

Bowel Cancer Screening

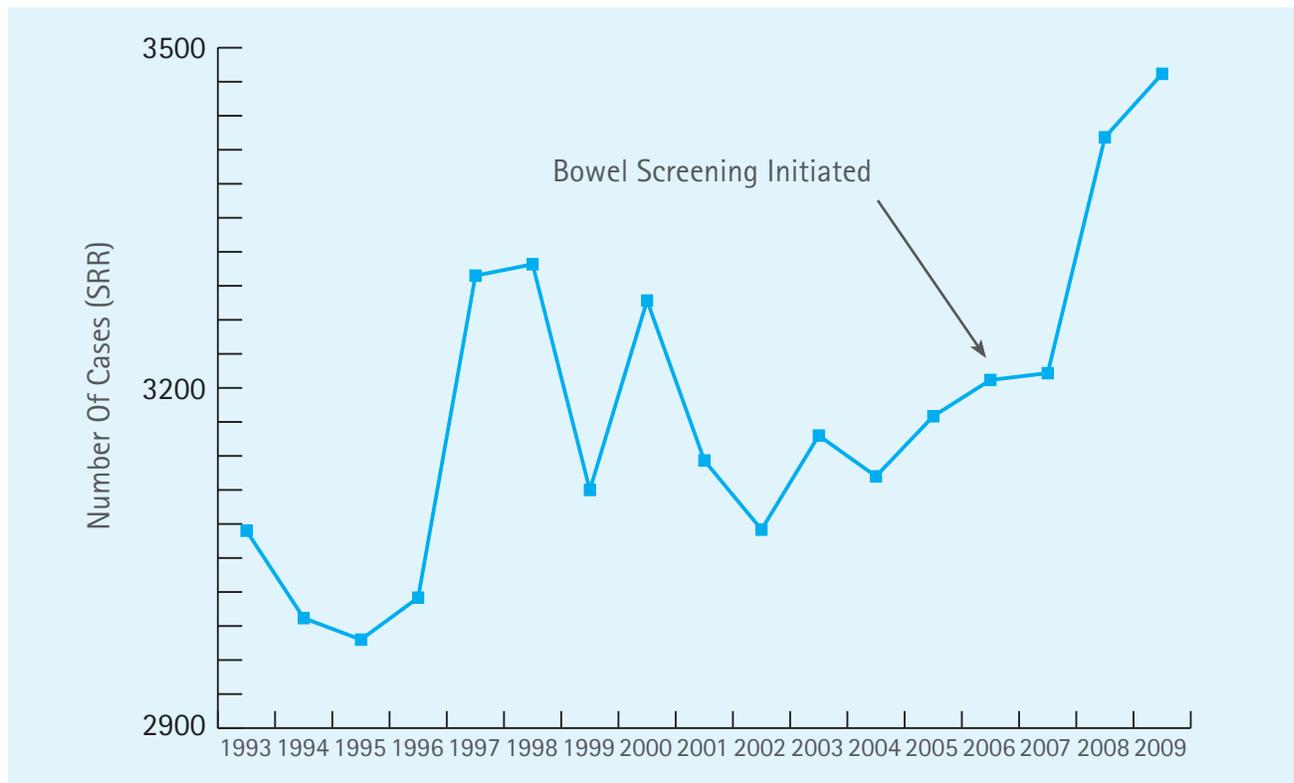
A Review Of The Six South East London Boroughs

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Figure 1

A Graph showing the incidence of bowel cancer (indirectly standardised registration ratios) for all ages from 1993-2009 for London
Source:- Compendium of Population Health Indicators – National Office of Statistics.

This paper reviews bowel cancer screening in the six southeast London Boroughs of Lambeth, Southwark, Lewisham, Bexley, Bromley and Greenwich; including trends in incidence, mortality, screening uptake, positivity and cancer detection. Bowel cancer is the third most common cancer in the UK and the second most common cause of cancer death in the UK (Cancer Research UK). The incidence of colorectal cancer is increasing and thus a high priority for public health.



A major initiative to reduce mortality from the disease has been the introduction of the National Health Service Bowel Cancer Screening Programme (NHSBCSP). Regular bowel cancer screening has shown to reduce the mortality risk from bowel cancer by 16% (Bowel Cancer Screening.co.uk). Despite the increase in incidence, the mortality rate from bowel cancer has declined nationally, since the mid 1970s for females and the early 1990s for males see figure 2. Randomised controlled trials have confirmed that bowel cancer mortality can be significantly decreased by bowel cancer screening. The main aim of the screening is to detect the bowel cancer at an early stage (in asymptomatic individuals); early treatment has shown to be more effective. The NHSBCSP in England was phased in over three years commencing in 2006 for men and women between the age of 60–69 years. They are screened every two years. In England people over the target age group can opt-in to the scheme and request a bowel cancer screening kit. In April 2010 the age range was extended to include individuals between 70-75.

The current programme offers a screening test kit delivered through the post which tests for occult blood in the faeces, FOBT (faecal occult blood test).

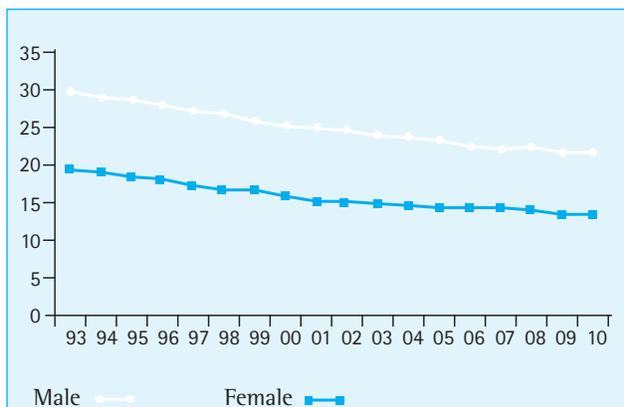


Figure 2.
A Graph comparing male and female mortality over time.

The incidence of bowel cancer in 2009 is higher in females compared to males in all boroughs except for Southwark where incidence is higher in males.

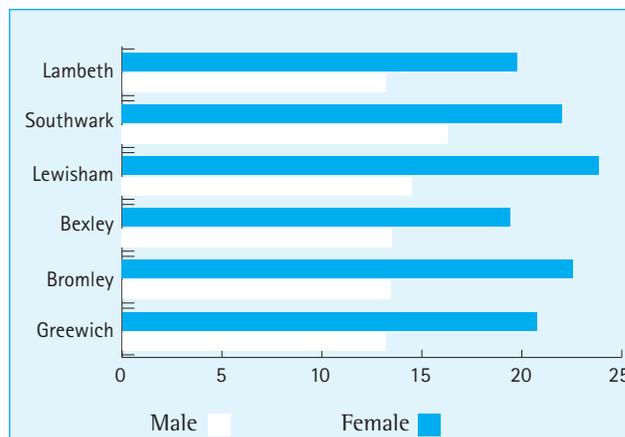


Figure 3
Shows the incidence of bowel cancer (indirectly standardised registration ratios (SRR) for all ages in 2009 for the 6 south east London boroughs. Source:- Compendium of Population Health Indicators – National Office of Statistics

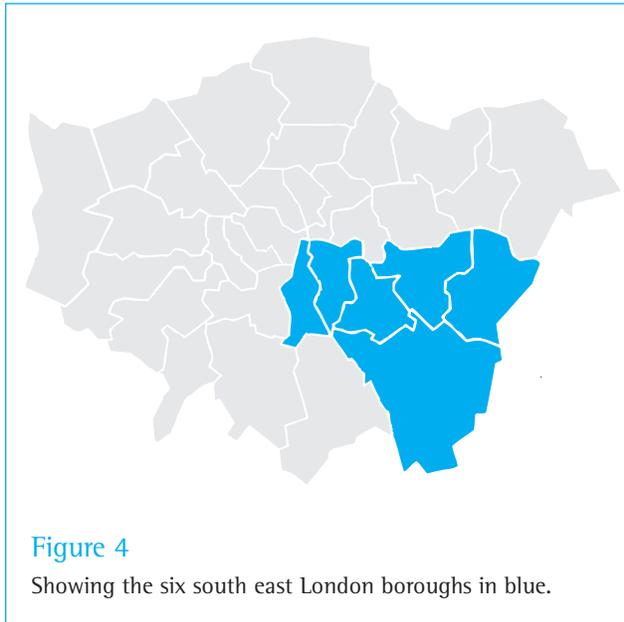
High Risk Groups

Suggested risk factors for bowel cancer include family history, increasing age and lifestyle factors such as increased BMI, diets high in alcohol, red meats and low in fibre. Medical conditions that increase the risk of bowel cancer include polyps or adenomas which may develop into cancer. Crohns disease and ulcerative colitis may increase the risk of bowel cancer. An individual is at a higher risk of re-developing bowel cancer if they have previously been diagnosed with it or had a previous diagnosis of ovarian cancer, testicular cancer or lymphoma. Approximately one in 10 bowel cancers are caused by inherited conditions namely hereditary non polyposis colorectal cancer (HNPCC) or familial adenomatous polyposis (FAP). People of Ashkenazi Jewish origin are at a higher risk of bowel cancer.

Screening for bowel cancer

- Individuals (male and female) ages 60-70 (75)
- Biannual screening
- Invitation letter followed by screening kit
- Return of screening kit leads to results letter to the client and GP
- Positive results are followed up with referral for further diagnostic tests

Individuals at high risk are offered screening at a younger age, high risk includes having the inherited condition FAP (familial adenomatous polyposis), a strong family history, previous polyps removed, previous bowel cancer, or the inherited condition non polyposis colorectal cancer (HNPCC).



Analysis of Data

The six southeast London boroughs -Lambeth, Southwark, Lewisham, Bexley, Bromley, and Greenwich has a total population of 1,831,658. Of that population 64,097 are aged between 60-69 the current age group invited for screening in south east London. The number of individuals invited for screening between October 2011to September 2012 was 74,173.

Table 1.

The population structure for south east London (October 2011-September 2012)
Source:-London Programme Hub Quarterly Report

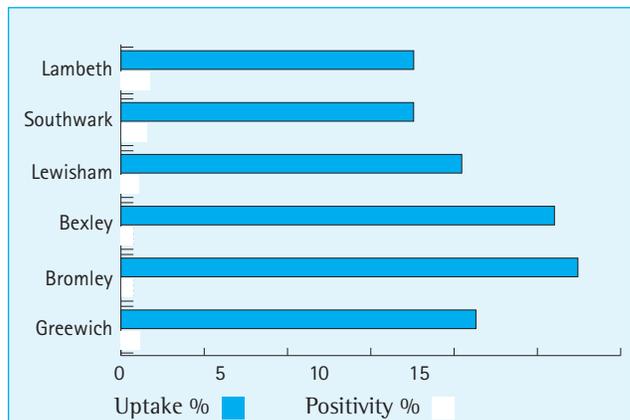
Boroughs	No of GP Practices	Total Population	Pop aged 60-69 Apr 2012-Mar 2013	Pop aged 70-74 Apr 2012-Mar 2013
Bexley	29	229323	11607	3150
Bromley	49	323159	17833	6849
Southwark	47	321036	7894	1948
Lambeth	52	377801	9247	2306
Lewisham	47	303294	8806	2484
Greenwich	46	277039	8710	2280
Totals	270	1831658	64097	19017

Table 2

The number of individuals adequately screened with uptake and positivity as a percentage for the 6 south east London boroughs from October 2011-September 2012

Source:-London Programme Hub Quarterly Report

Boroughs	Invited for screening	Adequately screened	Positivity %	Uptake %
Lambeth	12437	4371	3.48	35.15
Southwark	10079	3542	3.08	35.14
Lewisham	10617	4345	2.23	40.92
Bexley	13148	6843	1.51	52.05
Bromley	17178	9423	1.40	54.86
Greenwich	10734	4575	2.30	42.62
Total	74193	33099		



The uptake, (that is the proportion of people who send in a completed test after receiving an invitation and kit) is one of the key factors when determining how successful the screening initiative is Barret et al, 2002. The national target for bowel cancer screening uptake is 60% and all six south east London boroughs are below the national target. The uptake of bowel cancer screening was highest in Bromley with an uptake of 54.86% and lowest in Southwark with an uptake of 35.14%.

There is evidence that demonstrates certain black and ethnic minorities (BME) in the United Kingdom participate less in bowel cancer screening compared to the general population, Robb et al, 2008. There are a large proportion of ethnic and black minority groups in Lewisham, Lambeth and Southwark. Szczepura et al reported that ethnic minority groups

demonstrated significantly lower unadjusted bowel screening uptake, it was concluded that cultural attitudes, perceived lack of self efficacy and fear of cancer, lie at the heart of why ethnic minority groups do not participate in screening

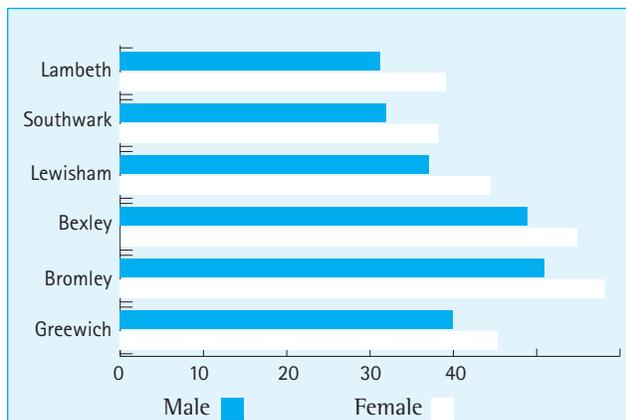


Figure 6

The percentage uptake of bowel screening in 2010 by gender in the six southeast London boroughs. Source:- London Programme Hub Quarterly Report

There is a difference in uptake of bowel cancer screening between genders. Female uptake is significantly higher than male. There is some evidence that younger age groups and males have a lower uptake of bowel cancer screening (Weller et al, 2007;). There is still no clear reasons why the uptake is lower in men. However, attitudes towards health and preventative services differ between genders (Cullati et al, 2009,) and require tailored approaches to address gender-specific hurdles to bowel cancer screening uptake.

Table 3

The percentage of those referred for diagnostic test who attended and outcome (October 2011-September 2012)

Borough	Individuals that attended a diagnostic test after a positive result	Individuals with normal findings after diagnostic test	Individuals with abnormal findings from diagnostic test	Individuals with cancer detected
Lambeth	175	39	56	5
Southwark	105	22	27	5
Lewisham	115	18	34	8
Bexley	138	17	41	7
Bromley	199	34	54	13
Greenwich	143	35	37	5
Totals	875	165	249	43

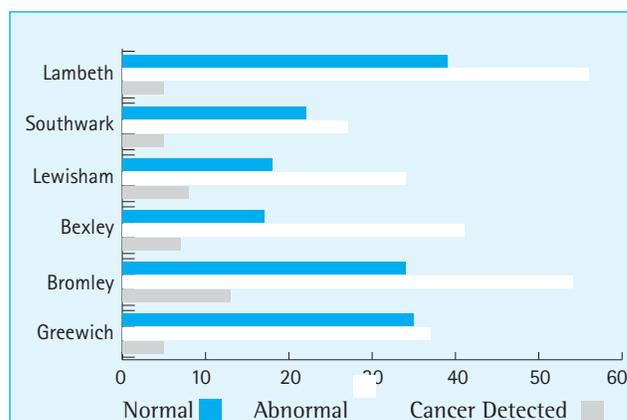


Figure 7

Shows the outcome of diagnostic test by borough (October 2011-September 2012). Source:- London Programme Hub Report Q1 Report.

Table 4

This table compares incidence, mortality, uptake, positivity and cancer detected against the six south east boroughs. Source:- NHS IC Indicator Portal – National Office of statistics

Boroughs	Incidence (DSR) of bowel Ca 2009	Mortality DSR 2009	Diagnostic Uptake Rate (percentage) October 2011-September 2012	Positivity (percentage) October 2011-September 2012	Percentage of individuals with cancer detected
Lambeth	59.8	16.49	35.15	3.48	2.86
Southwark	49.43	18.63	35.14	3.08	4.76
Lewisham	59.34	18.61	40.92	2.23	6.96
Bexley	48.93	15.86	52.05	1.51	5.07
Bromley	54.28	17.5	54.86	1.40	6.53
Greenwich	65.44	16.4	42.62	2.30	3.50

Greenwich is the borough with the highest incidence of bowel cancer, Southwark has the highest mortality. Lambeth and Southwark have the lowest screening uptake, Bromley the highest. Lambeth has the highest positivity rate from bowel cancer screening and Bromley has the highest percentage of cancer detected in positive screens (table 4). Southwark, Bexley and Bromley all have 100% attendance for assessment following a positive screening test. Lewisham has the highest proportion of individuals who were referred for a diagnostic test but did not attend.

Summary

- Bromley has the highest population of individuals between the ages of 60-69 and thus invited the most individuals for screening and had the highest uptake of 54.86%.
- Southwark had the lowest percentage uptake of bowel cancer screening of 35.14%
- Female screening uptake was higher in all six boroughs compared to male uptake.
- Male mortality from bowel cancer is higher than female mortality.
- Male mortality was highest in Lewisham and for females highest in Southwark (Figure 8).
- Overall mortality is highest in Southwark and lowest in Bexley.

Appendix

Table 5

This table shows the mortality of male and female individuals from bowel cancer from 2009

Source:- NHS IC Indicator Portal – National Office of statistics

Borough	Mortality DSR (Male)	95% Conf. Limit lower (Male)	95% Conf. Limit upper (Male)	Mortality DSR (Female)	95% Conf. Limit lower (Female)	95% Conf. Limit upper (Female)
Lambeth	19.76	14.54	24.99	13.18	10.03	17.59
Southwark	22.02	16.68	27.36	16.3	12.08	20.51
Lewisham	23.83	18.33	29.33	14.5	10.77	18.23
Bexley	19.39	15.18	23.6	13.51	10.27	16.75
Bromley	22.56	18.67	26.44	13.42	10.78	16.06
Greenwich	20.75	15.51	25.99	13.18	9.56	16.8

Table 6

A table showing the mortality of total population from bowel cancer from 2009. Source:- NHS IC Indicator Portal – National Office of statistics

Borough	Mortality DSR	95% Conf. Limit lower	95% Conf. Limit upper
Lambeth	16.49	13.36	19.63
Southwark	18.63	15.33	21.93
Lewisham	18.61	15.41	21.81
Bexley	15.86	13.31	18.41
Bromley	17.5	15.23	19.76
Greenwich	16.4	13.35	19.45

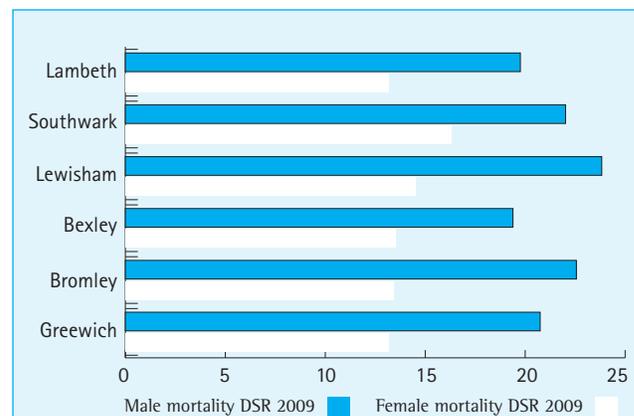


Figure 8

This figure compares the female and male mortality from bowel Ca in 2009. Source:- NHS IC Indicator Portal – National Office of statistics

References

1. Barratt A, Mannes P, Irwig L, Trevena L, Craig J, Rychetnik L (2002) Cancer screening. *J Epidemiol Community Health* 56: 899–902
2. Cullati S, Charvet-Bérard AI, Perneger TV (2009) Cancer screening in a middle-aged general population: factors associated with practices and attitudes. *BMC Public Health* 9: 118
3. Robb KA, Power E, Atkin W, Wardle J (2008) Ethnic differences in participation in flexible sigmoidoscopy screening in the UK. *J Med Screen* 15: 130–136
4. Szczepura A, Price C, Gumber A (2008) Breast and bowel cancer screening uptake patterns over 15 years for UK south Asian ethnic minority populations, corrected for differences in socio-demographic characteristics. *BMC Public Health* 8: 346
5. von Wagner C, Good A, Wright D, Rachet B, Obichere A, Bloom S, Wardle J (2009a) Inequalities in colorectal cancer

screening participation in the first round of the national screening programme in England. Br J Cancer 101(Suppl 2): S60–S63

6. von Wagner C, Semmler C, Good A, Wardle J (2009b) Health literacy and self-efficacy for participating in colorectal cancer screening: the role of information processing. Patient Educ Couns 75: 352–357

7. Weller D, Coleman D, Robertson R, Butler P, Melia J, Campbell C, Parker R, Patnick J, Moss S (2007) The UK colorectal cancer screening pilot: results of the second round of screening in England. Br J Cancer 97: 1601–1605

www.bowelcancerscreening.co.uk

Cancer Research UK: <http://info.cancerresearchuk.org:8000/cancerstats/>

Lambeth Joint Strategic Needs Assessment 2009 accessed from <http://www.lambethfirst.org.uk/JSNA> on July 19th 2010

Lewisham Joint Strategic Needs Assessment 2010 accessed from <http://www3.lewisham.gov.uk/NR/rdonlyres/970A60CD-67C-46A5-9576-2EC53B77274C/0/HealthWellBeingCare-March2010>

2001 census accessed from <http://www.statistics.gov.uk/census2001>

NHS IC Indicator Portal – National Office of statistics

NHS Bowel Cancer Screening- London Programme Hub 2011-2012 Report October 2011–December 2011

NHS Bowel Cancer Screening- London Programme Hub 2011-2012 Report January 2012–March 2012

NHS Bowel Cancer Screening- London Programme Hub 2011-2012 Report April 2012–June 2012

NHS Bowel Cancer Screening- London Programme Hub 2012-2013 Report July 2012–September2012

Southwark Joint Strategic Needs Assessment 2008 accessed from <http://www.southwarkpct.nhs.uk/documents/4374.doc> on July 19th 2010