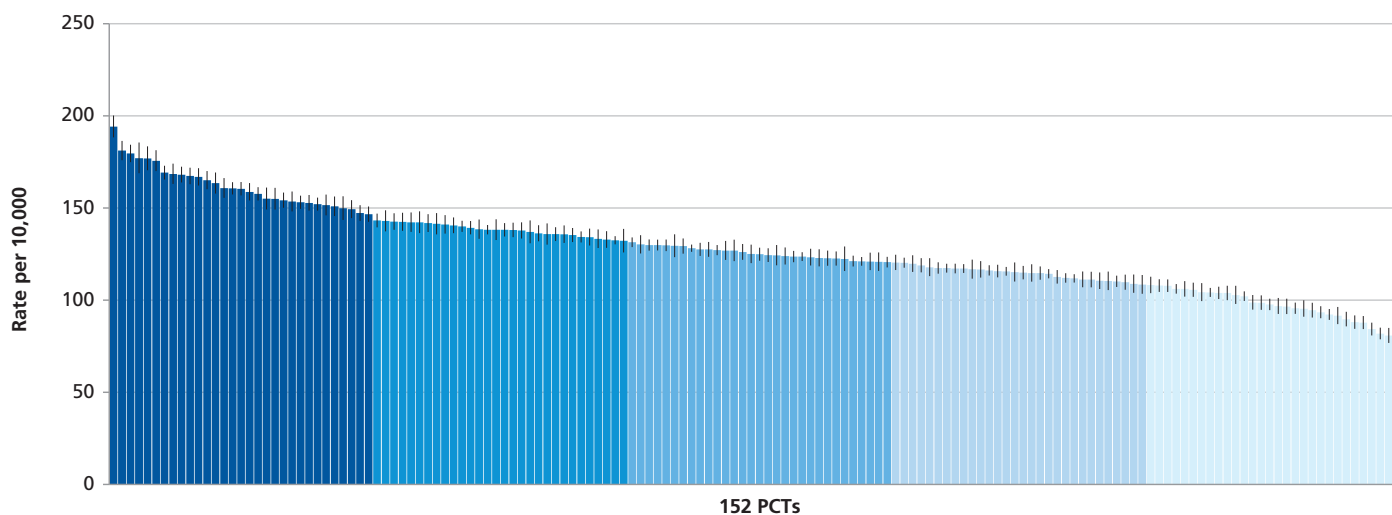
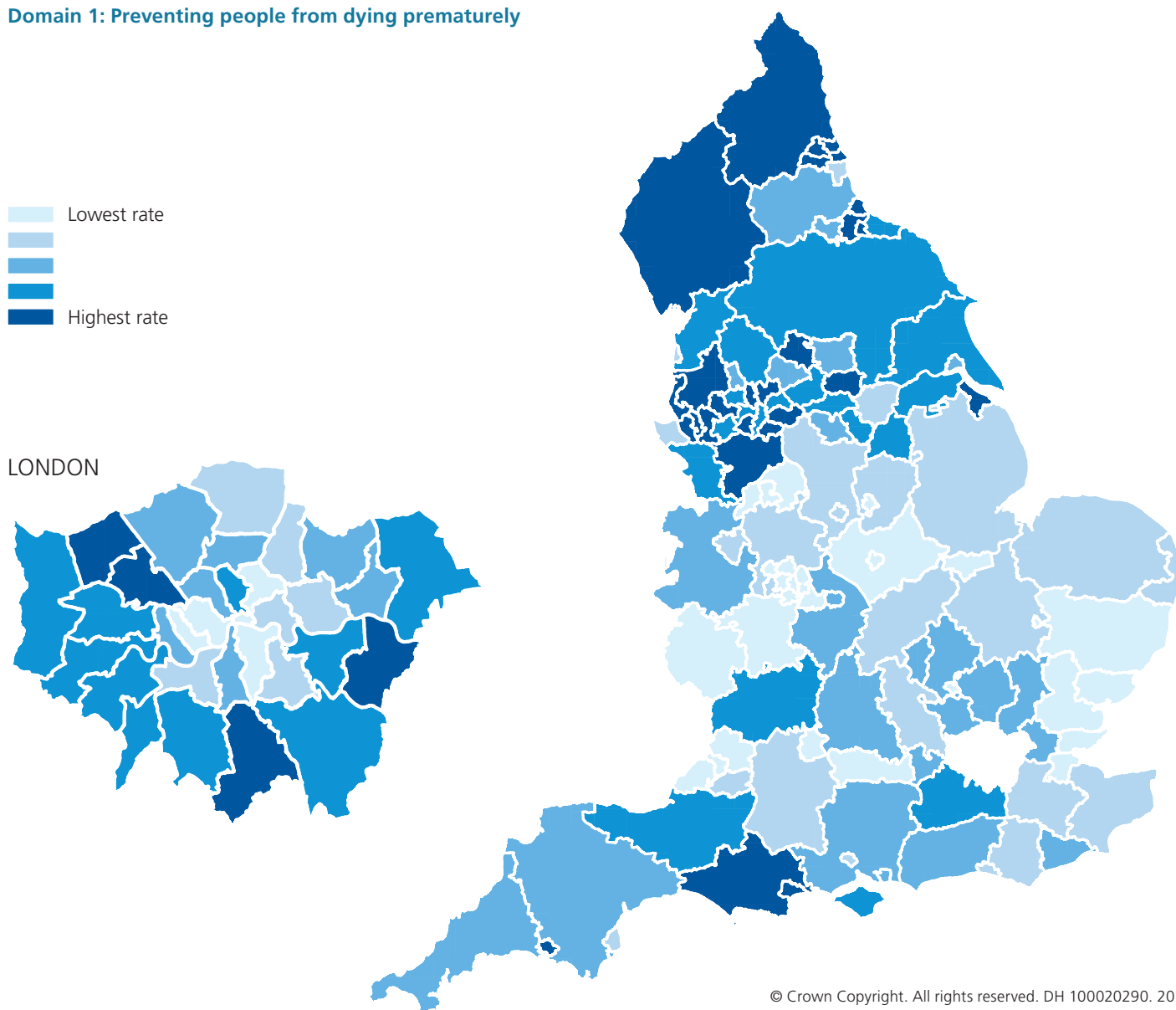


CANCERS AND TUMOURS

Map 1: Rate of colonoscopy procedures and flexisigmoidoscopy procedures per population by PCT

Indirectly standardised rate, adjusted for age, sex and deprivation 2009/10

Domain 1: Preventing people from dying prematurely



Context

Colonoscopy is an investigation of the lining of the entire large bowel (colon) using an endoscope. Flexisigmoidoscopy is similar to colonoscopy, but confined to an examination of the sigmoid colon (last part of the large bowel) using a flexible endoscope.

Both procedures are used to diagnose or exclude cancer of the bowel or to look for pre-cancerous polyps. If polyps are found on examination, they are often removed. Flexisigmoidoscopy and colonoscopy can also be used in the diagnosis of, and monitoring of treatment for, inflammatory bowel disease (IBD). About 60–70% of procedures are performed for the diagnosis of cancer, 15–20% for the diagnosis of and monitoring of treatment for IBD, and 10% for other reasons.

Flexisigmoidoscopy is the preferred procedure in some services because sedation is not required, and it is quicker and carries less risk than colonoscopy.

Other countries with developed economies have higher rates of colonoscopy than the UK. In the most recent national colonoscopy audit, Scotland and Northern Ireland had higher rates of colonoscopy than England. Increased demand (about 80 procedures per 10,000 population per year) will soon be generated by the national flexible sigmoidoscopy screening programme, doubling the current rate.

The National Cancer Awareness and Early Diagnosis (NAEDI) Programme is aimed at improving cancer survival outcomes for England, including that for bowel cancer. Early diagnosis is vital.

For this indicator, the rates of colonoscopy procedures and flexisigmoidoscopy procedures have been combined.

Magnitude of variation

For PCTs in England, the rate of colonoscopy procedures and flexisigmoidoscopy procedures ranged from 71.6 to 194.1 per 10,000 population (2.7-fold variation). When the five PCTs with the highest rates and the five PCTs with the lowest rates are excluded, the range is 88.0–175.6 per 10,000 population, and the variation is twofold.

For PCTs in England, the ratio of flexisigmoidoscopy procedures to colonoscopy procedures ranged from 0.1 to 1.6 (20-fold variation). When the five PCTs with the highest ratios and the five PCTs with the lowest ratios are excluded, the range is 0.3–1.4, and the variation is sixfold.

Reasons for variation in the combined rate for colonoscopy and flexisigmoidoscopy procedures are differences in:

- › Regional cancer rates;
- › Number of procedures conducted in the independent sector – this is relatively high in the South East.

Possible reasons for unwarranted variation include differences in:

- › Professional practice for GPs and hospital clinicians;
- › Local service configuration.

Options for action

Commissioners need to discuss with local gastro-endoscopy service providers and bowel surgeons:

- › The referral rate for flexisigmoidoscopy and colonoscopy in relation to local population needs;
- › Local service configuration.

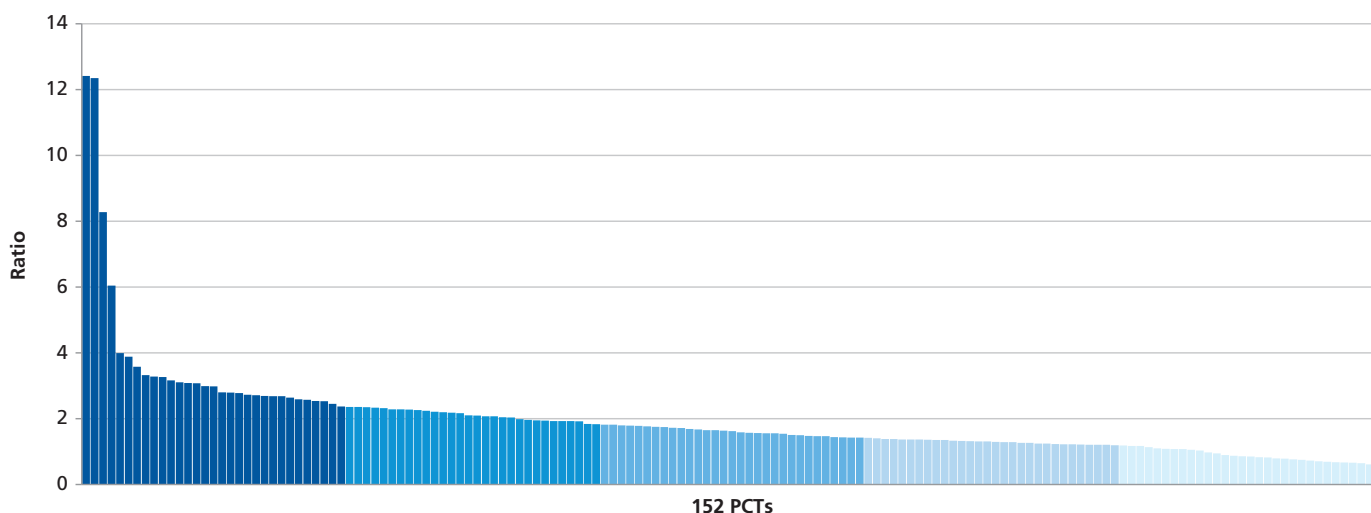
Commissioners and providers can use the results of the Global Rating Scale (GRS: see “Resources”), a tool that enables units to assess their provision of patient-centred care, including dimensions for quality and safety, and customer care. Applying the “Appropriateness item is important; it reassures commissioners that referrals are vetted against best practice. A planning and productivity assessment tool is now available: high scores indicate services are planning for future demand and resource use is efficient.

Although colonoscopy and flexisigmoidoscopy are high-value interventions, evidence for the use of upper gastro-intestinal endoscopy for the detection and prevention of cancer is less strong. Commissioners and providers need to consider the totality of resources used for endoscopy procedures to achieve maximal value for individual patients and the population.

RESOURCES

- › Joint Advisory Group (JAG) for GI endoscopy. JAG defines and maintains the standards by which endoscopy is practised in the UK. Website has a section on “Commissioning”.
<http://www.thejag.org.uk/>
- › Endoscopy Global Rating Scale (GRS).
<http://www.grs.nhs.uk/WhatIsGRS.aspx>

Ratio of flexisigmoidoscopy procedures to colonoscopy procedures by PCT 2009/10

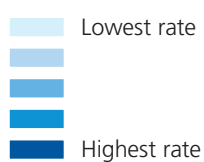


CANCERS AND TUMOURS

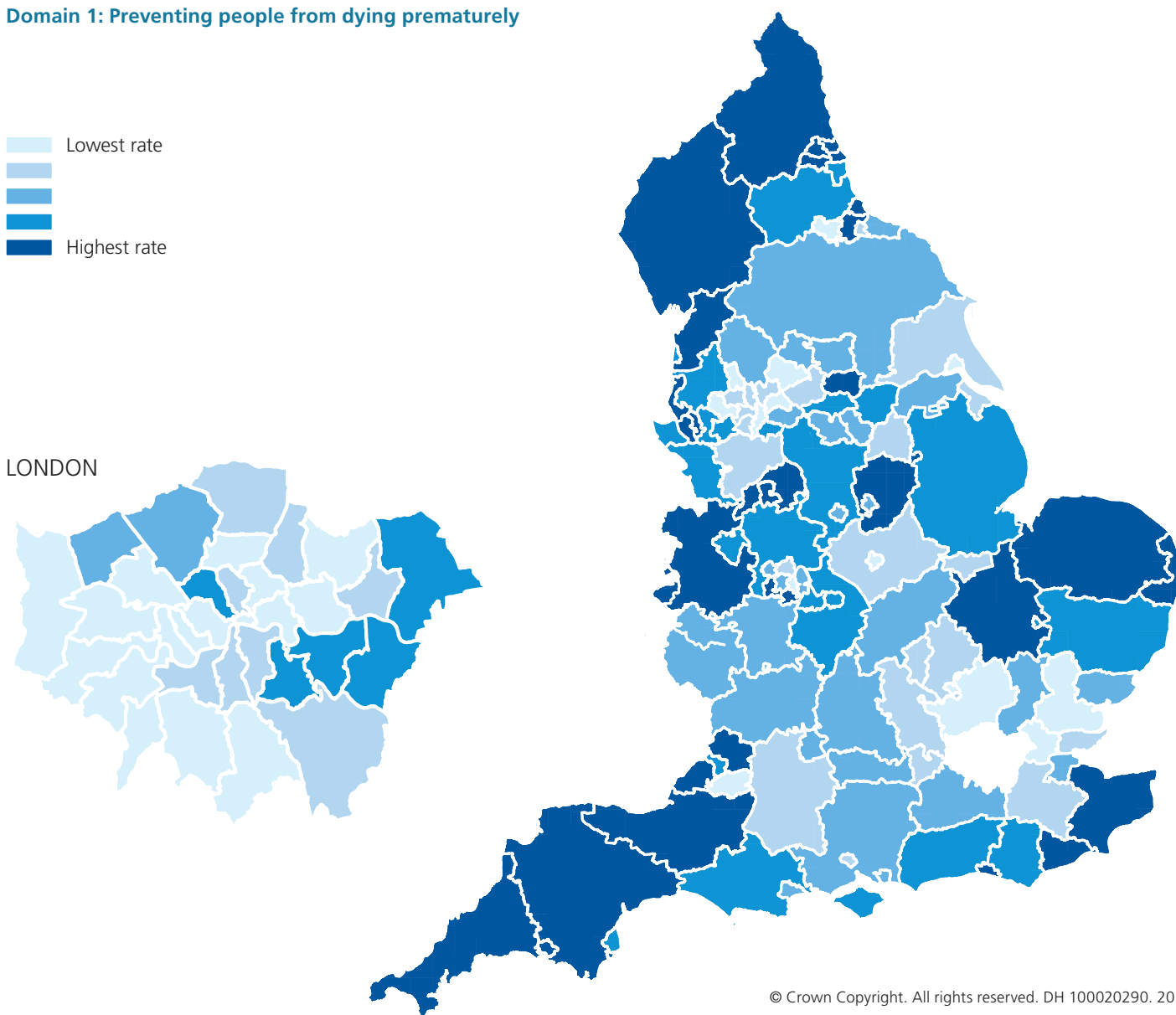
Map 2: Rate of urgent GP referrals for suspected cancer per population by PCT

2010/11

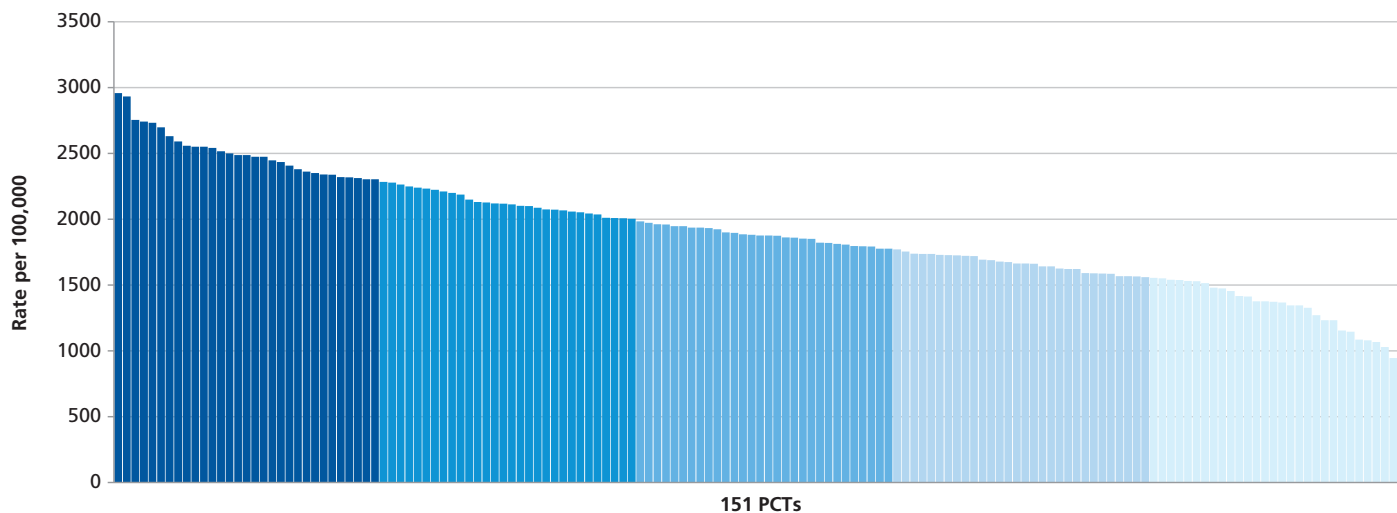
Domain 1: Preventing people from dying prematurely



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Context

Across England, around one million urgent GP referrals are made for suspected cancer each year (based on all cancer two-week-wait data). On average, a GP will make around 25 urgent referrals a year, that is, one every fortnight. The overall number of urgent referrals has increased over recent years, from a baseline of around 600,000. However, it is still well below the number that was estimated a decade ago (around two million a year).

This indicator has been calculated by the National Cancer Intelligence Network (NCIN).¹

Magnitude of variation

For this indicator, the rates have not been adjusted for case-mix.

For PCTs in England, the rate of urgent GP referrals for suspected cancer per 100,000 population ranged from 919.8 to 2957.4 (3.2-fold variation). When the five PCTs with the highest rates and the five PCTs with the lowest rates are excluded, the range is 1084.3–2697.0 per 100,000, and the variation is 2.5-fold.

Thus, there is wide variation in the uptake of the two-week-wait referral route among PCTs. At present, 13 PCTs have referral rates over 2500 per 100,000 population, whereas 23 PCTs have referral rates below 1500 per 100,000 population.

It is important to emphasise that there is no “right” or “wrong” level of referrals. Work is being undertaken at present to understand the reasons for variation.

The appropriate rate of referral will vary from one cancer to another, and will be influenced by the age structure of the population. However, the degree of variation observed for this indicator is probably greater than could be accounted for by the age distribution of populations.

Options for action

Commissioners may wish to examine variations in usage of the two-week-wait referral route at a general practice level.

Commissioners could also look at numbers of two-week-wait referrals in conjunction with other parameters, including:

- conversion rates, i.e. the proportion of patients with two-week-wait referrals who were subsequently found to have cancer;
- the overall proportion of patients with cancer who were diagnosed through the two-week-wait referral route, i.e. the detection rate.

In future, commissioners should also be able to look at two-week-wait referral rates in conjunction with other parameters such as:

- usage of diagnostic tests (see page 00);
- the proportion of new cases of cancer who present as emergencies.

Commissioners in areas with higher or lower overall two-week-wait referral rates could examine this further at tumour-group level, for example, breast, colorectal, or skin.

RESOURCES

- GP urgent referrals rates. National Cancer Intelligence Network (NCIN) data briefing, November 2011. <http://www.ncin.org.uk/home.aspx>
- To provide comparative information to drive improvements in cancer commissioning, the National Cancer Action Team and the NCIN have produced an online resource, the Cancer Commissioning Toolkit. http://www.ncin.org.uk/cancer_information_tools/cct.aspx
- Further information about cancer waiting times and related performance data: <http://www.dh.gov.uk/health/2011/08/commissioner-based-cwt/>

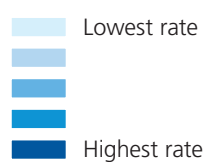
¹ Sources: Number of GP two week wait referrals, Department of Health, Commissioner-based cancer waiting times, April 2010 to March 2011, annual reference volume. http://www.dh.gov.uk/en/PublicationsandStatistics/Publications/PublicationsStatistics/DH_128719. GP registered populations 2010, The Information Centre Attribution dataset. <http://www.ic.nhs.uk/statistics-and-data-collections/population-and-geography/gp-registered-populations>.

CANCERS AND TUMOURS

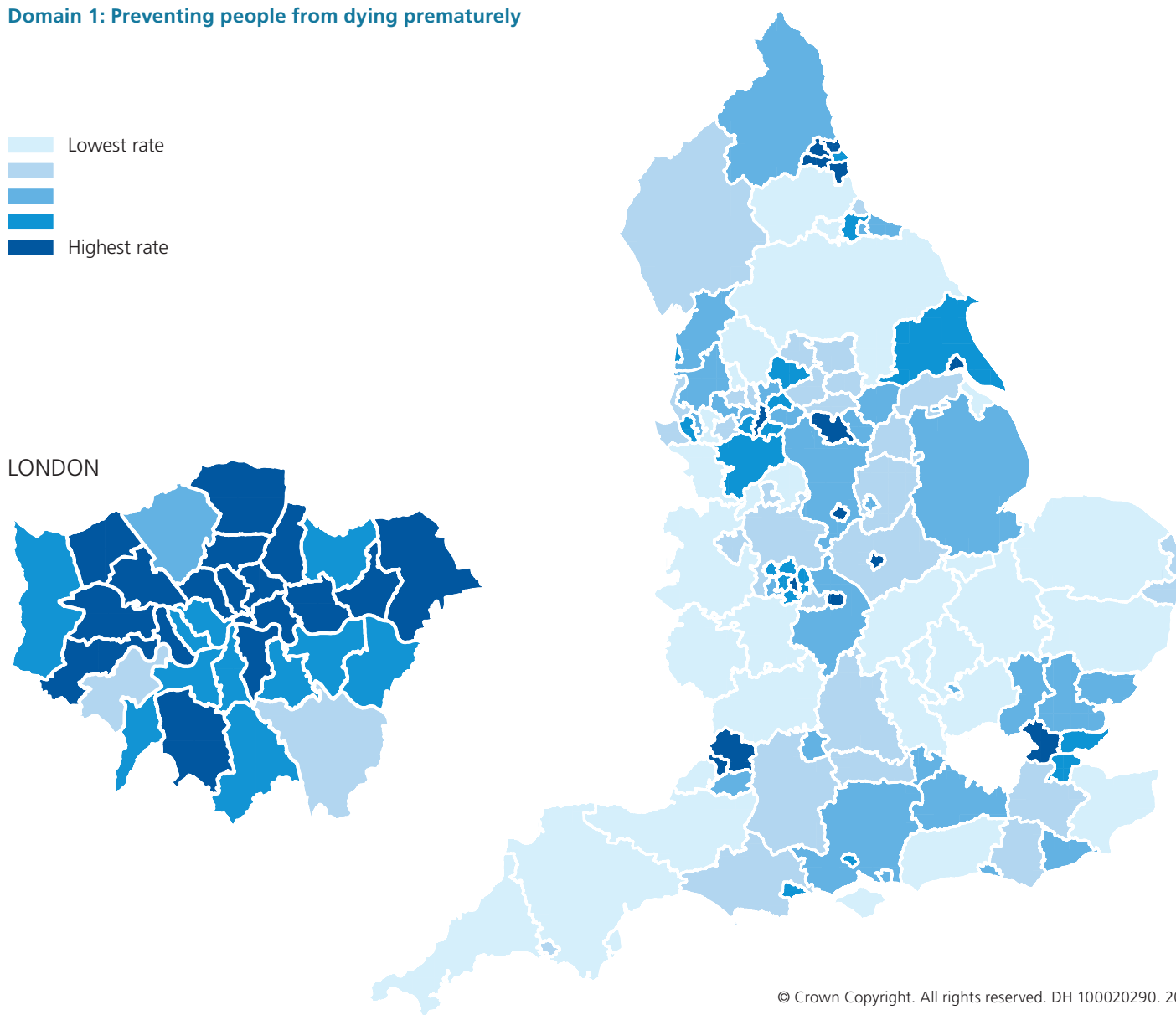
Map 3: Number of emergency cancer bed-days per new cancer registration by PCT

2009/10

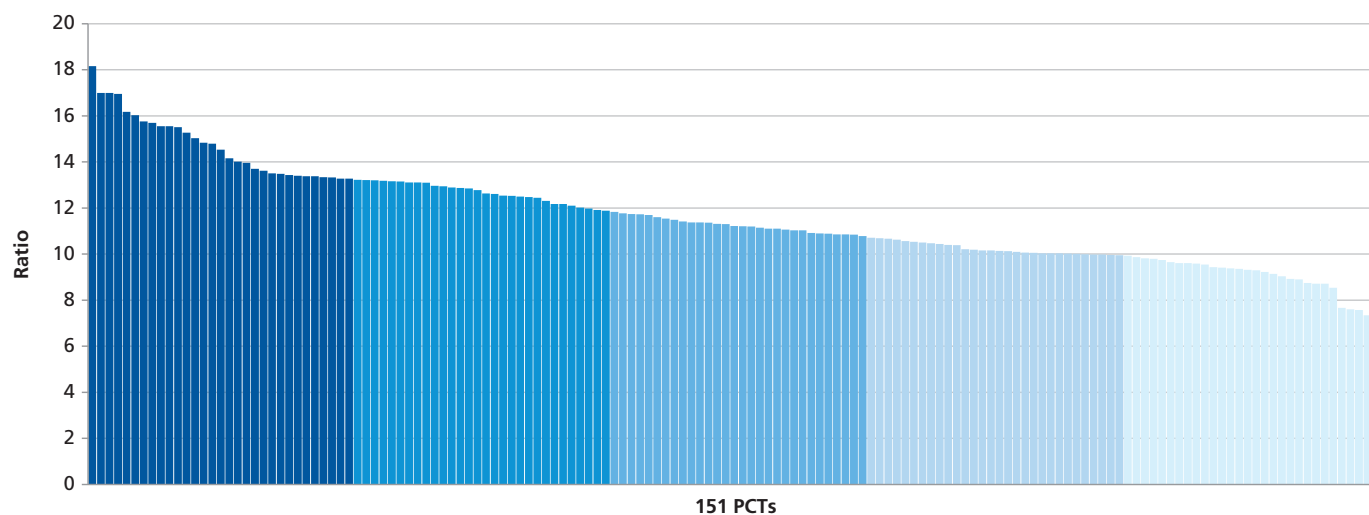
Domain 1: Preventing people from dying prematurely



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Context

In England, around one-quarter of all new cancer patients present as emergencies.¹ In addition, patients with known cancer may be readmitted as an emergency, either following complications of treatment, such as surgery or chemotherapy, or as a result of symptoms relating to progressive disease. Effective cancer systems will minimise the number of unnecessary emergency admissions and will keep length of stay as short as possible if they do occur. Together, these will impact on the total number of emergency bed-days.

Over the past decade, the number of emergency admissions related to cancer has risen markedly in England. However, the rate of rise in emergency admissions has slowed during the past few years and is now broadly in line with the increasing incidence of cancer. Lengths of stay for emergency admissions have reduced, but this reduction may now be reaching a plateau.

This indicator has been calculated by the National Cancer Intelligence Network (NCIN).²

Magnitude of variation

This indicator takes account of variations in the numbers of cases of cancer in different PCTs.

For PCTs in England, the number of emergency cancer bed-days per new cancer registration ranged from 7.1 to 18.2 (2.5-fold variation). When the five PCTs with the highest emergency bed-day ratios and the five PCTs with the lowest emergency bed-day ratios are excluded, the range is 8.5–16.0, and the variation is 1.9-fold.

At present, 13 PCTs have 15 or more emergency cancer bed-days per new cancer registration, whereas 30 have less than 10 emergency cancer bed-days per new cancer registration.

Some warranted variation may be related to differences in the numbers of cases by cancer type, but this is likely to account for only a small part of the observed variation.

Unwarranted variation may relate to later diagnosis in some areas when compared with others, leading to higher numbers of new emergency presentations with cancer.

However, the majority of emergency cancer bed-days relate to patients who are readmitted with complications of treatment of disease progression.

Options for action

Commissioners in areas where the number of emergency cancer bed-days per new cancer registration is above the national average (11 days) should work with providers to identify what improvements can be made in terms of both quality and productivity. For instance, whether appropriate services, such as acute oncology services, which can reduce the demand for emergency inpatient care, are in place.

RESOURCES

- To provide comparative information to drive improvements in cancer commissioning, the National Cancer Action Team and the National Cancer Intelligence Network (NCIN) have produced an online resource, the Cancer Commissioning Toolkit. http://www.ncin.org.uk/cancer_information_tools/cct.aspx

¹ NCIN. Routes to Diagnosis. <http://www.ncin.org.uk/home.aspx>

² Sources: Number of emergency bed-days, 2009/10, Hospital Episode Statistics, NatCanSAT. Number of newly diagnosed cancer cases, 2008, UKCIS (accessed August 2011).

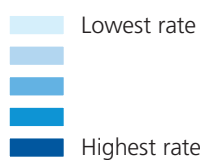
CANCERS AND TUMOURS

Map 4: Mean length of stay for elective breast surgery by PCT

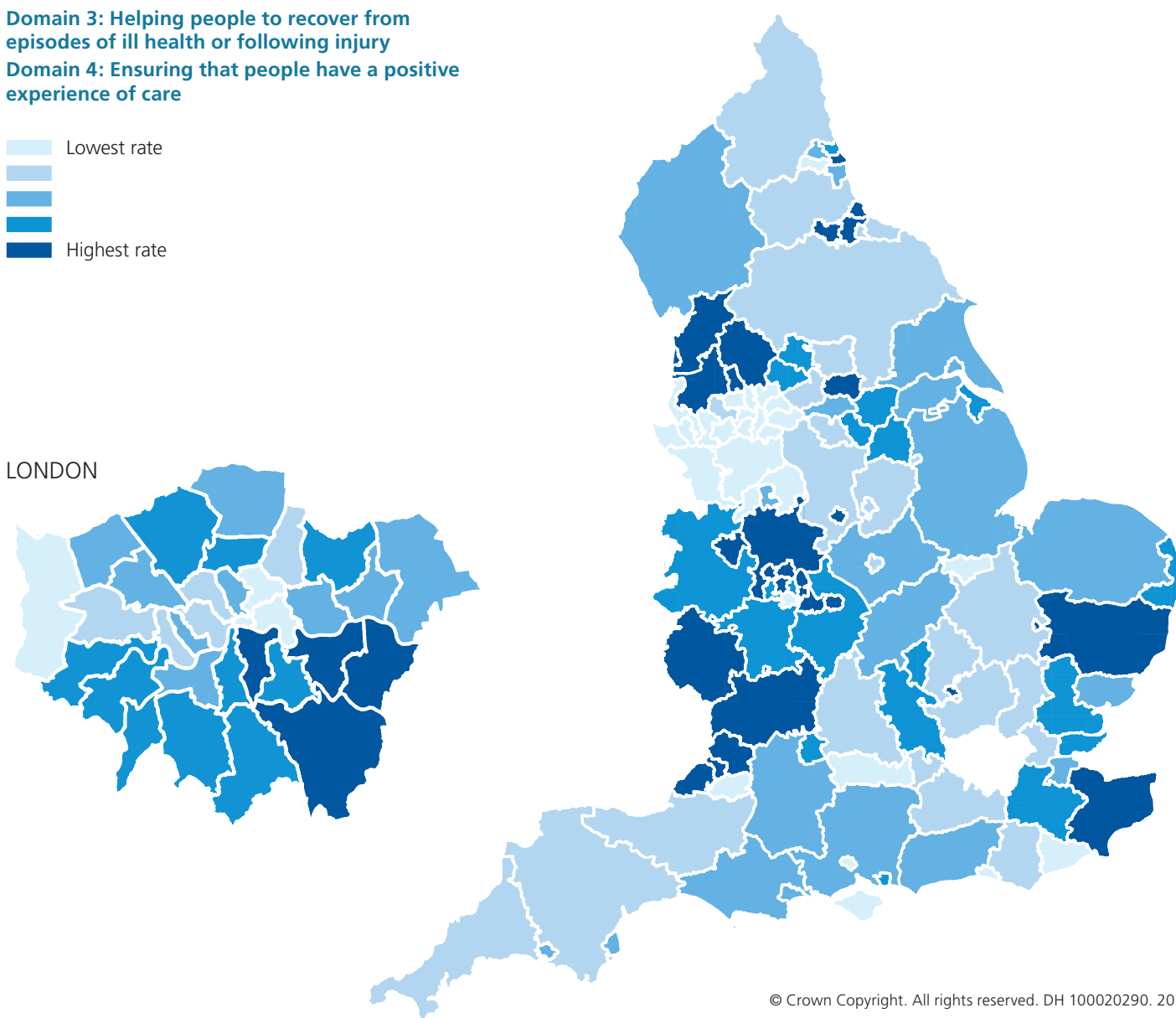
2009/10

Domain 3: Helping people to recover from episodes of ill health or following injury

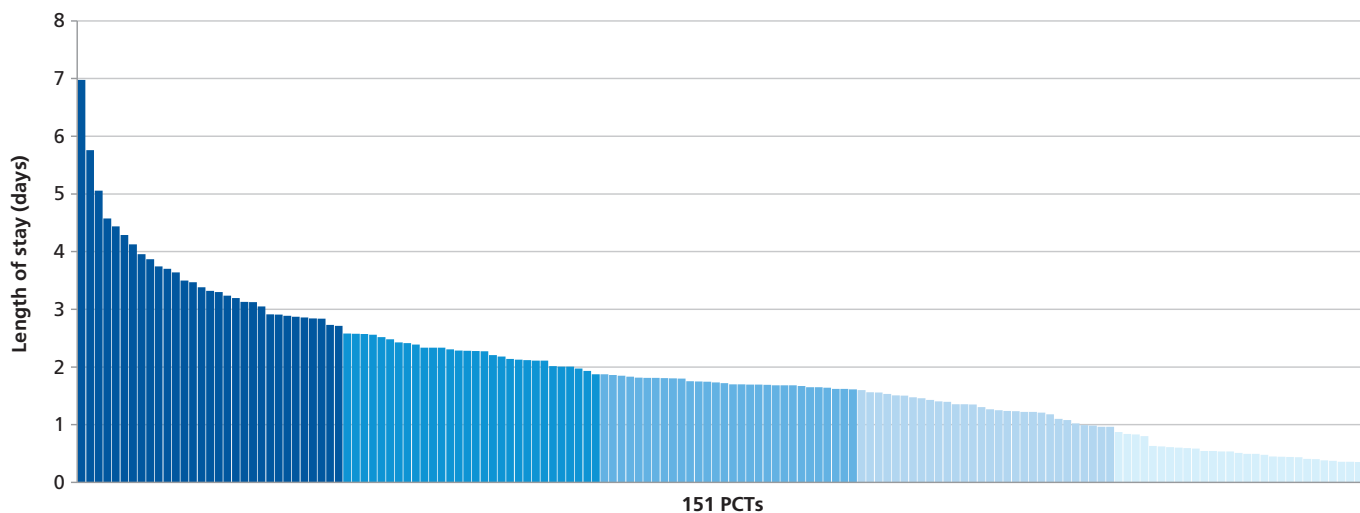
Domain 4: Ensuring that people have a positive experience of care



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Context

Most patients undergoing elective breast surgery can be safely managed as day cases or with a single overnight stay. One exception to this is patients who are undergoing immediate breast reconstruction.

NHS Improvement has led a major service improvement programme to facilitate the introduction of day-case and single-overnight breast surgery. This has been reflected in a marked decrease in overall bed-days for elective breast surgery across England.

Magnitude of variation

For PCTs in England, the mean length of stay for elective breast surgery¹ ranged from 0.3 to 7 days (25-fold variation). When the five PCTs with the highest mean lengths of stay and the five PCTs with the lowest mean lengths of stay are excluded, the range is 0.4–4.3 days, and the variation is 11-fold.

One reason for warranted variation is the number of patients undergoing breast reconstruction, which may be different in different areas.

There is a high degree of variation in mean lengths of stay among PCTs, which is persistent, indicating that some Trusts have not yet introduced the approach of managing patients as day cases or with a single overnight stay.

At present, over 20 PCTs have mean lengths of stay in excess of 3 days, while over 30 PCTs have mean lengths of stay of less than one day.

Options for action

Commissioners in areas where lengths of stay for breast surgery are greater than the mean should discuss the issue with the relevant provider organisation(s).

Commissioners could explore with providers:

- › the use of day-case surgery;
- › whether patients are admitted on the day of surgery;
- › reasons for not adopting single overnight stays as the norm for this group of patients.

RESOURCES

- › To provide comparative information to drive improvements in cancer commissioning, the National Cancer Action Team and the National Cancer Intelligence Network (NCIN) have produced an online resource, the Cancer Commissioning Toolkit. http://www.ncin.org.uk/cancer_information_tools/cct.aspx

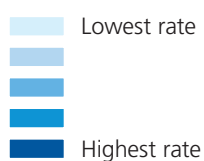
¹ Mean length of episode for elective breast surgery, 2009/10, Hospital Episode Statistics, NatCanSAT.

CANCERS AND TUMOURS

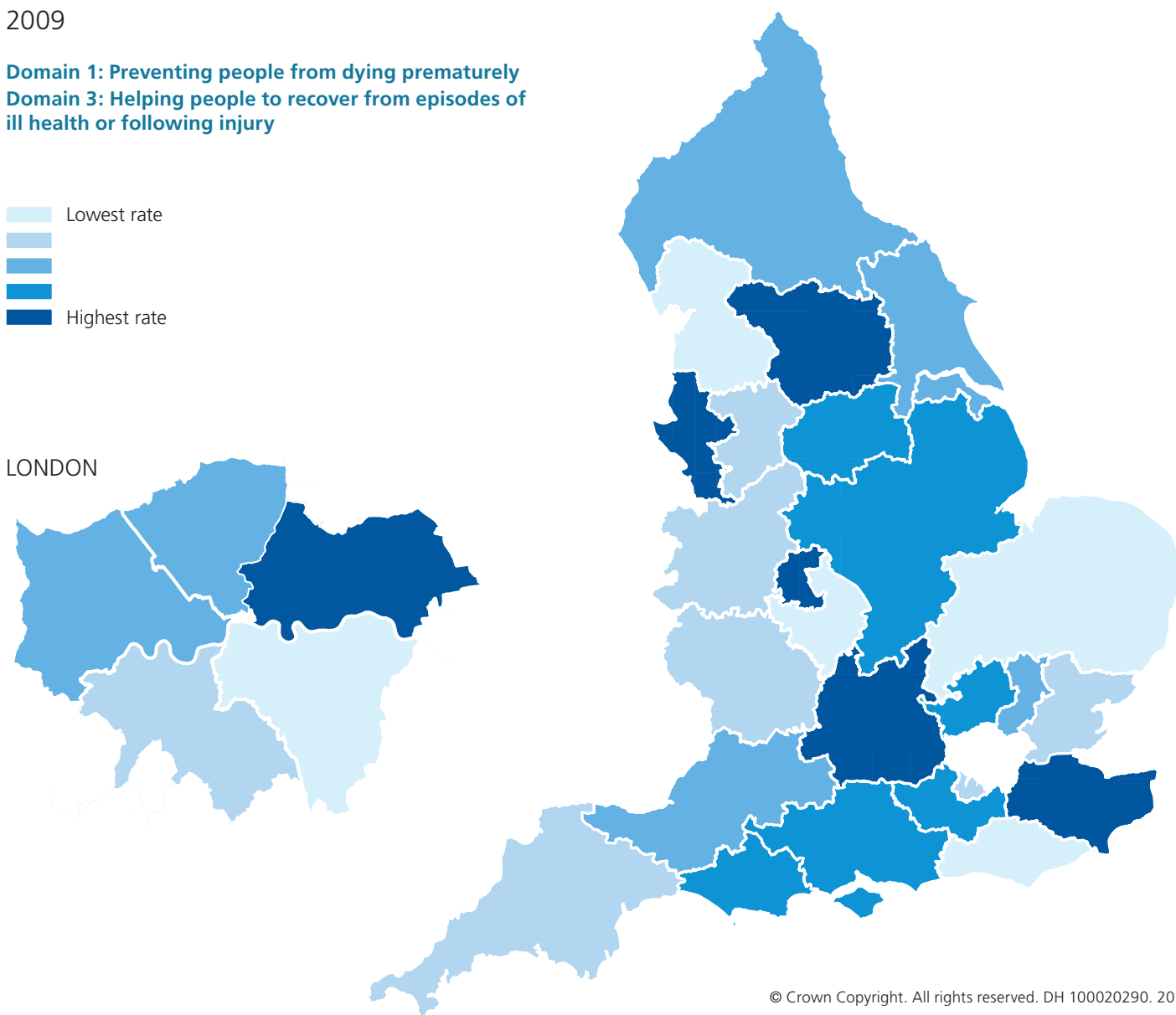
Map 5: Percentage of histologically confirmed non-small cell lung cancer (NSCLC) patients receiving surgery by cancer network

2009

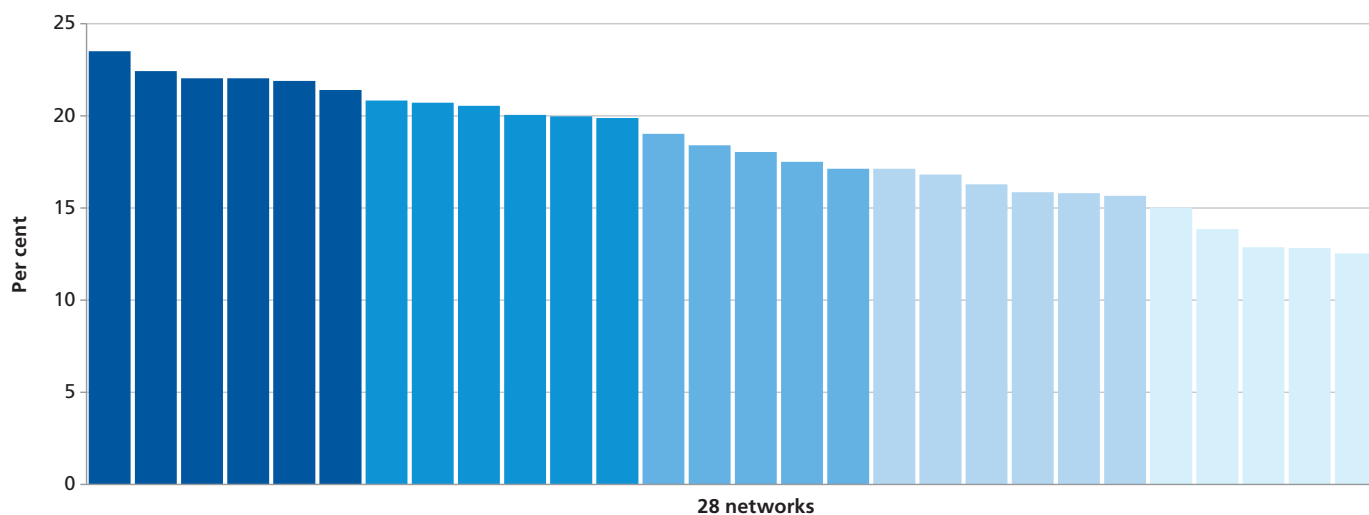
Domain 1: Preventing people from dying prematurely
Domain 3: Helping people to recover from episodes of ill health or following injury



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Context

For patients with lung cancer, surgical resection is the treatment most likely to lead to long-term survival, i.e. five years and more. As lung cancer is deep-seated, many patients experience very few symptoms until the disease is quite advanced. There is robust evidence of considerable delays in some patients presenting to specialist care. Surgical treatment is mostly confined to the commonest group of lung cancers known as non-small cell lung cancer (NSCLC).

Survival rates for lung cancer in the UK are worse than those in many other developed countries. From the comparative data available, surgical treatment rates also appear to be lower. It is uncertain whether this is as a result of differences in the characteristics of UK patients or in how they are managed by clinical teams charged with their care.

In the UK, surgical treatment rates have been shown to vary widely. In England for 2004–2006, surgical treatment rates for all lung cancer patients (including those in whom no tissue diagnosis has been confirmed) ranged from 3% to 18% by PCT area in which patients lived (based on National Cancer Data Repository managed by the National Cancer Intelligence Network, NCIN).¹ A positive relationship between surgical treatment rate and survival was also found.

Patients assessed first by multidisciplinary teams (MDTs) based in centres with thoracic (chest) surgery are more likely to be operated upon.² Specialist thoracic surgeons operate on a higher proportion of patients; employing specialist surgeons can increase surgical treatment rates in areas where rates have historically been low.³ According to the National Lung Cancer Audit (NLCA), surgical treatment rates have been increasing in recent years. This has coincided with a substantial increase in the number of specialist surgeons (from 44 to >70 in 5–6 years). It is likely that the two phenomena are connected.

Data are from the NLCA (see “Resources”), and include patients with histologically confirmed NSCLC first diagnosed in England in 2009.

Magnitude of variation

For cancer networks in England, the percentage of histologically confirmed NSCLC patients receiving surgery

ranged from 12.5% to 23.5%, a 1.9-fold variation. For hospital Trusts in England (see column chart below), the percentage of histologically confirmed NSCLC patients receiving surgery ranged from 5.6% to 37.5%, a sevenfold variation.

The proportions quoted are uncorrected for case-mix. When the NLCA adjusted for age, sex, performance status (assessment of overall fitness), stage of disease and socio-economic status, major variation in patients’ likelihood of having surgical treatment remains.

Nationally, late diagnosis seems to be a major factor in low resection rates. However, the degree of variation in the UK is likely to be largely due to variation in the amount and level of specialisation of thoracic surgical input into treatment decisions in MDTs.

Options for action

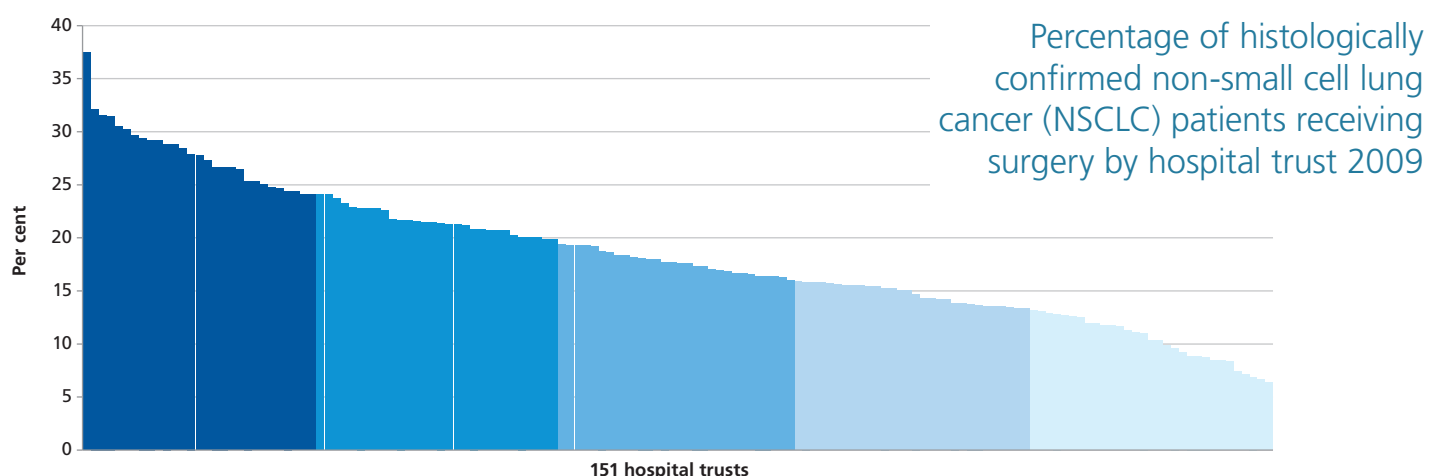
Commissioners and providers should:

- collaborate to improve earlier diagnosis of NSCLC, which may affect the stage of disease at diagnosis and the fitness of patients undergoing surgery;
- ensure that support is given to initiatives such as the National Awareness and Early Diagnosis Initiative (NAEDI; see “Resources”) aimed at:
 - increasing public and primary care awareness of the early symptoms of lung cancer;
 - improving access to diagnostic tests, e.g. chest X-ray and CT scans.

Commissioners should review specialist thoracic surgical input into local lung cancer MDTs, and ensure that all patients have access to such advice during the decision-making process for treatment.

RESOURCES

- National Lung Cancer Audit. 2010 Annual Report. NHS Information Centre. http://www.ic.nhs.uk/webfiles/Services/NCASP/audits%20and%20reports/NHSIC_National_Lung_Cancer_Audit_2010_V1.0.pdf
- National Awareness and Early Diagnosis Initiative. <http://info.cancerresearchuk.org/spotcancerearly/naedi/lungtemp>



- 1 Riaz SP, Lichtenborg M, Jack RH et al (2011) Variation in surgical resection for lung cancer in relation to survival: population-based study in England 2004–6. *European Journal of Cancer* (in press). epub ahead of publication online from www.sciencedirect.com
- 2 Rich AL, Tata LJ, Free CM et al (2011) Inequalities in outcomes for non-small cell lung cancer: the influence of clinical characteristics and features of the local lung cancer service. *Thorax* (in press).
- 3 Martin-Ucar AE, Waller DA, Atkins JA et al (2004) The beneficial effects of specialist thoracic surgery on the resection rate for non-small cell lung cancer. *Lung Cancer* 46: 227–232.