

Breast Cancer : Deprivation

NCIN Data Briefing

Introduction

In England in 2006, 41,482 patients (41,190 female, 292 male) were diagnosed with breast cancer. 89% had invasive and 11% non-invasive tumours. A deprivation score, based on the income domain of the Index of Deprivation 2007 (ID2007), was assigned to 41,347 patients (99.7%) with known English postcode. Only 15% of breast cancer patients were in the most deprived quintile of the English population and 23% were in the most affluent quintile (Table 1).

The age profile for the most affluent breast cancer patients was slightly younger: In women aged 50 – 70 years 55.7% of breast cancers in the most affluent female cohort were screen-detected compared with 51.8% in the most deprived cohort. For women aged 71-73, 24.7% of the most affluent cohort were screen-detected compared with only 9.6% in the most deprived cohort. This may be because more affluent women exercise their right to self-refer for breast screening.

KEY MESSAGE:

Breast cancer patients are more likely to be affluent than deprived. Affluent patients are more likely to have a screen-detected breast cancer. The most deprived patients have a higher mastectomy rate and received less immediate reconstruction.

Table 1 : Age and route of presentation for breast cancers diagnosed in England in 2006 according to deprivation quintile

Deprivation quintile	Total cases		Age at diagnosis (Median, Interquartile Range)	Screen-detected (%)	
	No.	%		Women aged 50-70	Women aged 71-73
Quintile 1 (Most Deprived)	6,068	15%	62 (51-74)	51.8%	9.6%
Quintile 2	7,741	19%	63 (52-74)	56.4%	15.8%
Quintile 3	8,816	21%	63 (52-74)	57.2%	16.5%
Quintile 4	9,388	23%	62 (52-73)	56.2%	19.1%
Quintile 5 (Most Affluent)	9,335	23%	61 (52-70)	55.7%	24.7%
All England	41,482	100%	62 (52-73)	55.7%	16.7%

Tumour Characteristics

Tumour size was recorded for 84% of the 4,210 surgically treated invasive breast cancers in the most deprived quintile, nodal status for 61% and grade for 95%. Where data were known, 44% were greater than 20mm in diameter, 41% were node positive and 39% were poor prognosis Grade 3 tumours (Figure 1). Patients in the most affluent quintile had better prognosis tumours; for those with with known data, 39% were greater than 20mm in diameter, 38% were node positive and 35% were Grade 3.

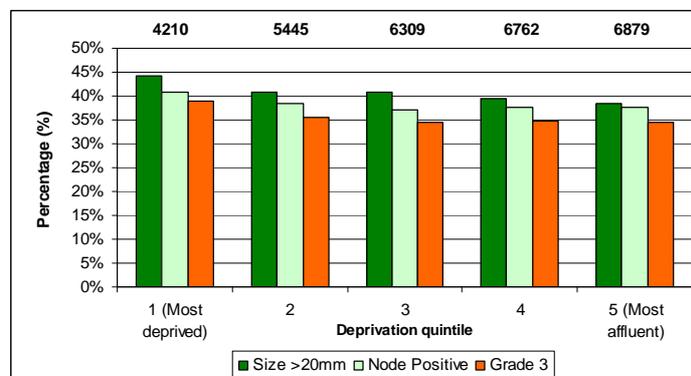


Figure 1 : The proportion of surgically treated invasive cancers with poorer prognosis in terms of size, nodal status and grade

Surgical Treatment

Of the patients with breast cancer having surgical treatment, those in the most affluent quintile had a lower mastectomy rate (40% compared with 48% of patients in the most deprived quintile) but more had more than one operation (22% compared with 19%) (Table 2). For patients treated with mastectomy, those in the most deprived quintile had less immediate reconstruction than those in the most affluent quintile (34% compared with 43%).

For surgically treated breast cancers with nodal assessment, only 24% of patients in the most deprived quintile had a sentinel lymph node biopsy compared with 30% in the most affluent quintile.

Table 2 : Surgical treatment for breast cancers diagnosed in England in 2006 according to deprivation quintile

Deprivation Quintile	Mastectomy rate	Repeat operation rate	Sentinel lymph node biopsy rate	Immediate reconstruction rate
Quintile 1 (Most Deprived)	48%	19%	24%	34%
Quintile 2	43%	20%	25%	35%
Quintile 3	41%	21%	27%	35%
Quintile 4	42%	21%	27%	39%
Quintile 5 (Most Affluent)	40%	22%	30%	43%

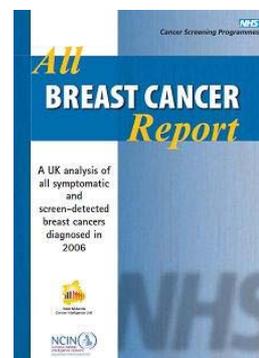
Further Information

This data briefing is based on the All Breast Cancer Report "A UK analysis of all symptomatic and screen-detected breast cancers diagnosed in 2006" which includes detailed methodology, a list of data sources and references.

The All Breast Cancer Report is available to download from the NCIN website www.ncin.org.uk, the NHS Breast Screening website www.cancerscreening.nhs.uk and the WMCIU website www.wmpho.org.uk/wmciu/.

This briefing is one of a series published on the main findings from the 2009 All Breast Cancer Report. Copies of the briefings on Ethnicity and the Elderly are available for download from the NCIN website.

The management of non-invasive breast disease is studied in the Sloane Project which is funded by the NHS Breast Screening Programme. More information can be found at www.sloaneproject.co.uk.



FIND OUT MORE:

West Midlands Cancer Intelligence Unit

WMCIU is the National Cancer Intelligence Network lead cancer registry for breast cancer

<http://www.wmpho.org.uk/wmciu>

Other useful resources within the NCIN partnership:

Cancer Research UK CancerStats – Key facts and detailed statistics for health professionals

<http://info.cancerresearchuk.org/cancerstats/>

The NCIN is a UK-wide initiative, working closely with cancer services in England, Scotland, Wales and Northern Ireland, and the National Cancer Research Institute (NCRI), to drive improvements in standards of cancer care and clinical outcomes by improving and using the information it collects for analysis, publication and research. In England, the NCIN is part of the National Cancer Programme.