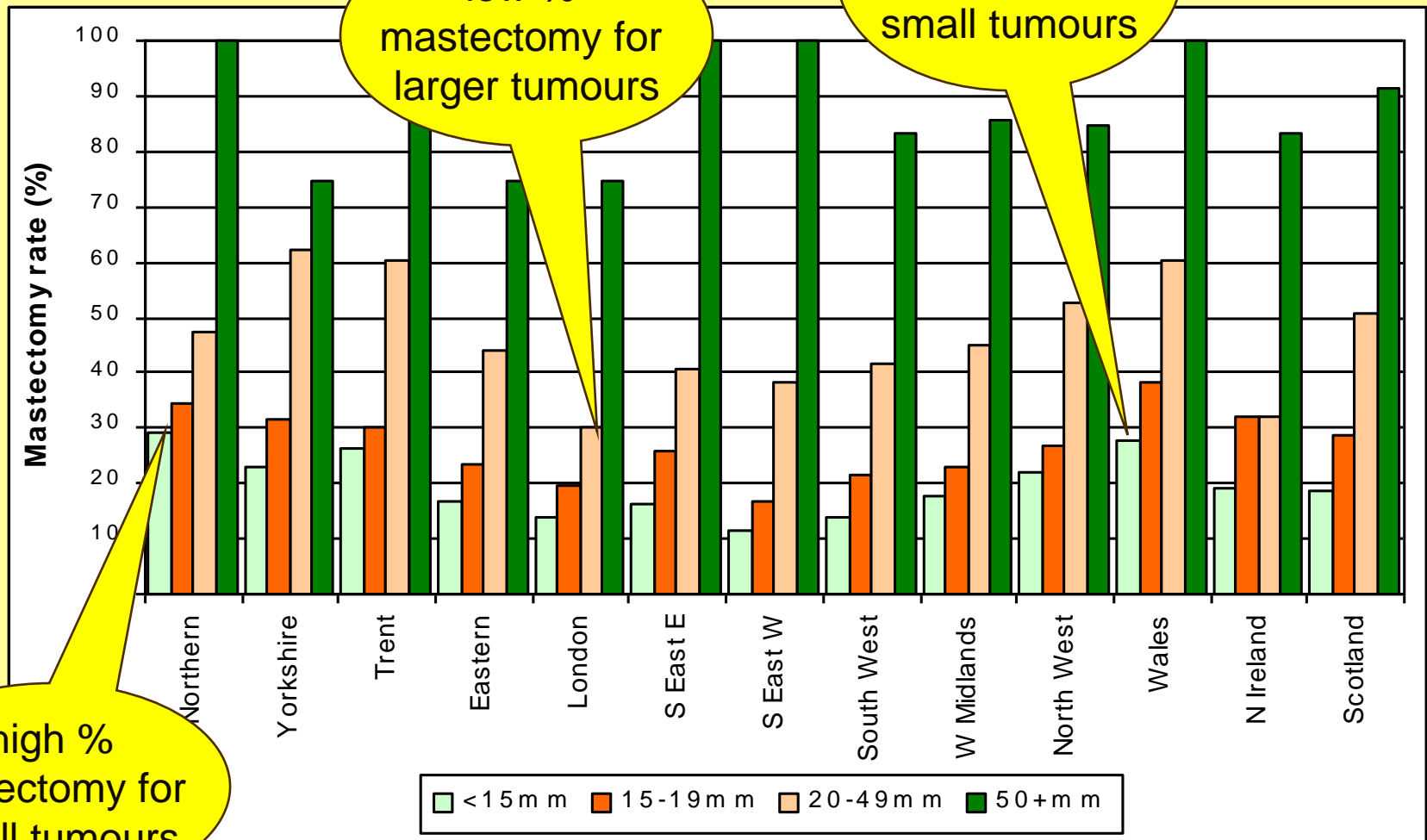
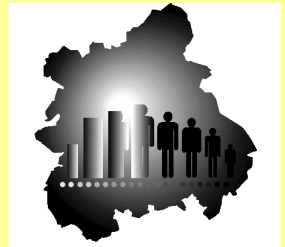
Non-invasive cancer size unknown for individual units



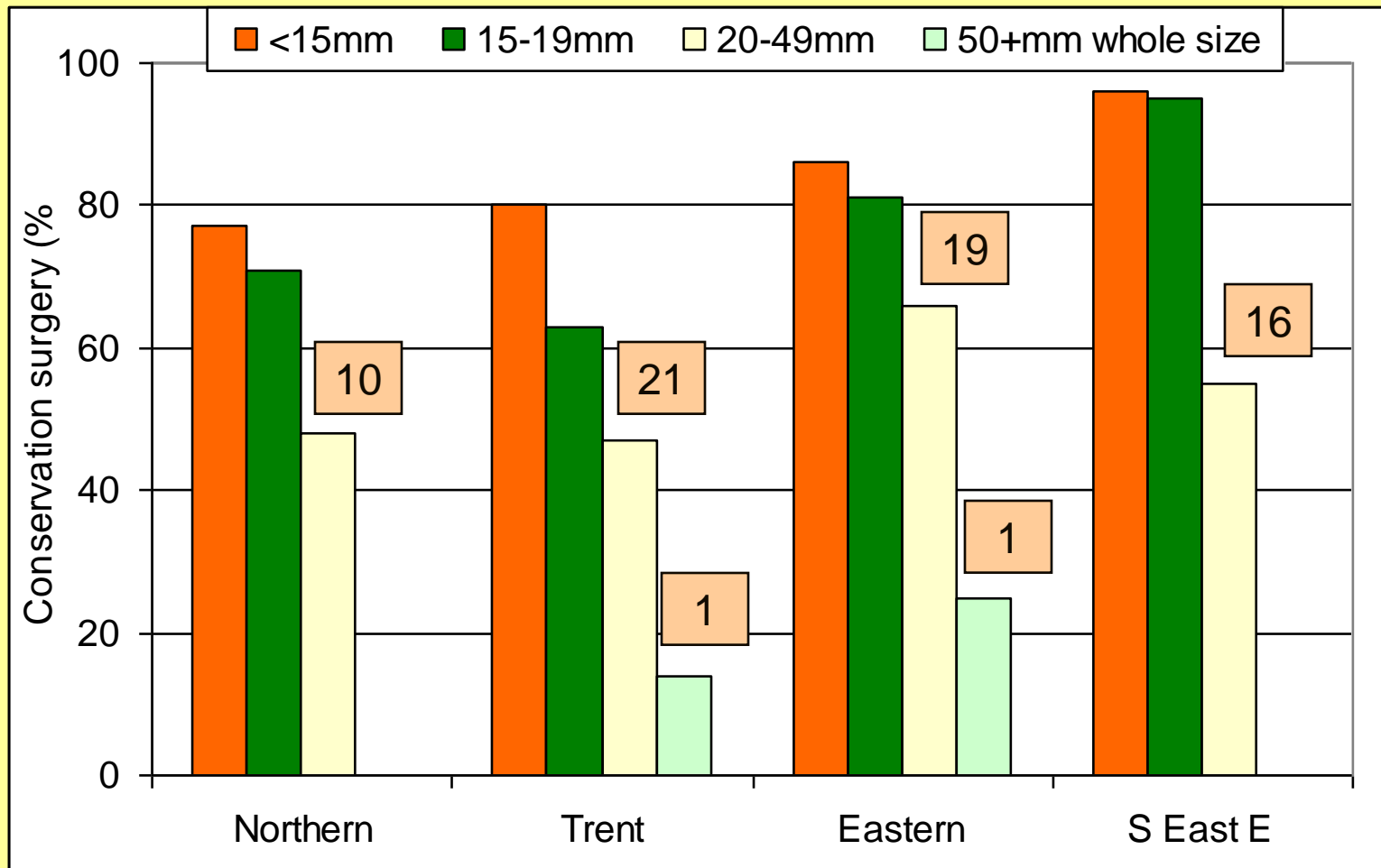
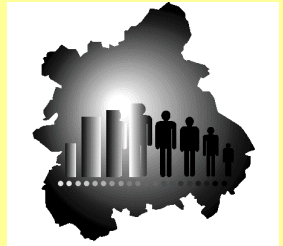
Non-invasive cancers treated with conservation surgery



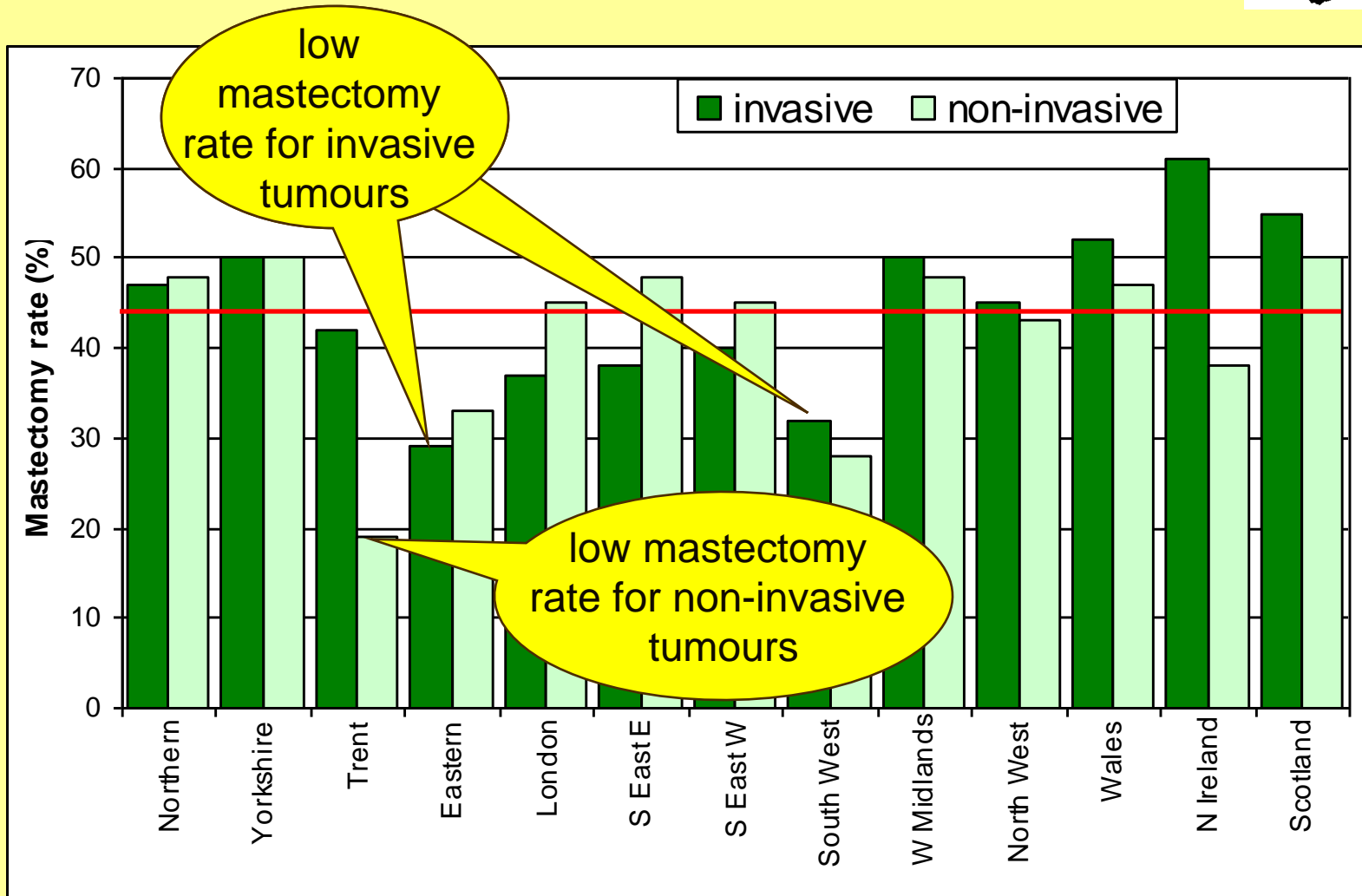
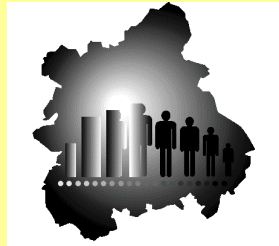
Variation in mastectomy rates with invasive tumour



Treatment of small cancers with invasive diameter <15mm



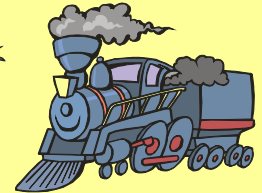
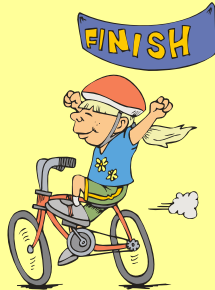
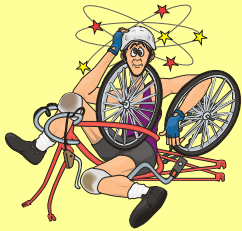
Final treatment for cancers with 2 or more operations



The patient journey



Which journeys were undertaken?

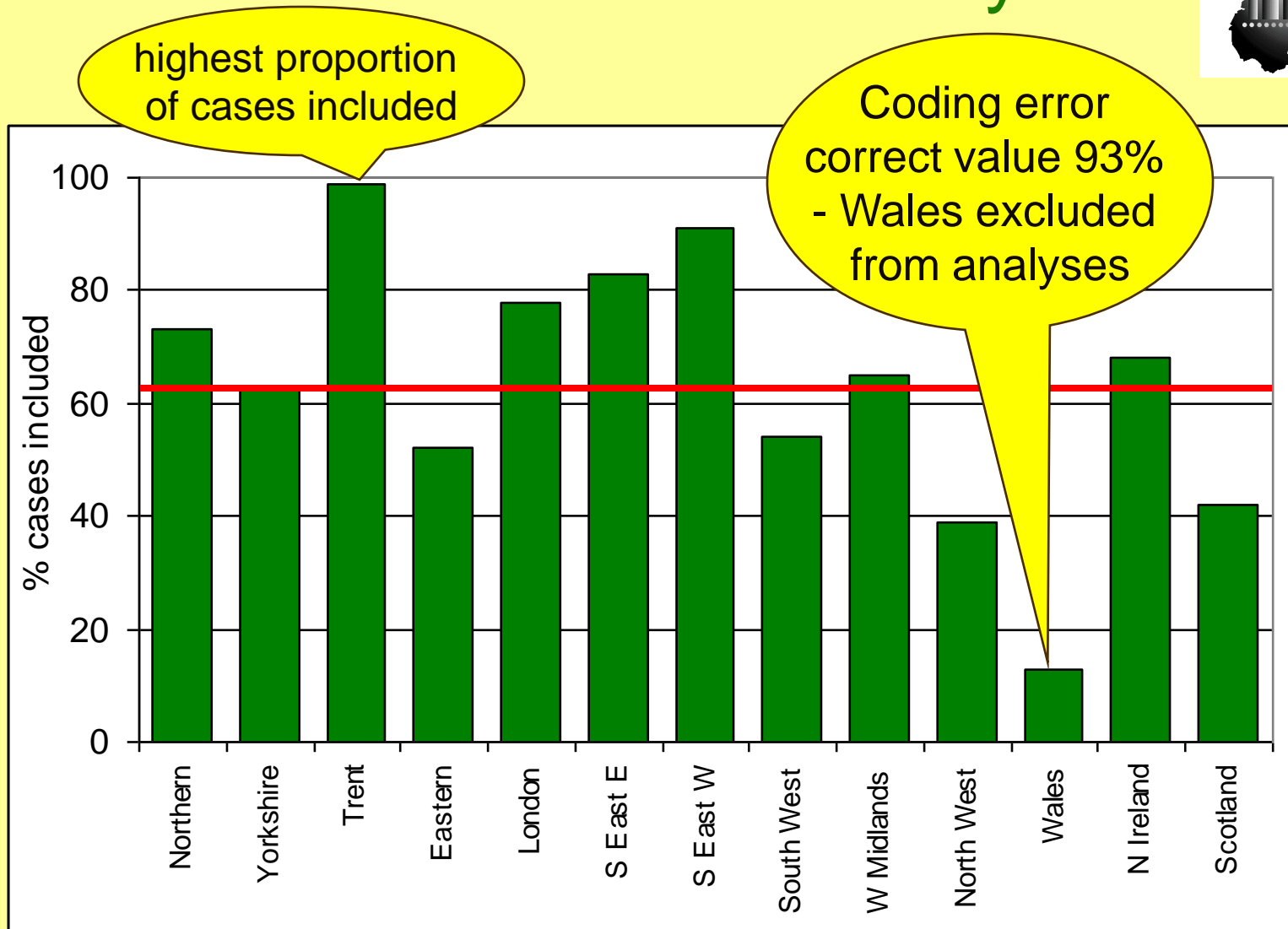
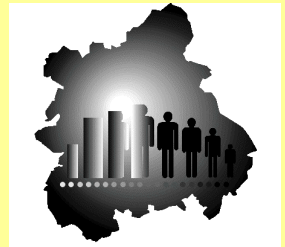


How long did it take to get there?

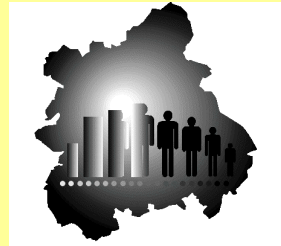
What combinations of treatments were given?



Cases included in the analysis



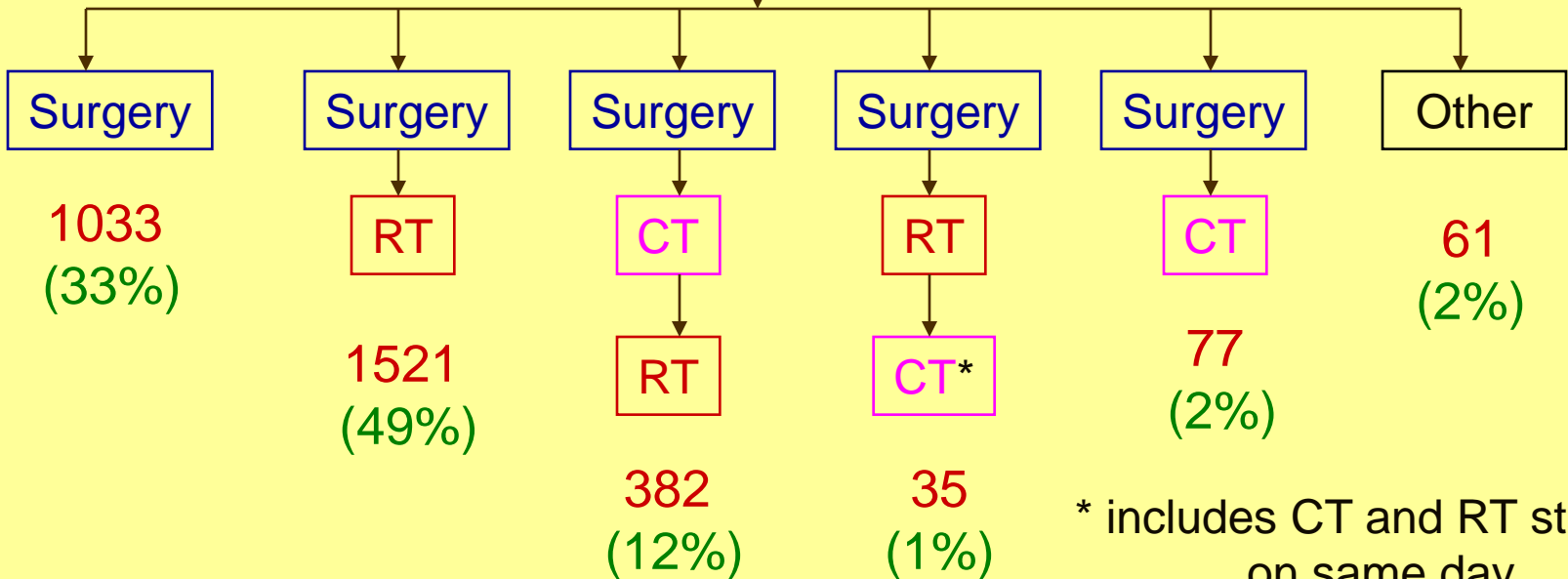
The most common patient journeys



Total cancers detected between
1st April and 30th September 2000
5011

Cancers included in patient journey analysis
3147

Journeys exclude variations in hormone therapy



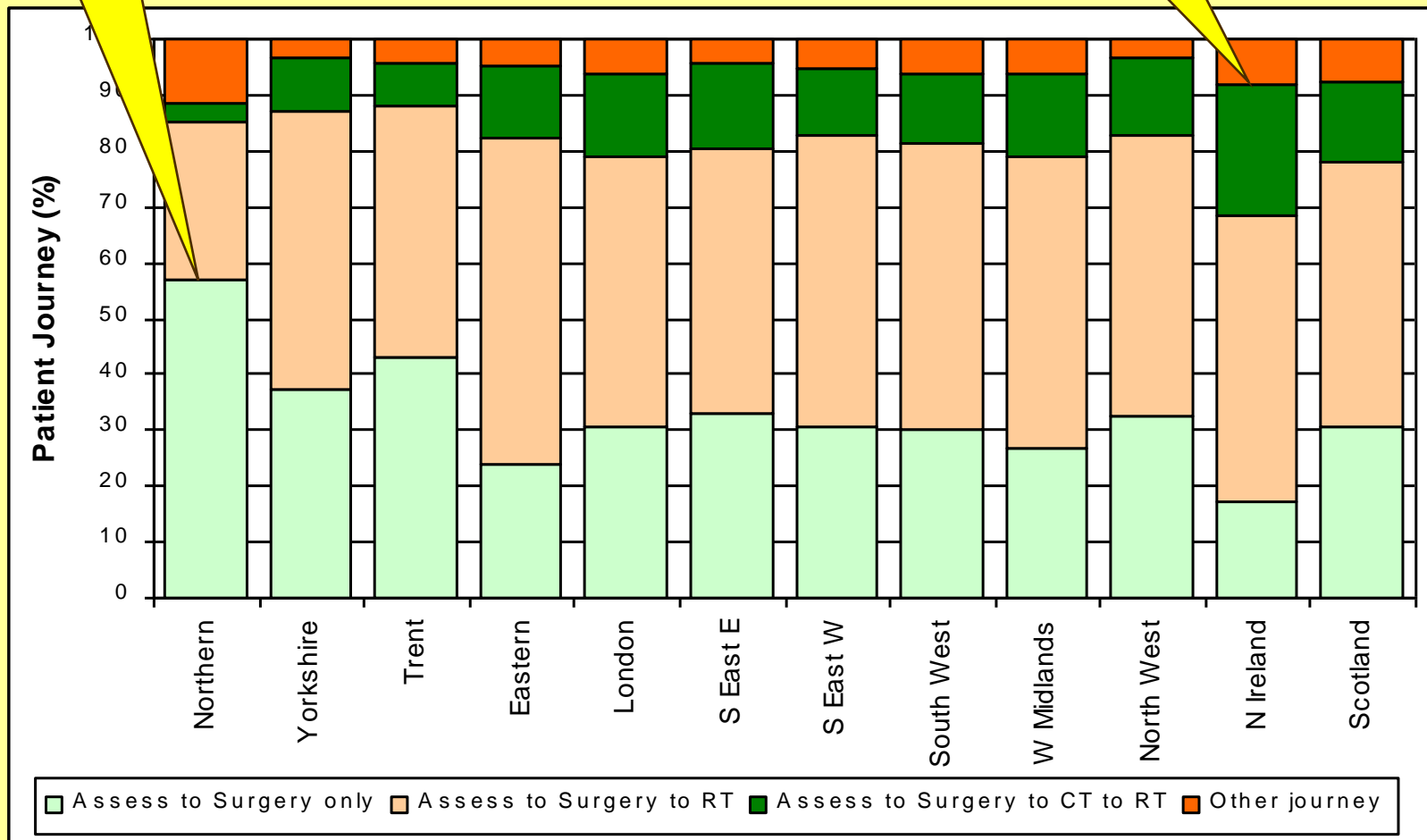
* includes CT and RT started on same day

Regional variations in the patient journey



High surgery only, low CT

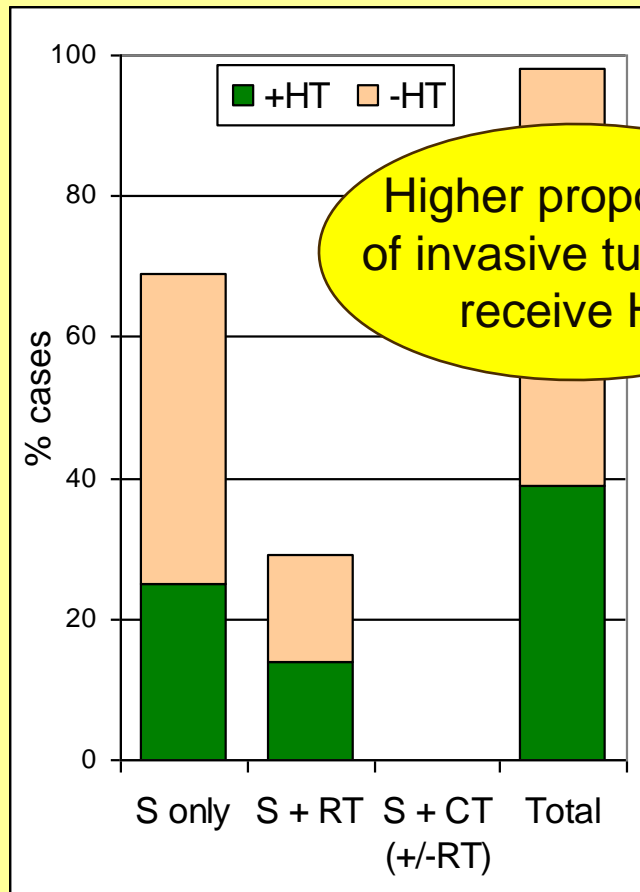
High CT



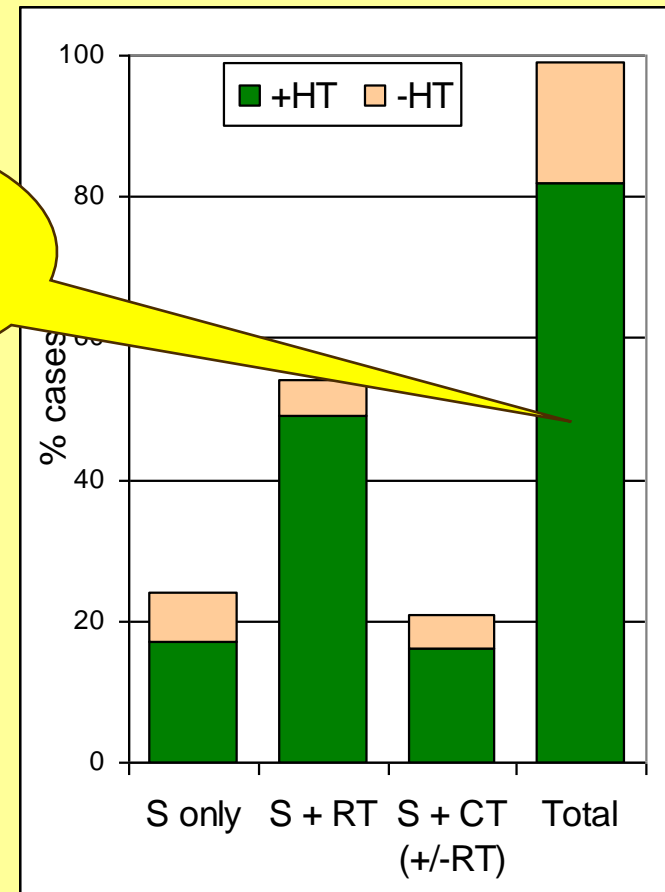
Treatment patterns for non-invasive and invasive cases



Non-invasive cases

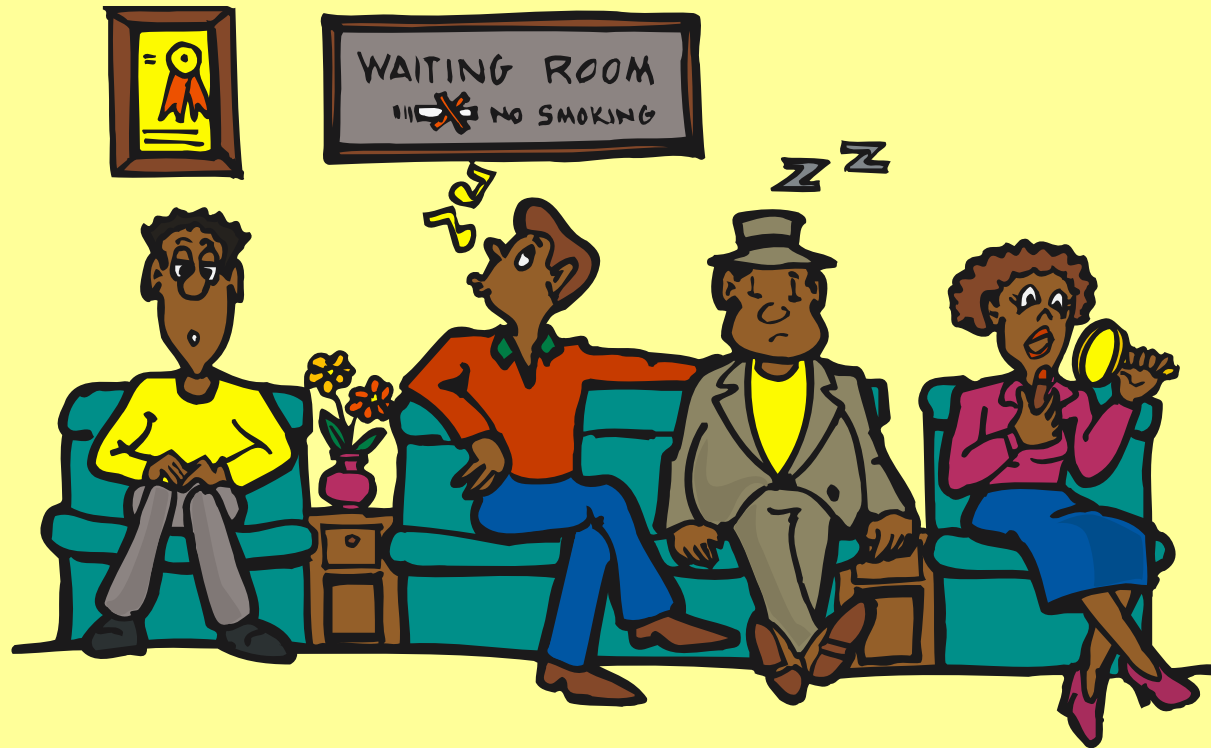


Invasive cases



Higher proportion of invasive tumours receive HT

Times to first treatment and from first treatment to adjuvant therapy

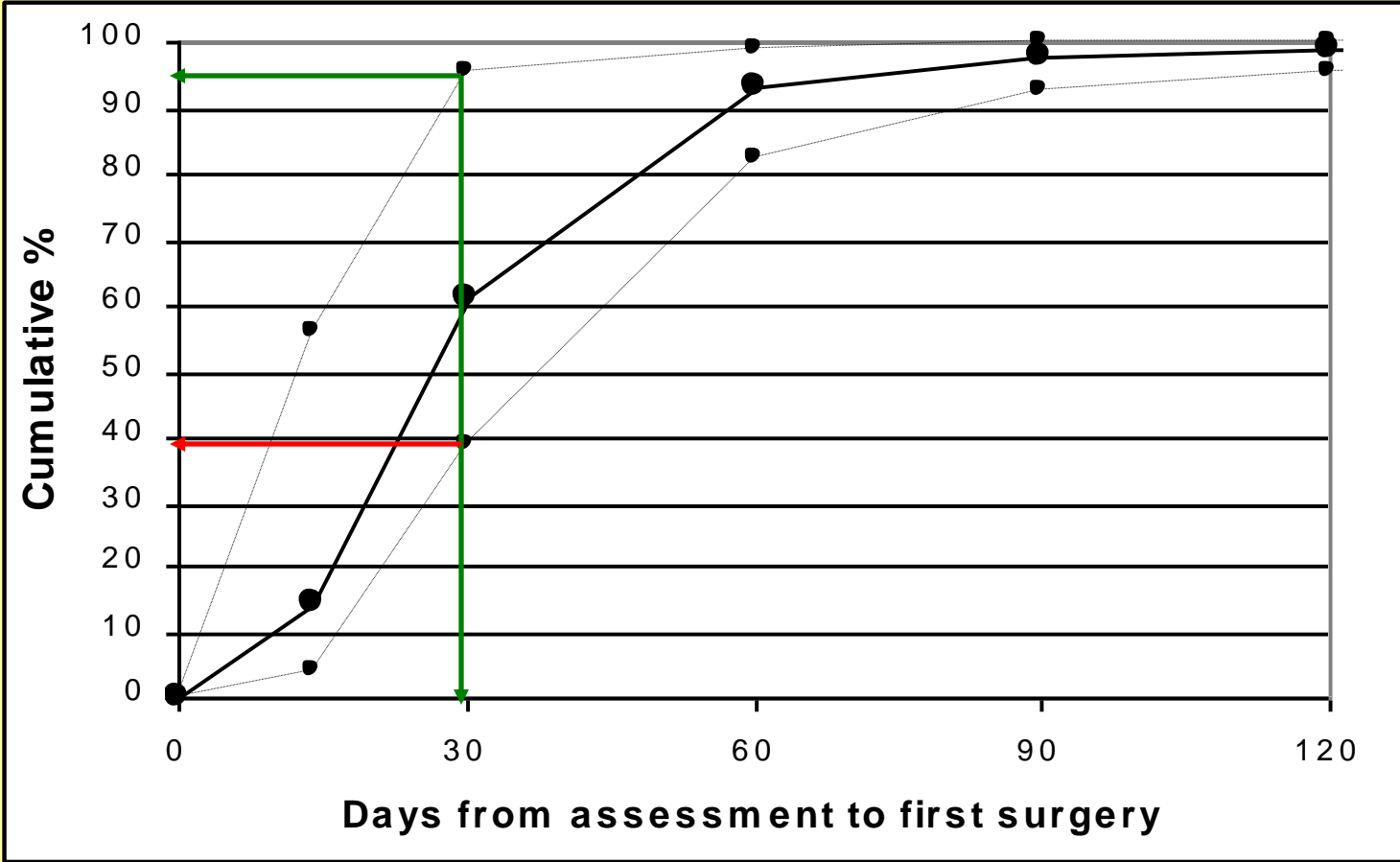


Time to first surgery



N Ireland 95%

S East E 39%



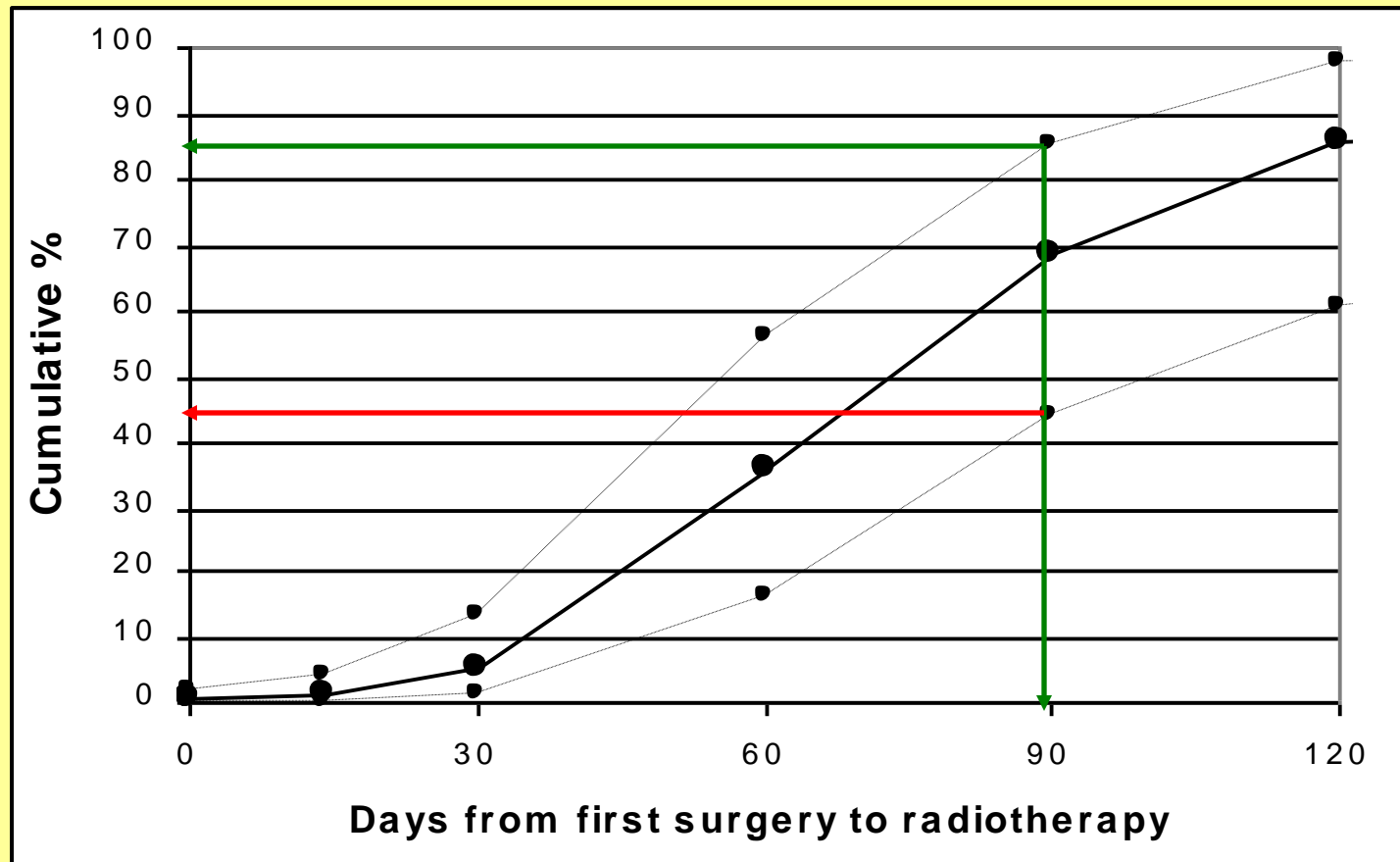
4941 cases

Time from surgery to radiotherapy



Wales and Trent 85%

Yorkshire 44%



Cases with no S or CT before RT excluded

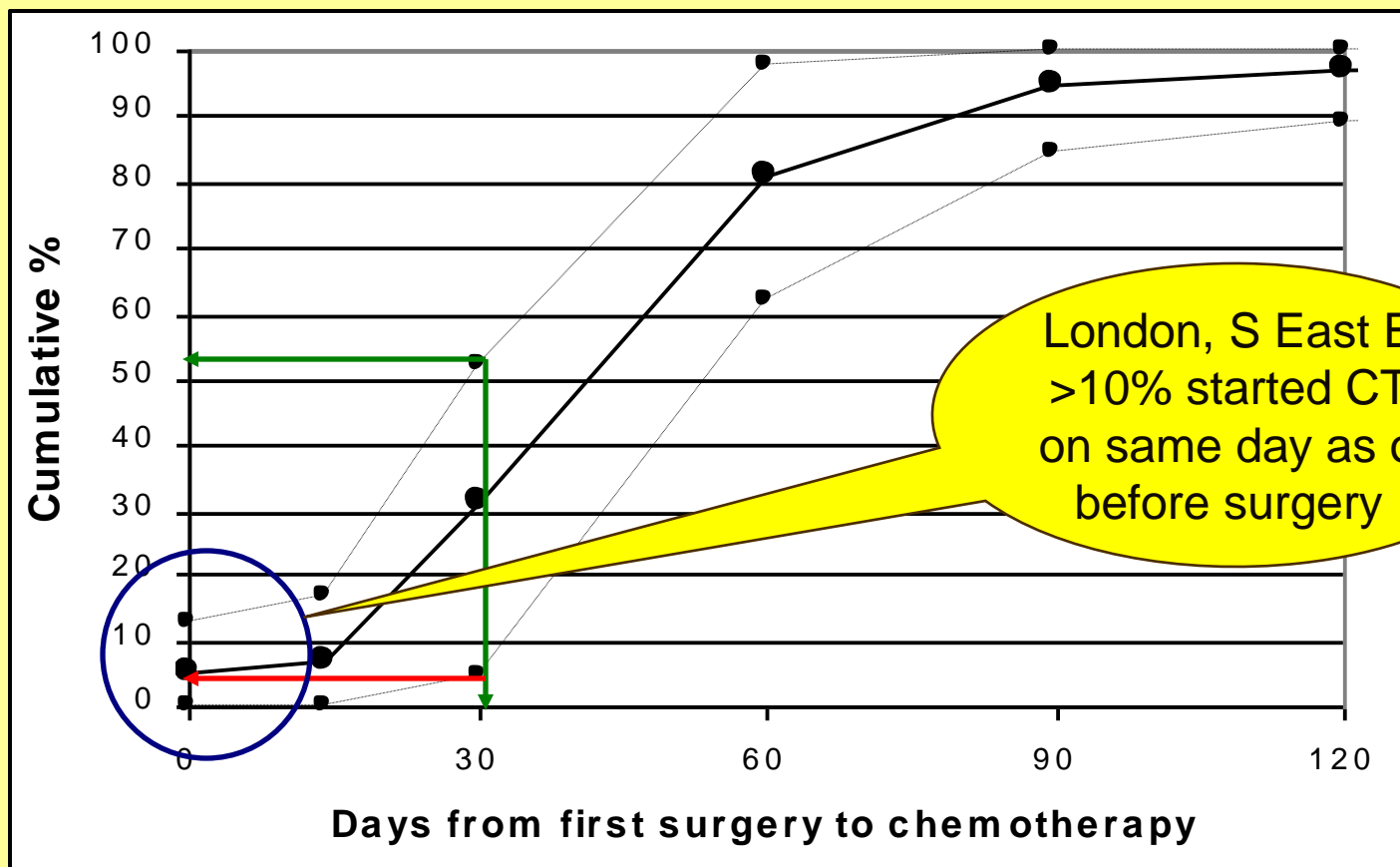
1931 cases

Time from surgery to chemotherapy



London 52%

South West 4%



Cases with no S or RT before CT excluded

603 cases

Questions about treatment



Does ER status influence the use of hormone treatment?



Does nodal status influence the use of adjuvant radiotherapy in women having conservative surgery?



Does nodal status influence the use of adjuvant radiotherapy in women having mastectomy?

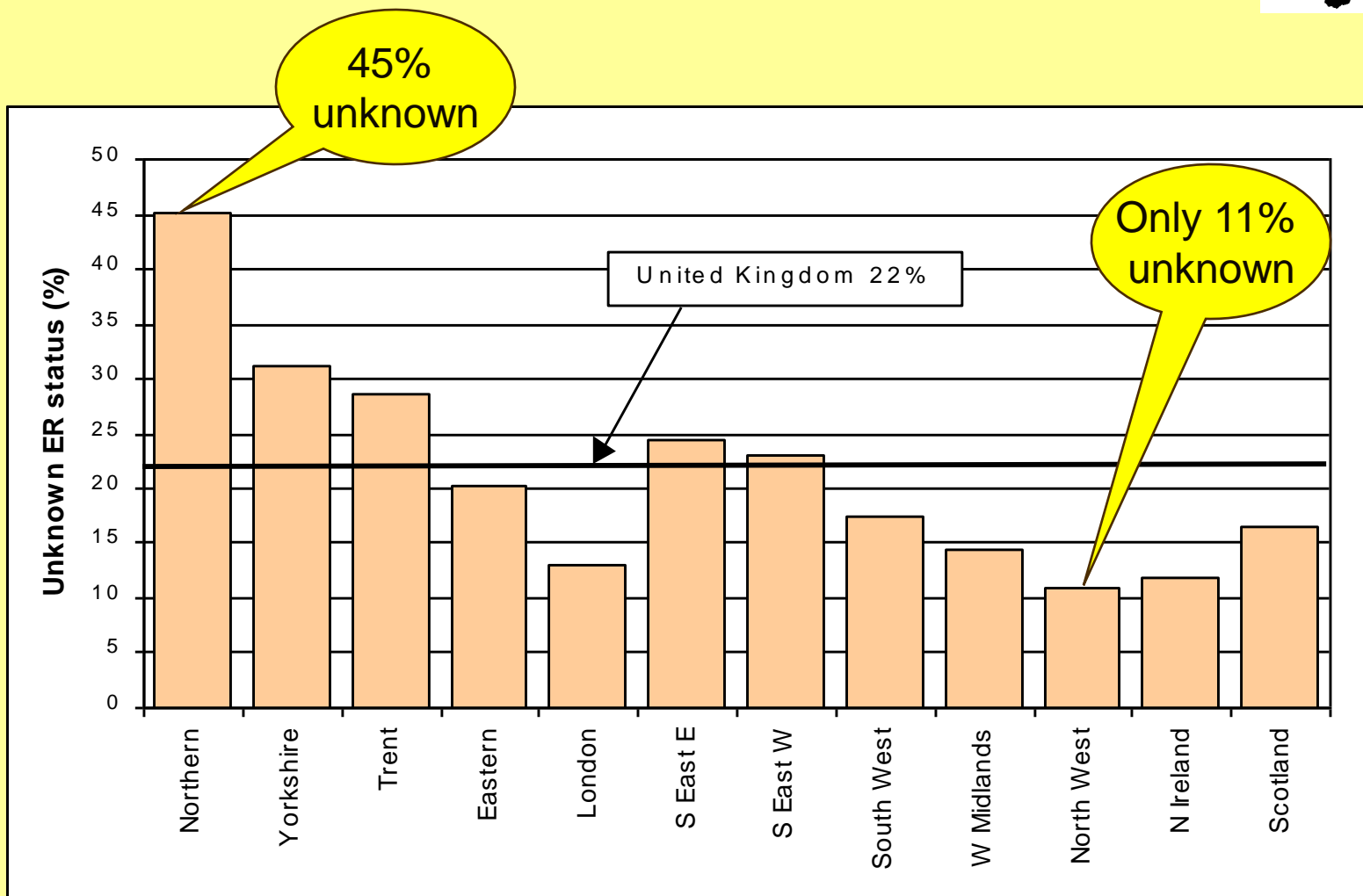


Does nodal status influence the use of adjuvant chemotherapy?

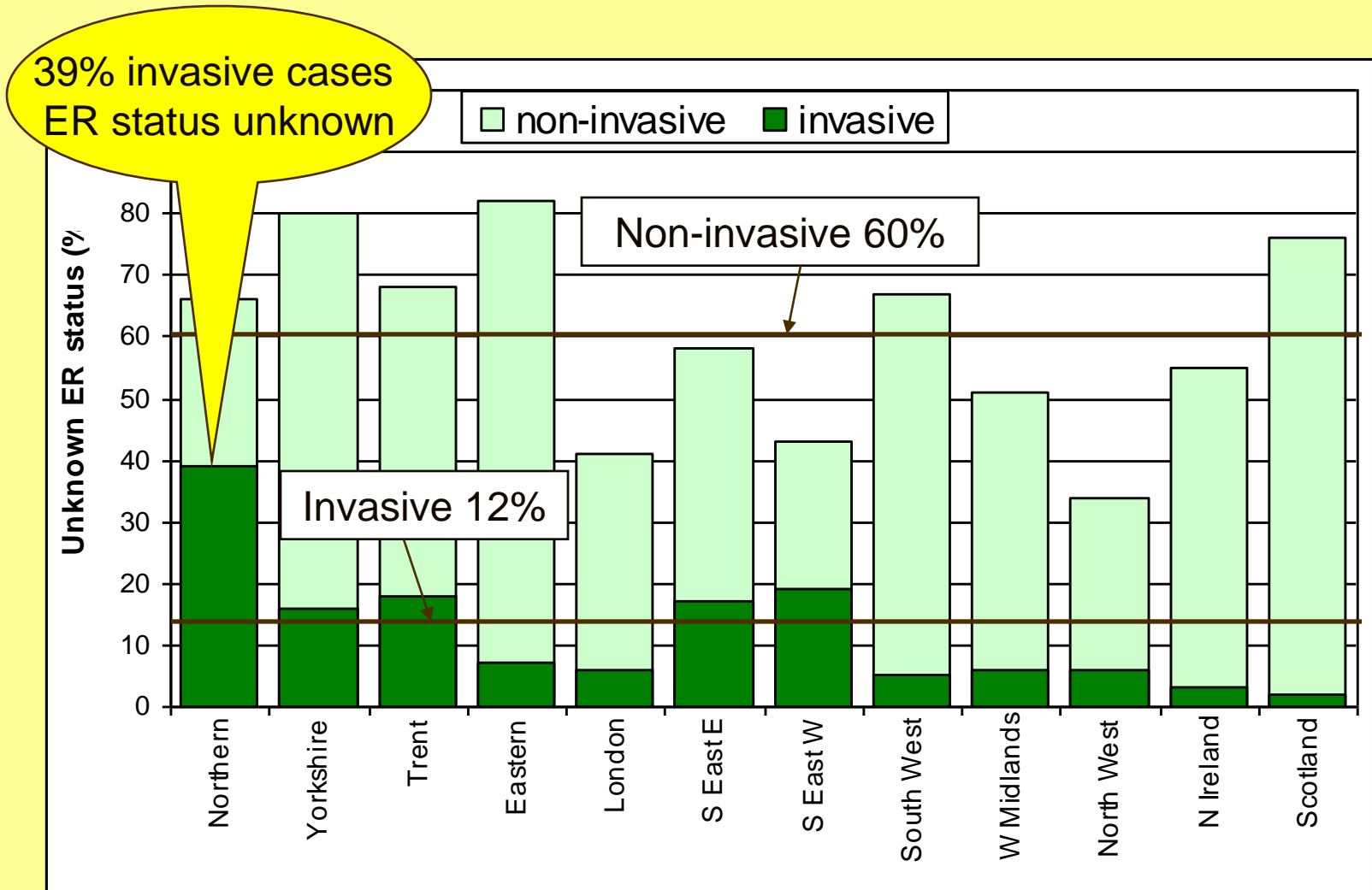
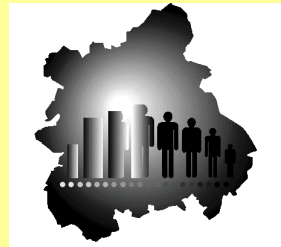


Do women with node negative, ER negative tumours receive adjuvant chemotherapy?

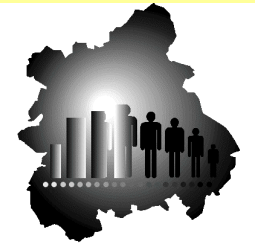
Proportion of cases with unknown ER status



Invasive and non-invasive cases with unknown ER status

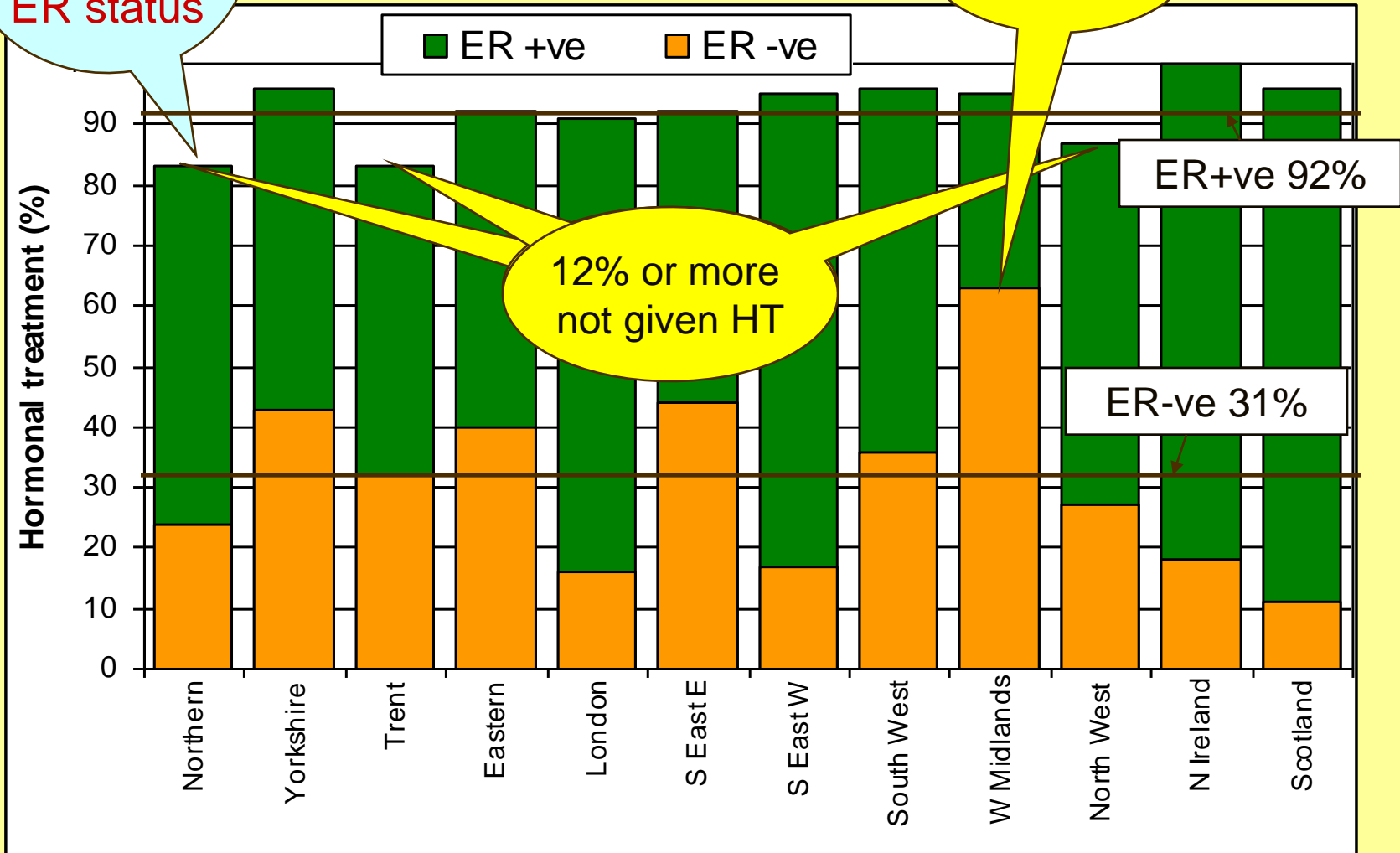


Hormone therapy - invasive tumours



45%
unknown
ER status

63% ER-ve
given HT

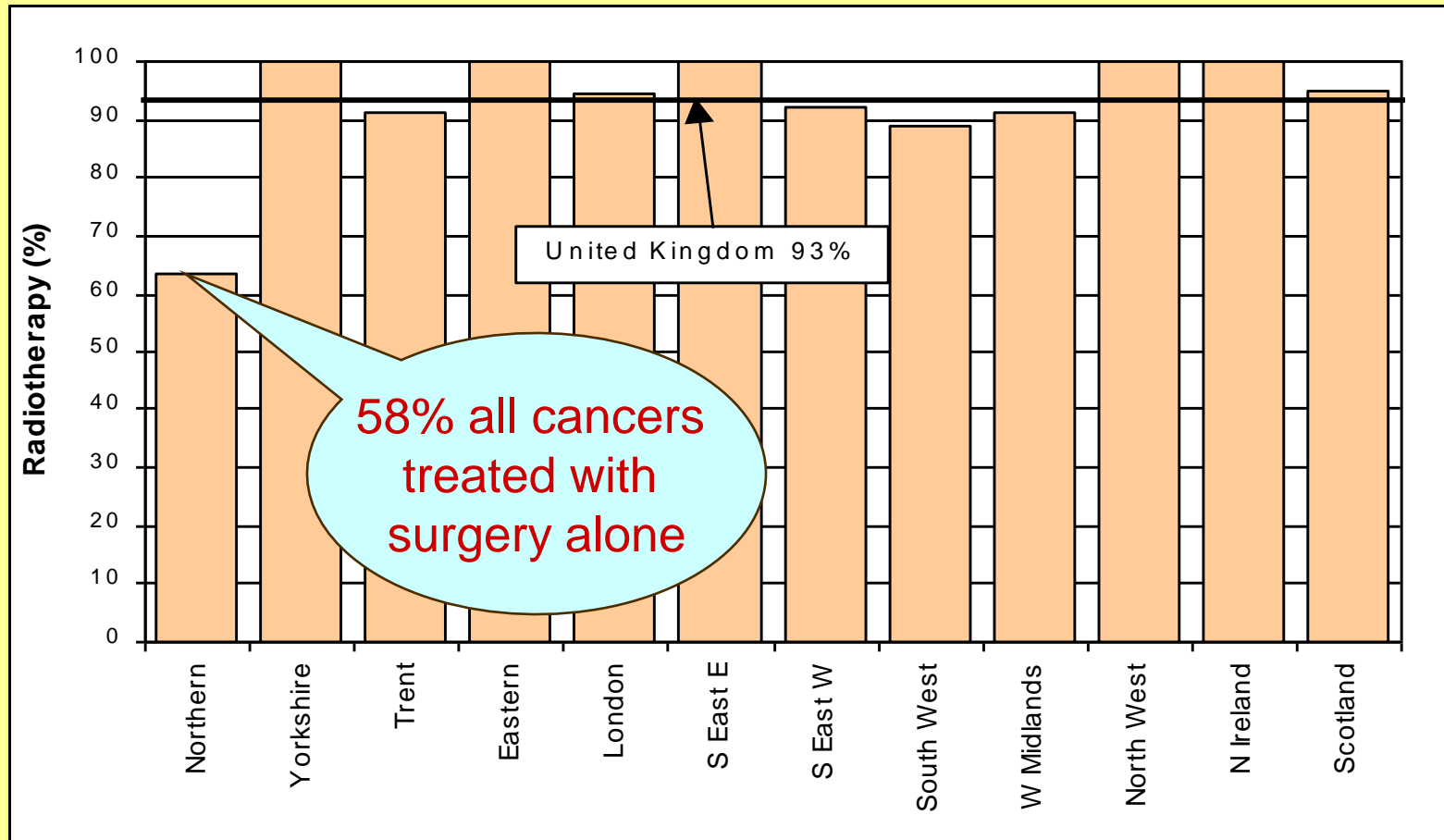


12% or more
not given HT

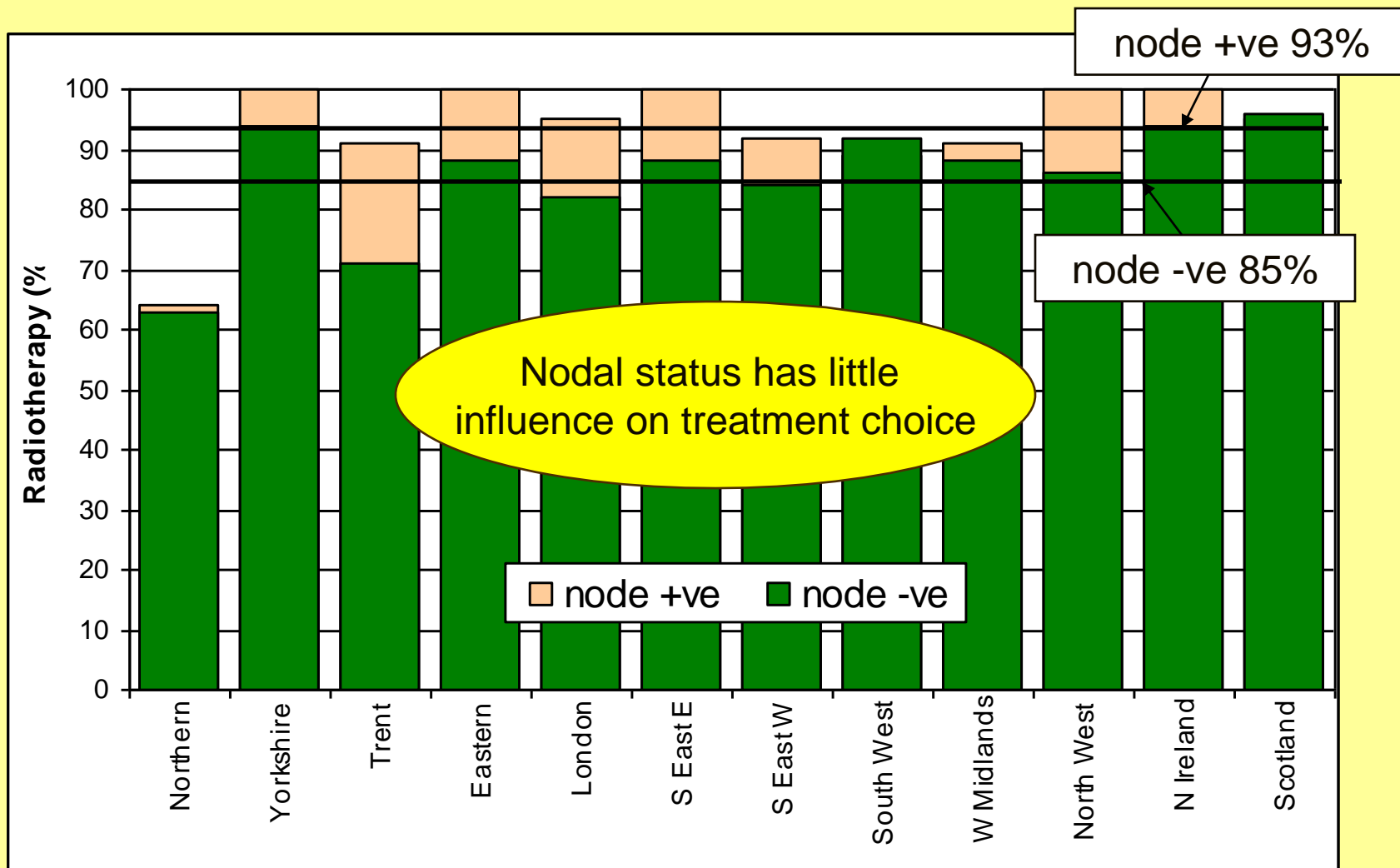
ER+ve 92%

ER-ve 31%

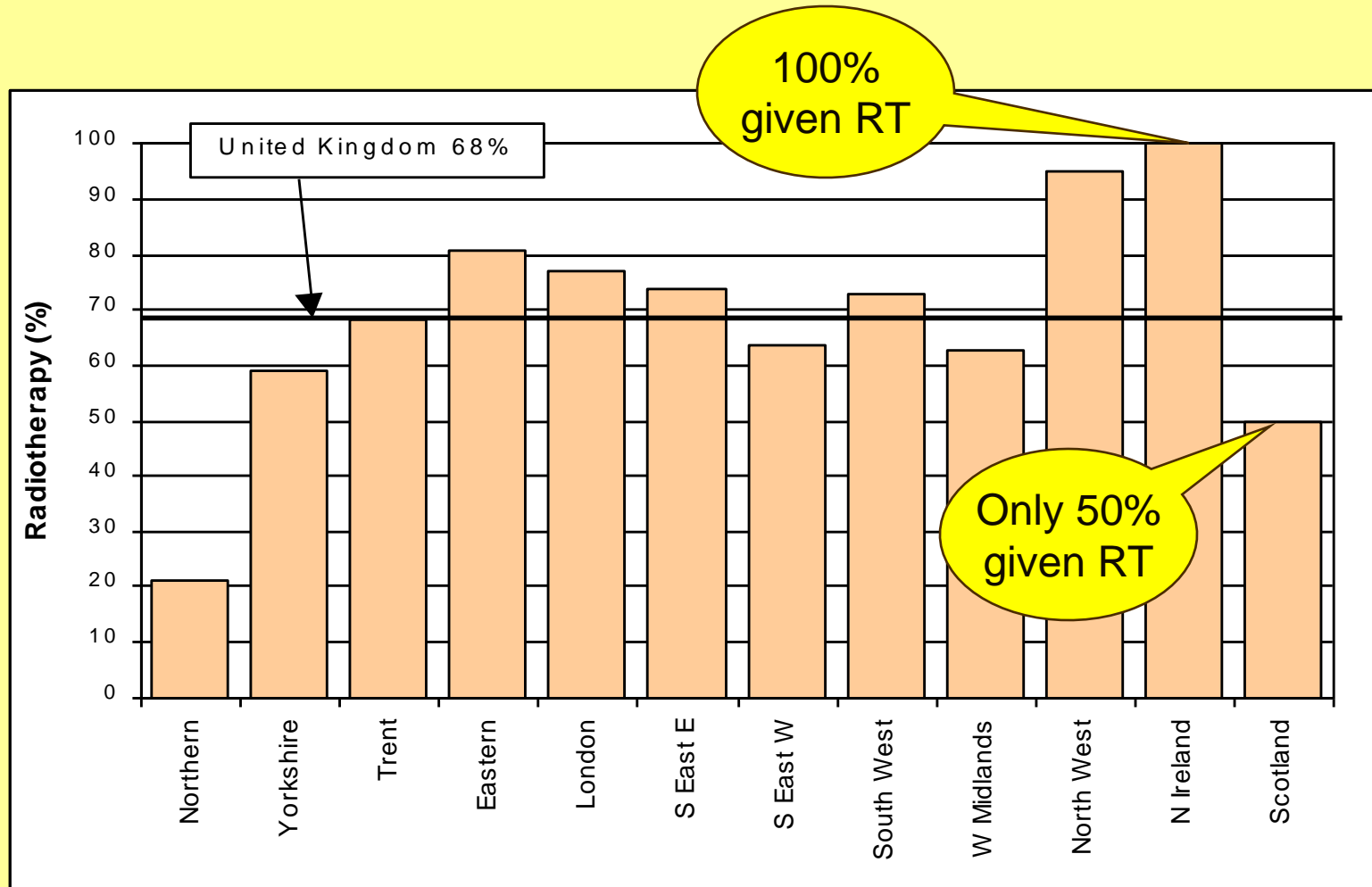
Conservatively treated invasive cancers with +ve nodes receiving RT



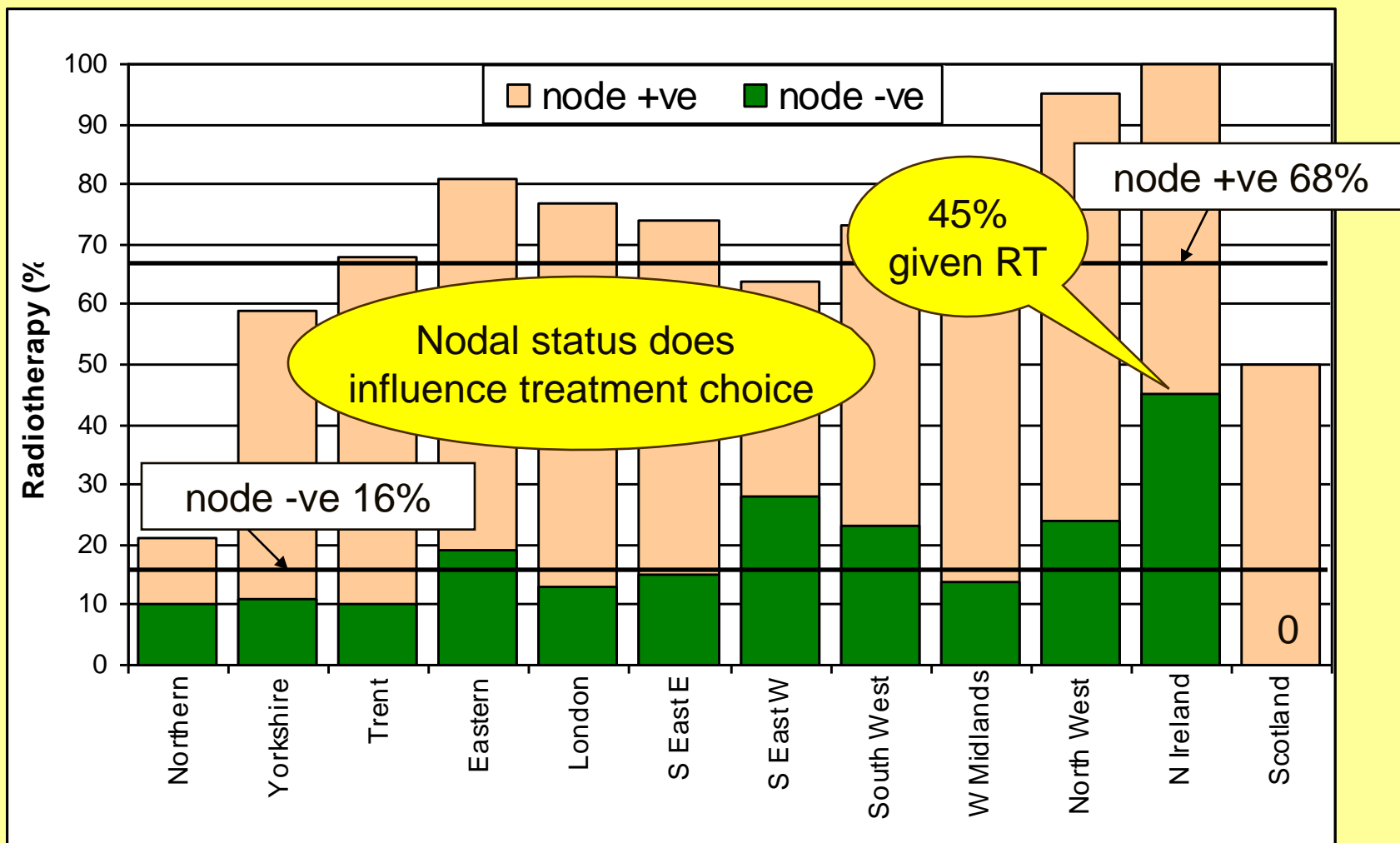
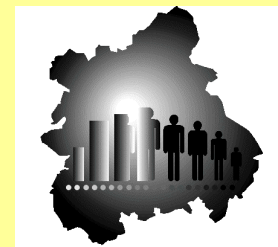
Effect of nodal status on conservatively treated invasive cancers receiving RT



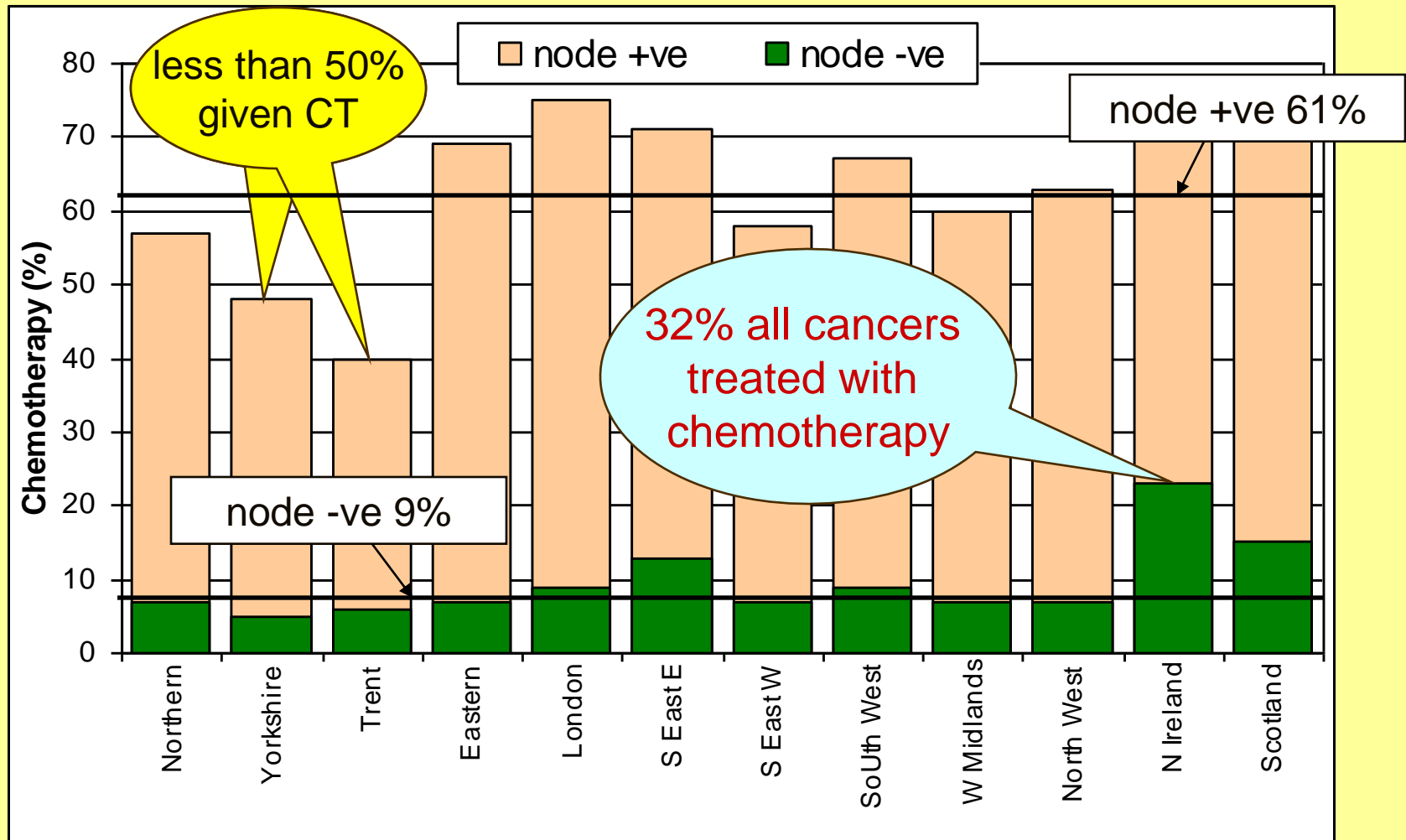
Cancers with +ve nodes treated with mastectomy and radiotherapy



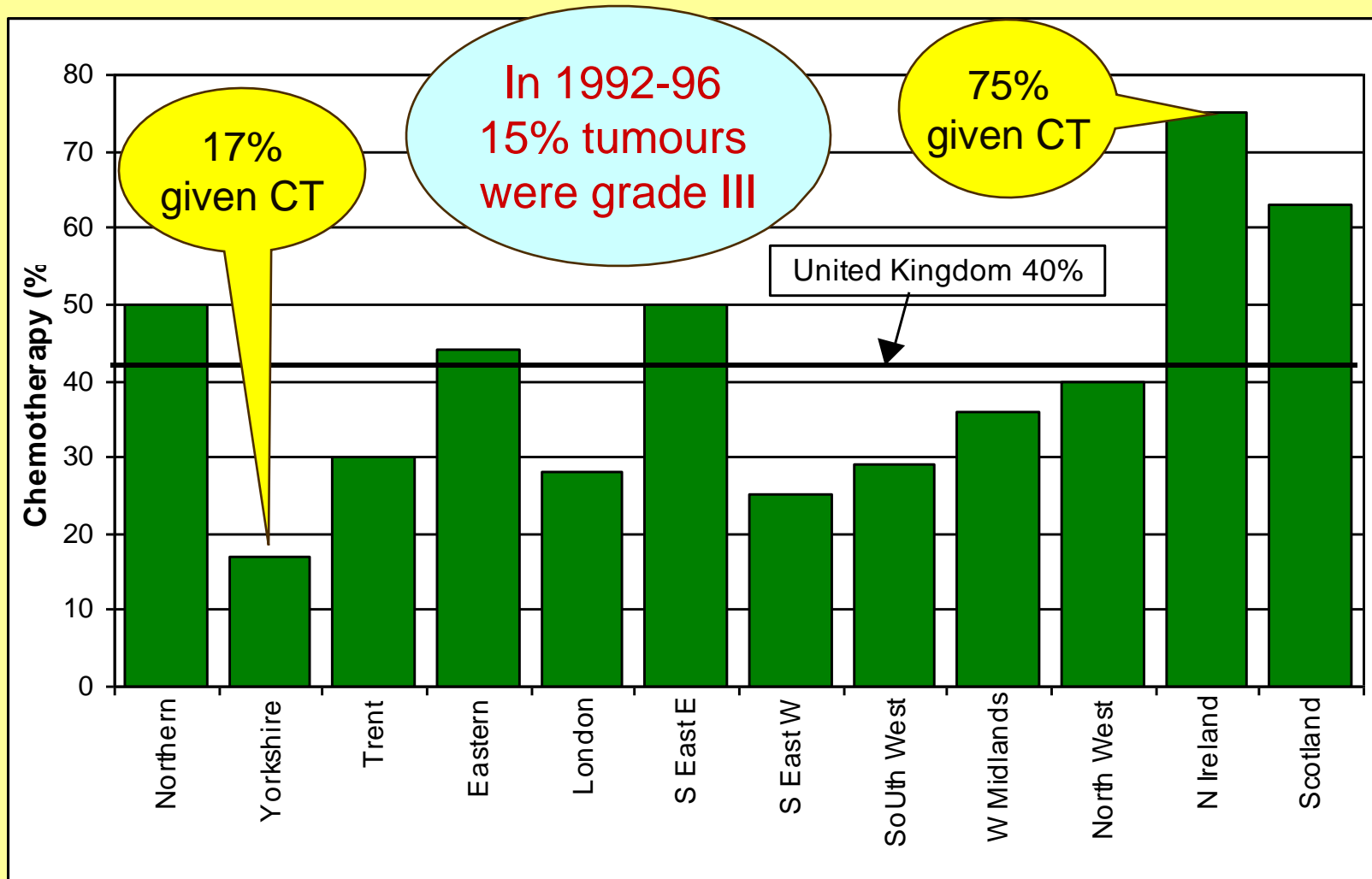
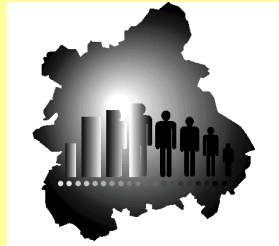
Effect of nodal status on invasive cancers treated with mastectomy receiving RT

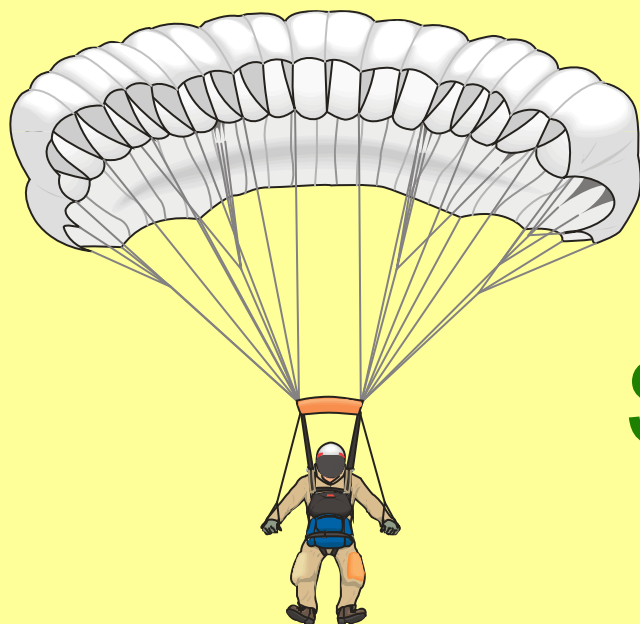
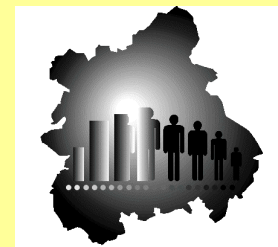


Effect of nodal status on treatment with chemotherapy



ER -ve, node -ve tumours treated with chemotherapy





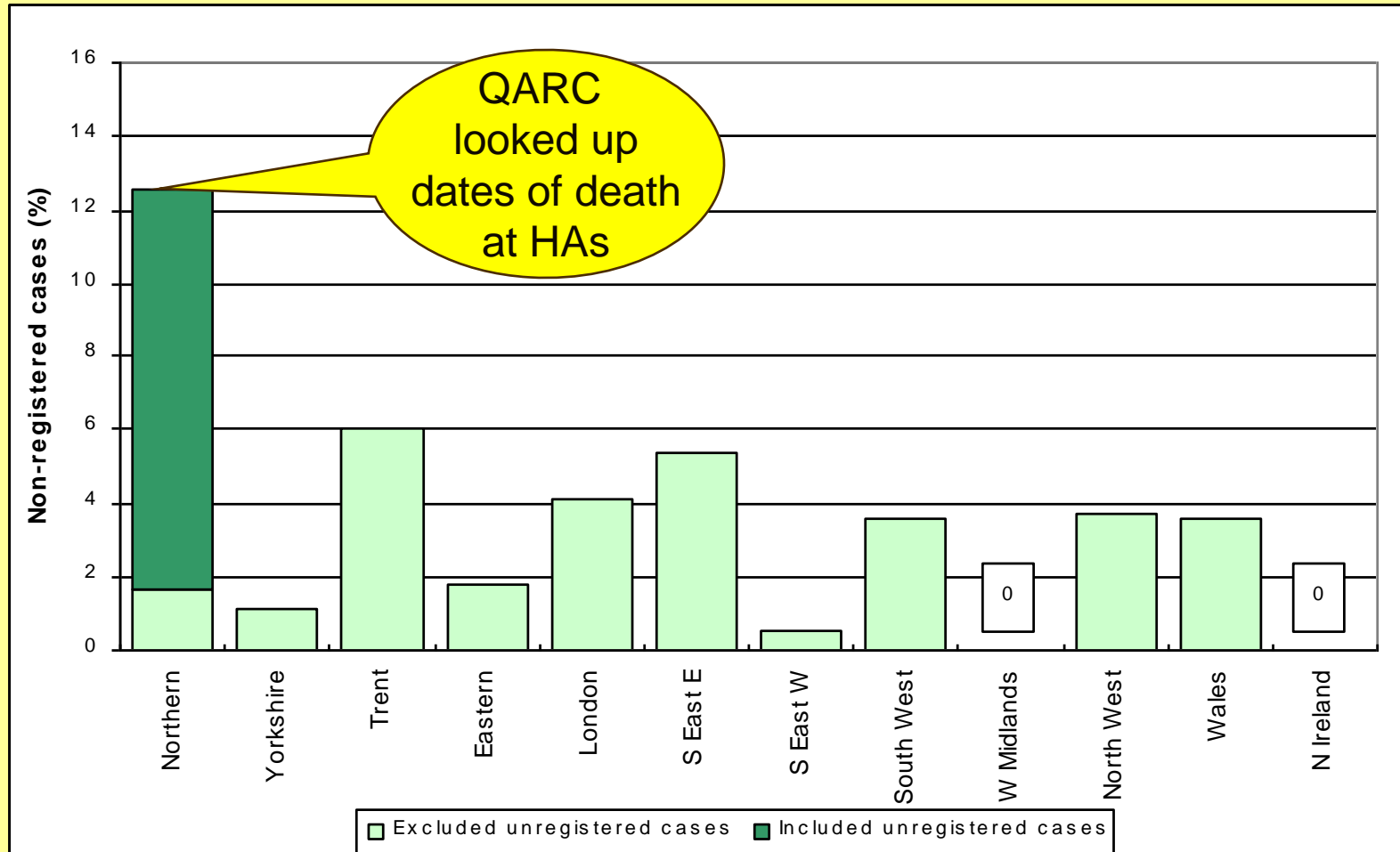
Survival analyses for 19,023 screen-detected cancers diagnosed 1992-96

Data quality

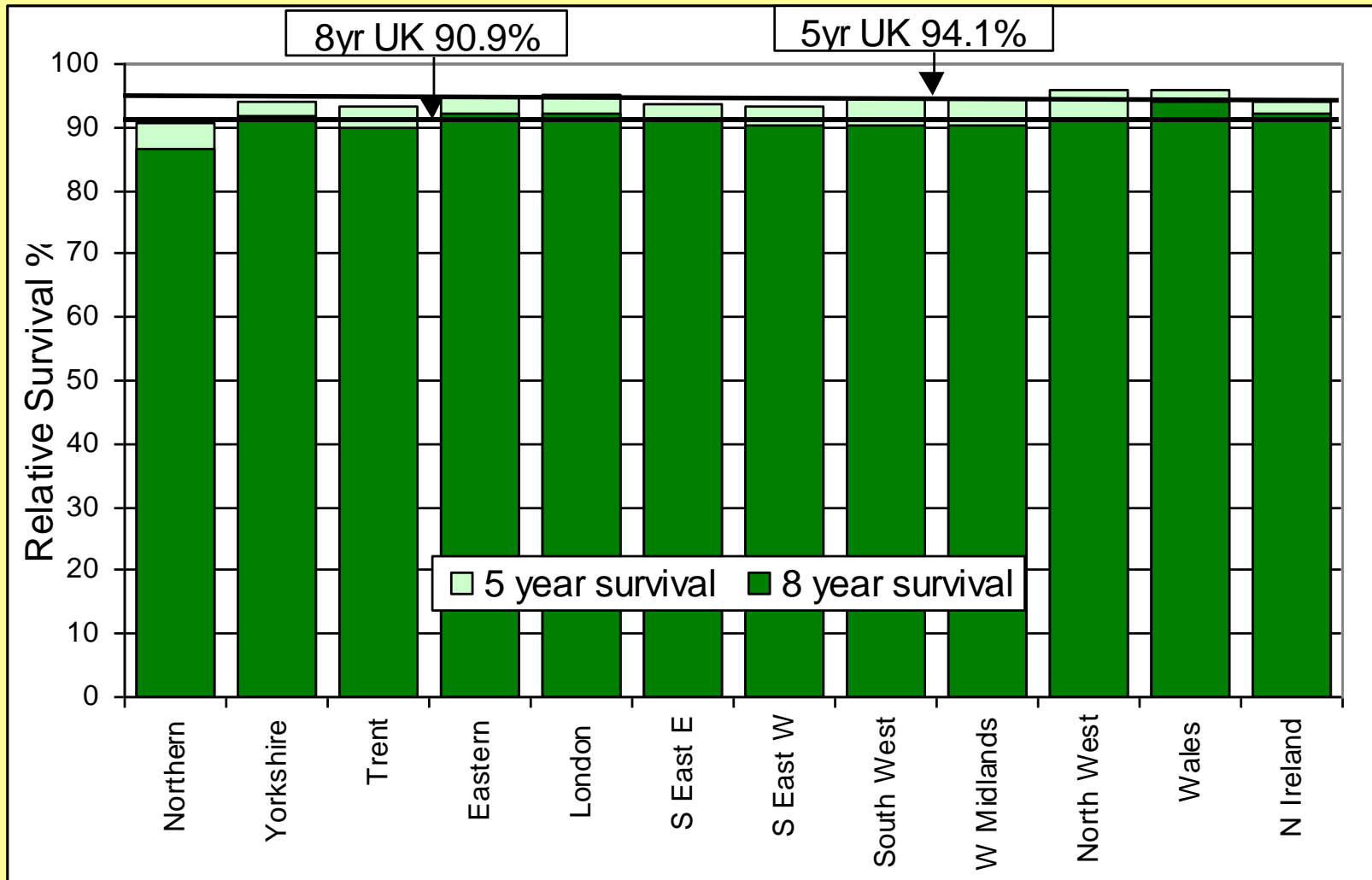
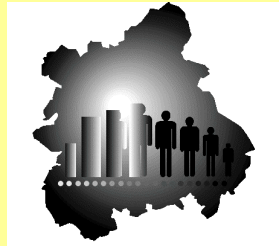


Parameter	1992/93	1993/94	1994/95	1995/96	1992-96
% Unknown Size	7	5	4	2	5 (9% North West)
% Unknown Grade	21	19	15	11	17 (28% S East E)
% Unknown Nodal Status	42	38	31	28	35 (63% North West)

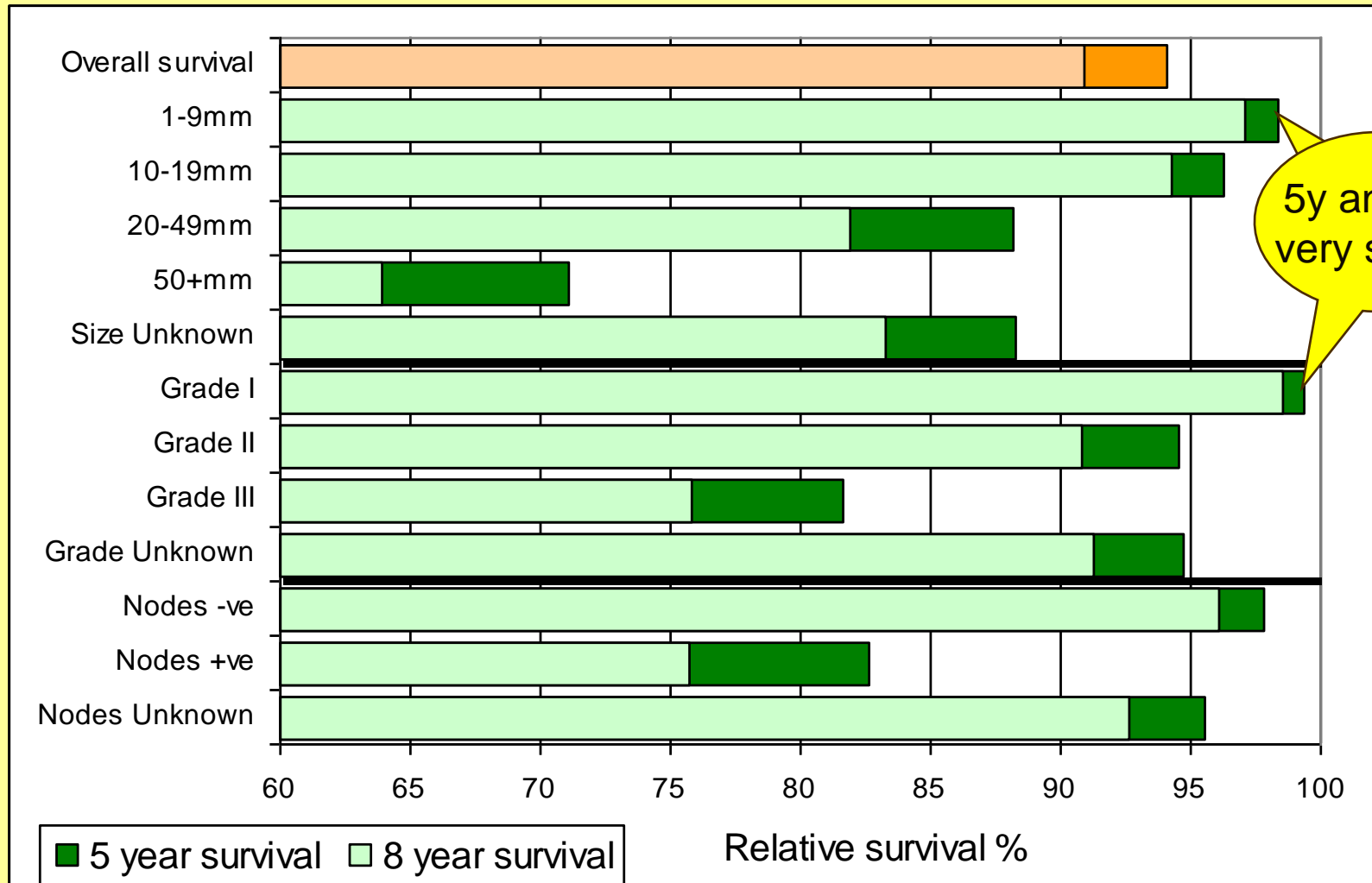
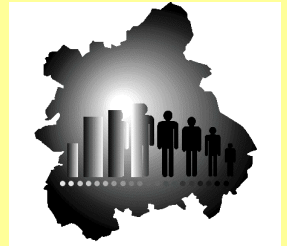
Unregistered cases



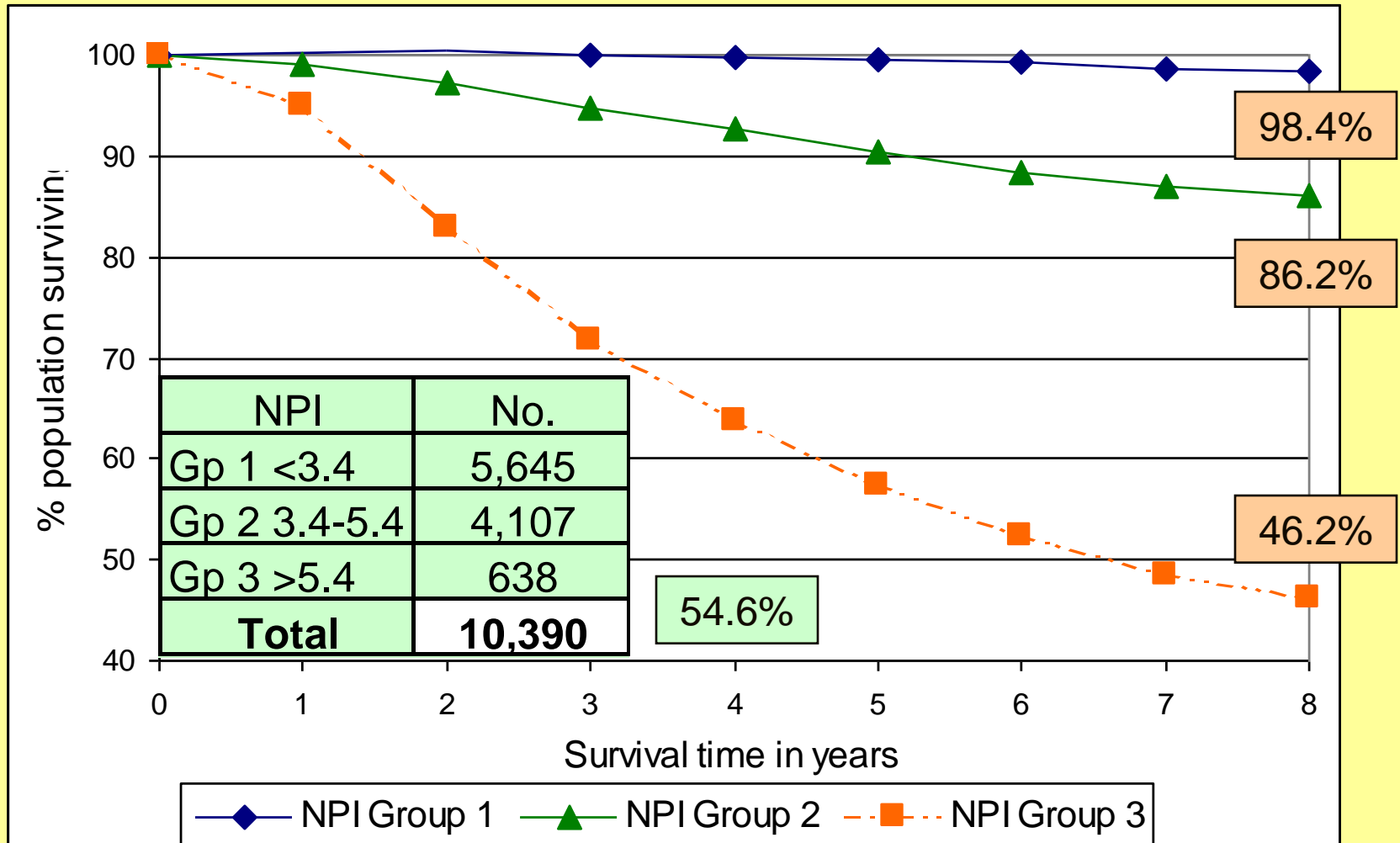
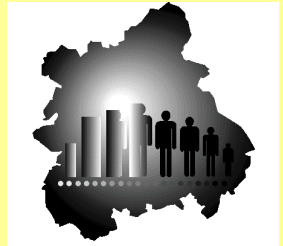
Variations in relative survival - invasive breast cancer



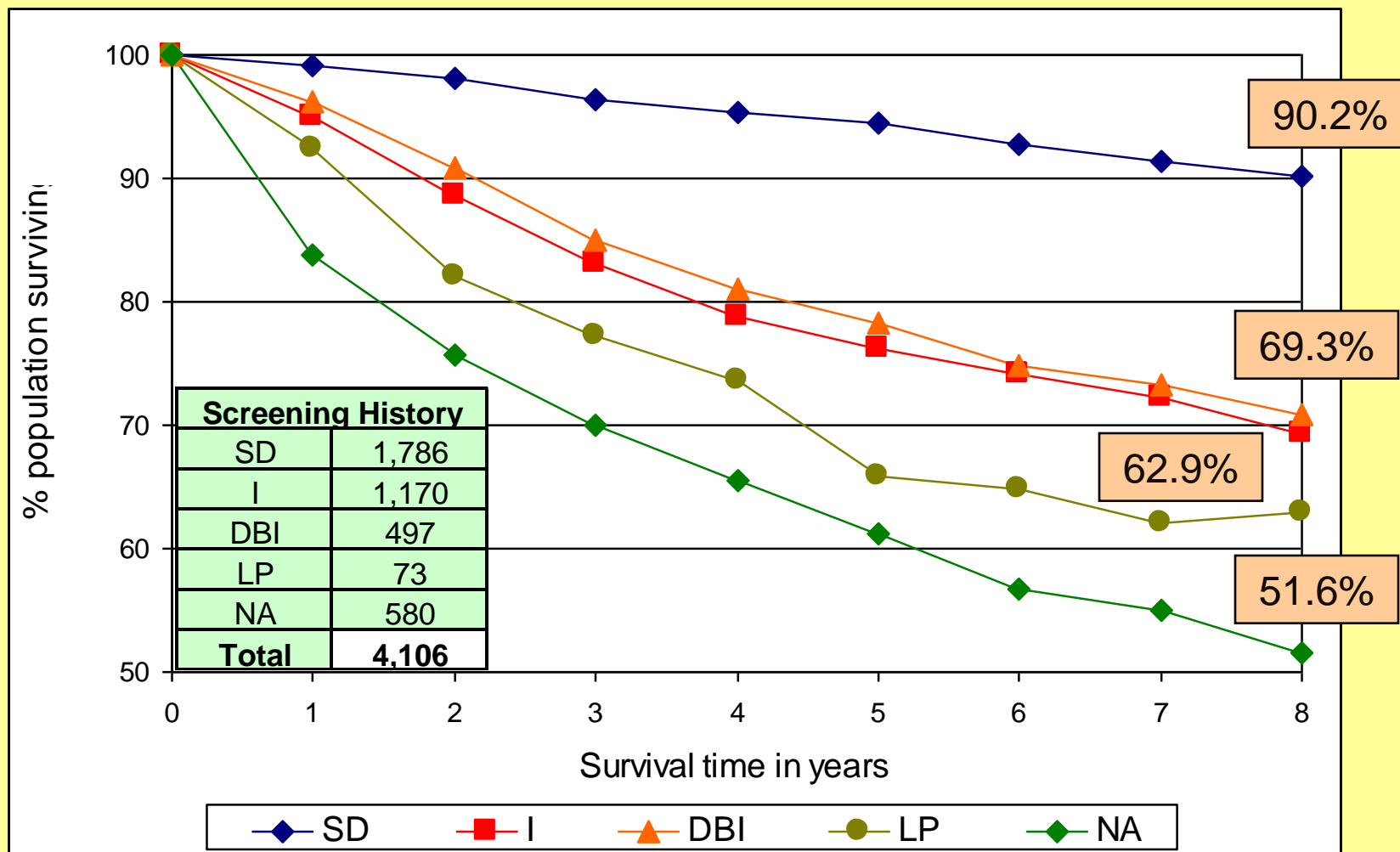
Factors affecting 5 and 8 year relative survival



Variation in survival with NPI



Variation in survival with screening history in West Midlands 1992-96





Thankyou
Thankyou