



Improved Survival of Breast Cancer Patients in the UK Breast Screening Programme

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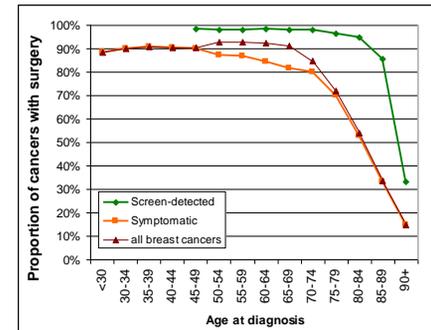
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Variation in surgical treatment with age and presentation route



- Breast cancer patients have a relatively good prognosis
- The majority of breast cancer patients have surgery
- In 2007 **82%** of the women diagnosed with breast cancer in the UK had surgery recorded

- Symptomatic **75%**
- Screen-detected **98%**
 - ❖ better prognostic factors
 - ❖ younger age
 - ❖ fewer co-morbid conditions
- Surgery decreases with age at diagnosis

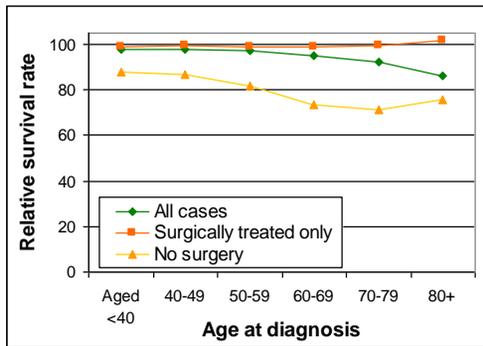


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Breast cancer survival



- For women with symptomatic invasive breast cancers, having surgery improves survival



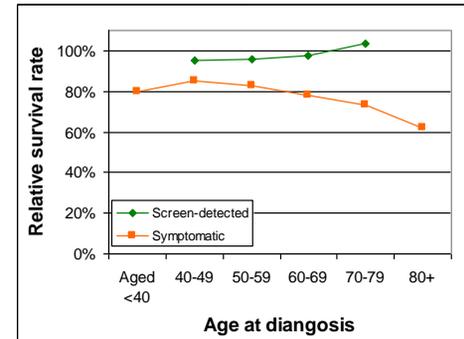
1-year relative survival for cancers diagnosed in 2007

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Variation in survival with age and presentation route



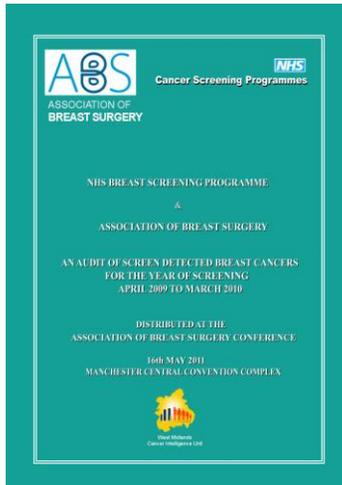
- Women with screen-detected invasive breast cancers have better survival than women with symptomatic breast cancer regardless of their age



5-year relative survival for cancers diagnosed in 2002/03

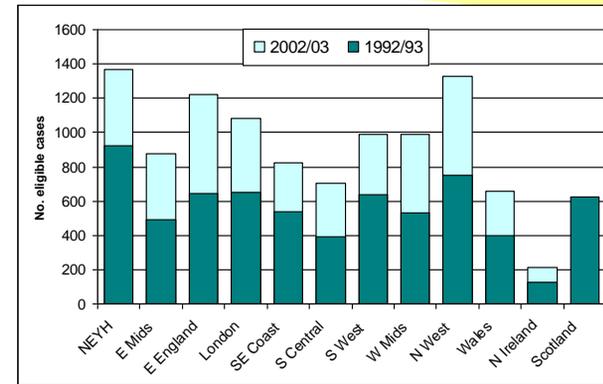
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Survival - screen-detected breast cancers diagnosed in 1992/93 and 2002/03



- Part of the annual audit of the UK NHS Breast Screening Programme
- Relative survival analysis – comparing survival to that in the general population
- Death information obtained from cancer registries
- UK level Life Tables obtained from the Office for National Statistics
- Calculations done in STATA using the Ederer II method

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Eligible cases

	1992/93		2002/03	
	No.	%	No.	%
Screen-detected cases	7,025	100	10,680	100
Cases not registered	190	3	208	2
Not primary breast cancer	111	2	181	2
Eligible cases	6,705	95	10,252	96



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Tumour behaviour and age distribution

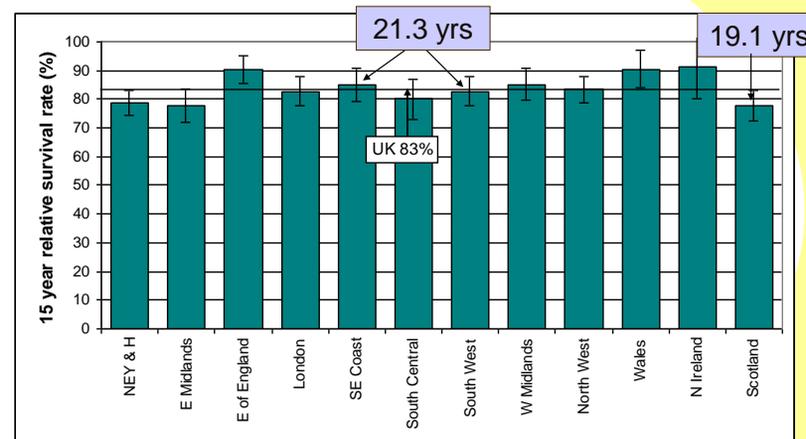


Parameter		1992/93		2002/03	
		No.	%	No.	%
Invasive status	Invasive	5,573	83	8,131	79
	Non-invasive	1,025	15	2,012	20
	Micro-invasive	107	2	109	1
	Total	6,705	100	10,252	100
Age group (invasive cancers only)	<50	87	2	111	1
	50-52	763	14	1,229	15
	53-55	924	17	1,243	15
	56-58	1,024	18	1,338	16
	59-61	1,134	20	1,377	17
	62-64	1,238	22	1,322	16
	65+	403	7	1,511	19
Total	5,573	100	8,131	100	



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15-year relative survival for screen-detected invasive breast cancers diagnosed in 1992/93



In the UK, average life expectancy at age 65 is 20.4 yrs

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Breast cancer survival

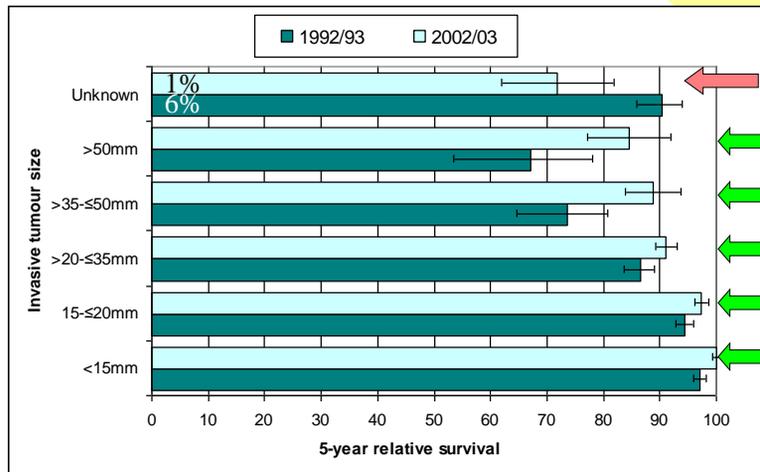


- Relative survival at **10 years** for all women diagnosed with invasive breast cancer in England in 1992/93 is **67%**
- Relative survival at **15 years** for invasive breast cancers diagnosed by **screening** in the UK in 1992/93 is **83%**
- This difference reflects the **earlier stage** at diagnosis of cancers detected by the NHS Breast Screening Programme

Parameter	1992/93		2002/03		
	No.	%	No.	%	
Invasive cancer size	<15mm	2672	48	4421	54
	15-≤20mm	1561	28	2000	25
	>20-≤35mm	842	15	1272	16
	>35-≤50mm	132	2	221	3
	>50mm	62	1	118	1
	Unknown	304	6	99	1
Invasive grade	Grade I	1552	28	2712	33
	Grade II	2059	37	3898	48
	Grade III	870	15	1333	16
	Not assessable	154	3	41	1
	Unknown	938	17	147	2
Nodal status (invasive)	Negative	2347	42	5882	72
	Positive	1010	18	1913	24
	Unknown	2216	40	336	4
NPI group (invasive)	EPG	633	11	2000	25
	GPG	884	16	2712	33
	MPG1	706	13	1778	22
	MPG2	334	6	752	9
	PPG	214	4	440	5
	Unknown	2802	50	449	6
Total	5573	100	8131	100	

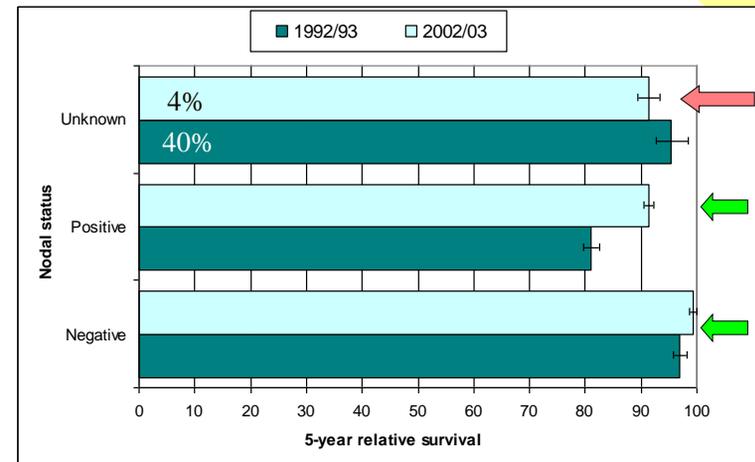


Variation in survival with invasive tumour size



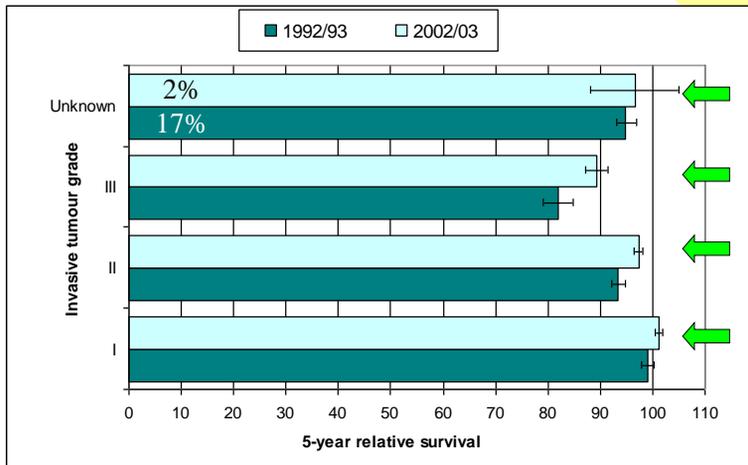
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Variation in survival with nodal status



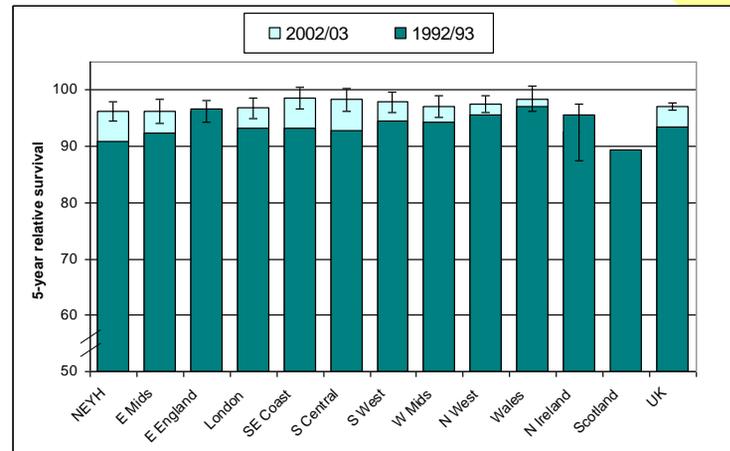
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Variation in survival with tumour grade



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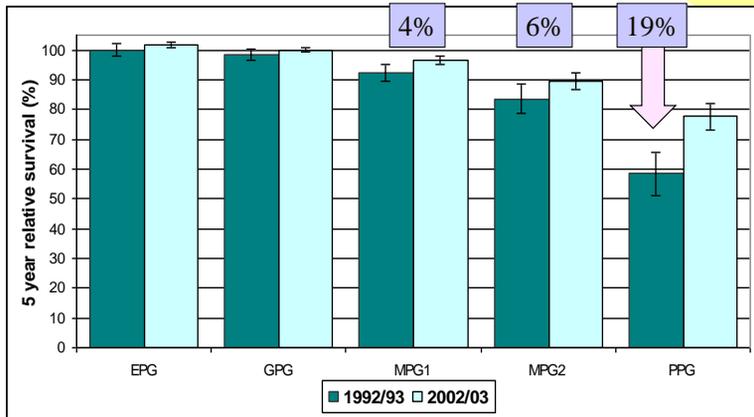
5-year relative survival rates for screen-detected invasive breast cancers



UK survival rate 1992/93 = **93.5%**, UK survival rate 2002/03 = **97.2%**

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5-year relative survival and NPI SD invasive cases 1992/93 and 2002/03



Significantly improved survival for PPG cancers due to new adjuvant therapies

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Summary



- The number of screen-detected breast cancers increased from
 - 7,025 in 1992/93 to
 - 10,680 cases in 2002/03
 - There will be further increases as the NHSBSP is expanded in England to include women aged 47-73
- The recording of tumour characteristics has improved markedly since 1992/93
 - Nodal status unknown – **40%** to **4%**
 - Grade unknown – **17%** to **2%**
 - NPI unknown – **50%** to **6%**
- 5-year relative survival has improved
 - UK survival rate 1992/93 = **93.5%**
 - UK survival rate 2002/03 = **97.2%**
- The greatest improvement in survival is for cancers in the poor prognostic group (**19%**)
 - Due to improved adjuvant therapy

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Thankyou
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