

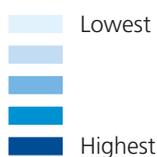
**INTERVENTIONAL RADIOLOGY**

**Map 99:** Percentage of NHS Trusts that had formal arrangements for 24-hour access to nephrostomy by strategic health authority

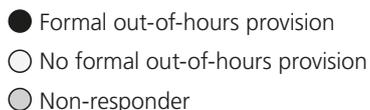
November 2013

Domain 1: Preventing people from dying prematurely

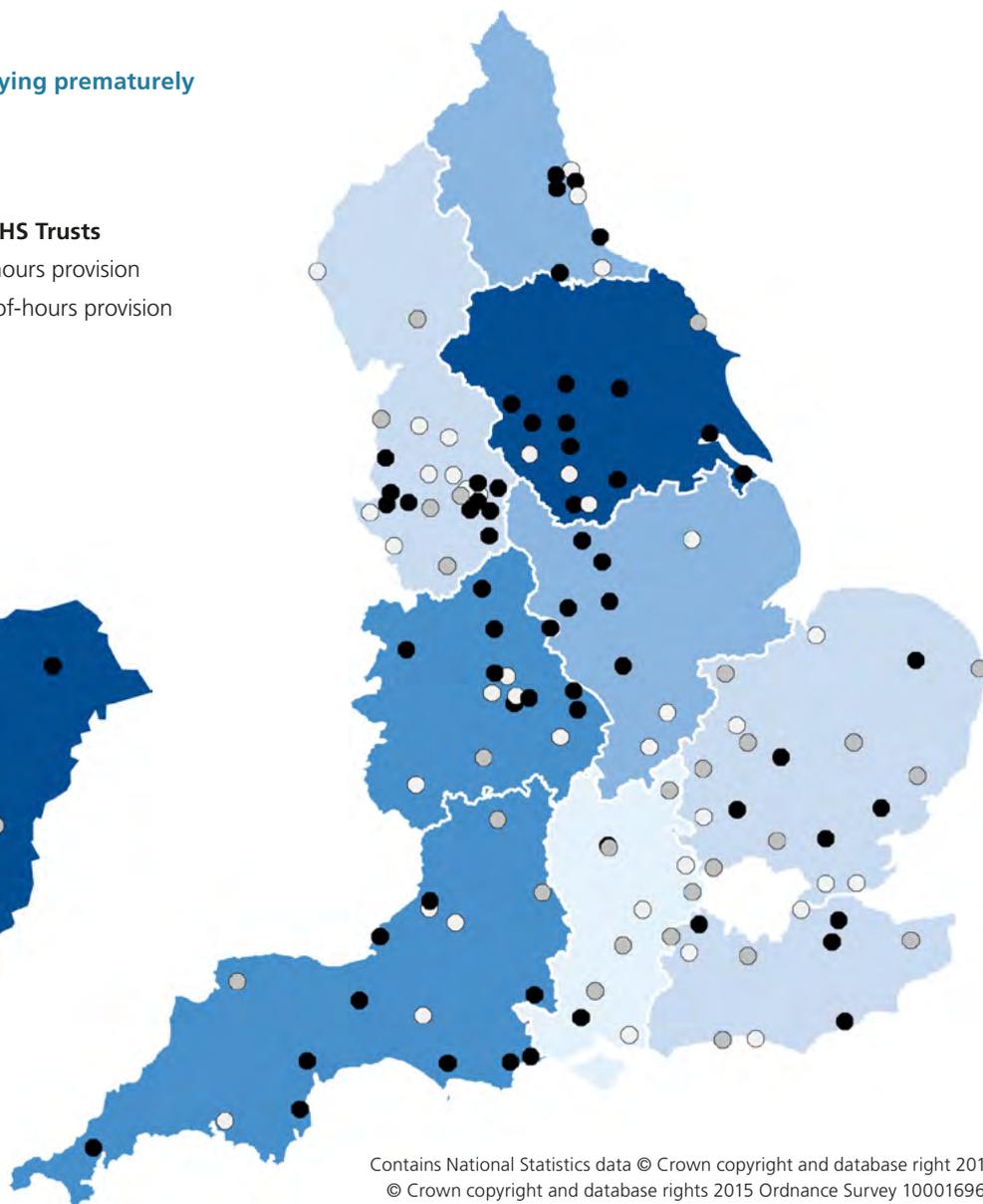
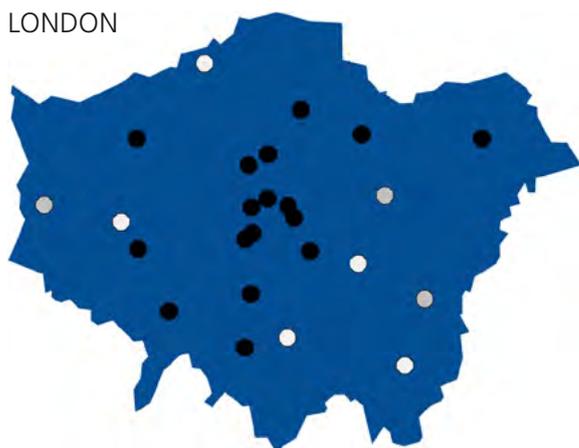
**SHA variation**



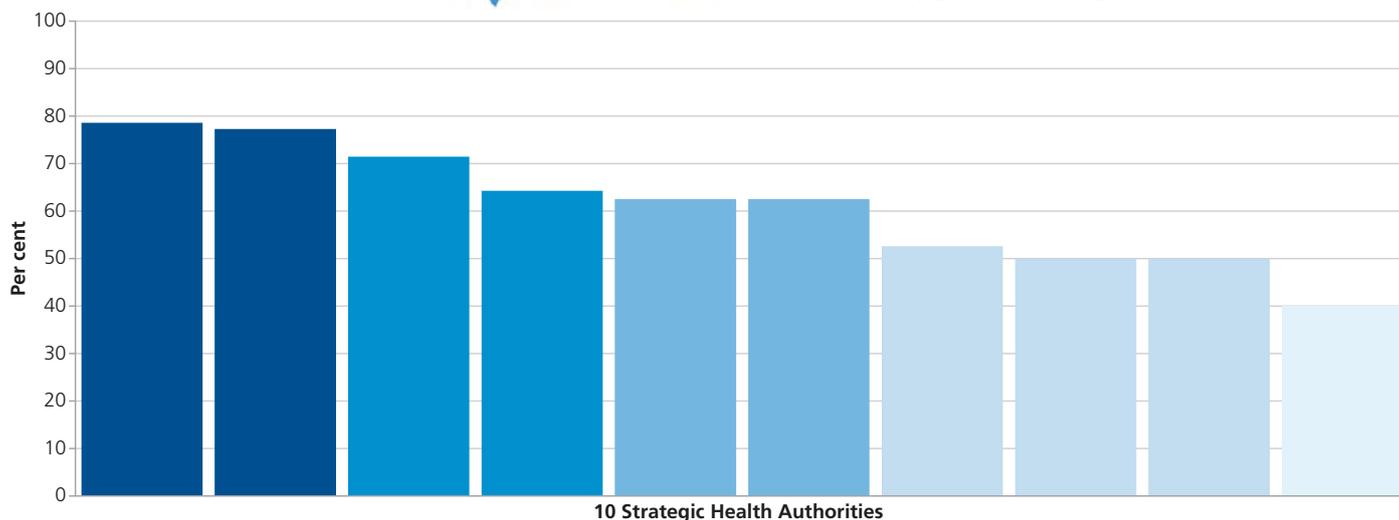
**IR provision at NHS Trusts**



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## Context

Interventional radiology (IR) refers to a range of techniques that use radiological image guidance to target therapy, and interventional radiologists are trained in both radiology and interventional therapy.

Most IR treatments are minimally invasive alternatives to open and laparoscopic surgery, with the advantages over the latter treatments of:

- reduced risk;
- shorter hospital stays;
- lower costs;
- increased patient comfort;
- quicker convalescence and return to work.<sup>1</sup>

A wide range of conditions can be treated with IR, and IR services can often be life-saving, therefore, access to these services is necessary seven days a week.

Since 2011, there has been an annual survey by NHS Improving Quality (NHSIQ) of all hospitals in England to assess the level of provision of weekend and out-of-hours IR services. In 2011 and 2012, clinicians were asked to rate their IR services, but in 2013 and 2014 clinicians were asked to provide an overview of provision of four specific IR services:

- nephrostomy – in people with kidney stones, IR involves placing a tube in the kidney to allow urine to drain, and removing the stones with a variety of instruments placed through the skin into the kidney<sup>1</sup>;
- endovascular intervention – in people with expanded arteries or aneurysms, IR treatment involves re-lining the vessel with a stent graft<sup>1</sup>;
- embolisation for general haemorrhage – general haemorrhage is the most common vascular

emergency treated by IR, and bleeding often can be stopped permanently by embolisation<sup>1</sup>;

- embolisation for post-partum haemorrhage – for women who suffer uncontrolled bleeding after childbirth and in women who have a high risk of bleeding from an abnormal placenta, IR can be used to prevent bleeding<sup>1</sup>.

The delivery of IR services requires specialist expertise in the form of specifically trained radiologists, nurses and radiographers. Being able to provide such a skilled workforce is challenging for most NHS Trusts. As a result, not all NHS Trusts are able to provide 24-hour access to IR services in the most effective way; some hospitals depend on informal and ad-hoc arrangements to deal with emergencies out of hours. Indeed, in the IR survey, ad-hoc or informal arrangements was the most common response to the question why cover for IR services was less than 24/7.

Despite an overall improvement in the formal provision of IR services over the four-year period of the survey, the questions are not directly comparable from 2011 to 2014. A more direct comparison is possible between the questions in the surveys for 2013 and 2014 (see Table 99.1); however, the response rate in 2013 and in 2014 was different, and some hospitals did not respond to both years of the survey. A core of 79–82 hospitals responded to the survey in both 2013 and 2014.

For this series of indicators, the 2013 data have been used, although the results for the 2014 survey are now available (see “Resources”). The 2013 data were selected because it is possible to show not only which NHS Trusts had formal out-of-hours IR provision, but also the degree of variation in service provision across England using the strategic health authority (SHA) as a level of geography. Although the SHA is no longer part of the

**Table 99.1: Percentage of hospitals responding to the NHSIQ survey that were providing formal out-of-hours IR services in 2013 and 2014**

	Formal out-of-hours provision (% hospitals)		Hospitals responding in 2013 & 2014 (n= 82, 79, 81 & 81, respectively)	
	2013	2014	% with improvement in formal out-of-hours provision	% with decline in formal out-of-hours provision
<b>Nephrostomy</b>	62.9% (73/116)	65.6% (61/93)	17.1%	11.0%
<b>Endovascular intervention</b>	60.3% (70/116)	77.8% (70/90)	19.0%	3.8%
<b>Embolisation for general haemorrhage</b>	71.9% (82/114)	67.4% (62/92)	6.2%	14.8%
<b>Embolisation for post-partum haemorrhage</b>	49.1% (57/116)	59.8% (55/92)	21.0%	9.9%

1 Kessel D (2013) What is Interventional Radiology? British Society of Interventional Radiology website. <http://www.bsir.org/patients/what-is-interventional-radiology/>

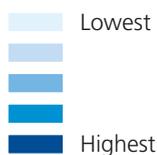
**INTERVENTIONAL RADIOLOGY**

# Map 100: Percentage of NHS Trusts that had formal arrangements for 24-hour access to endovascular intervention by strategic health authority

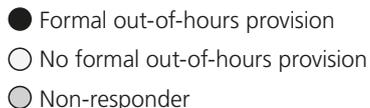
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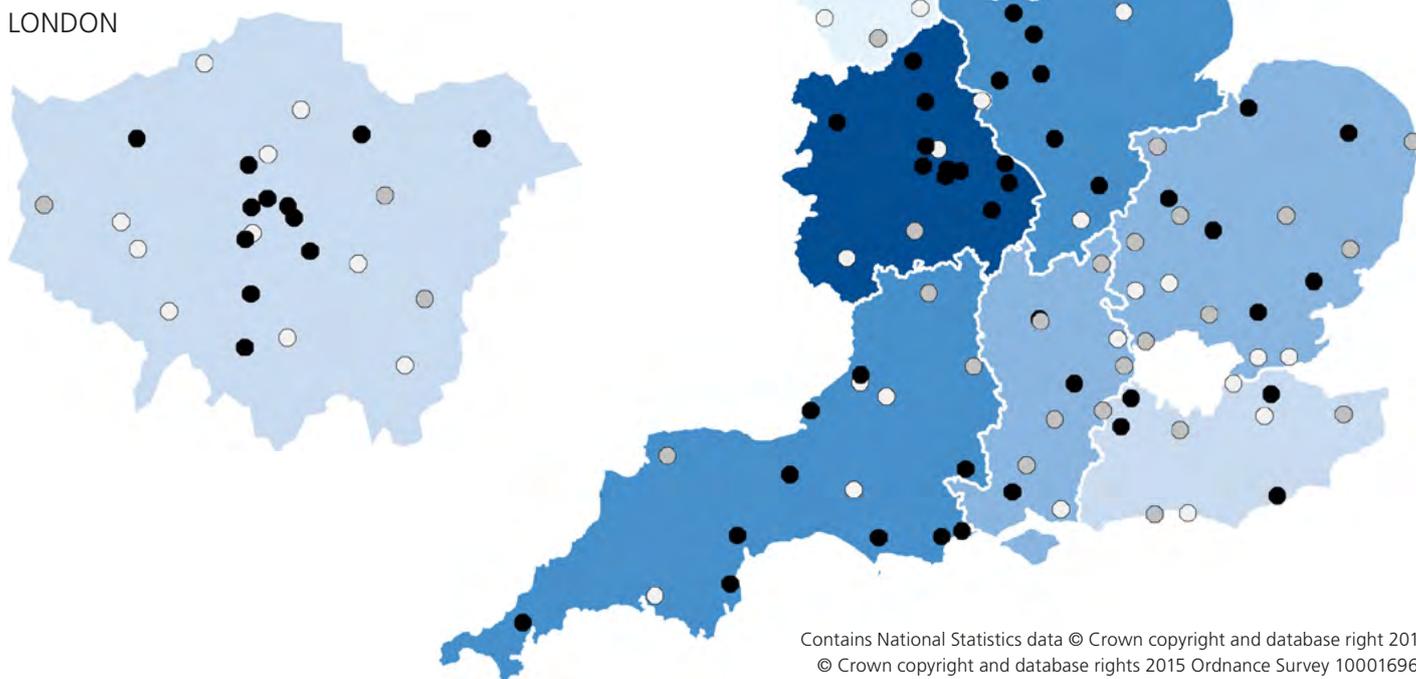
**SHA variation**



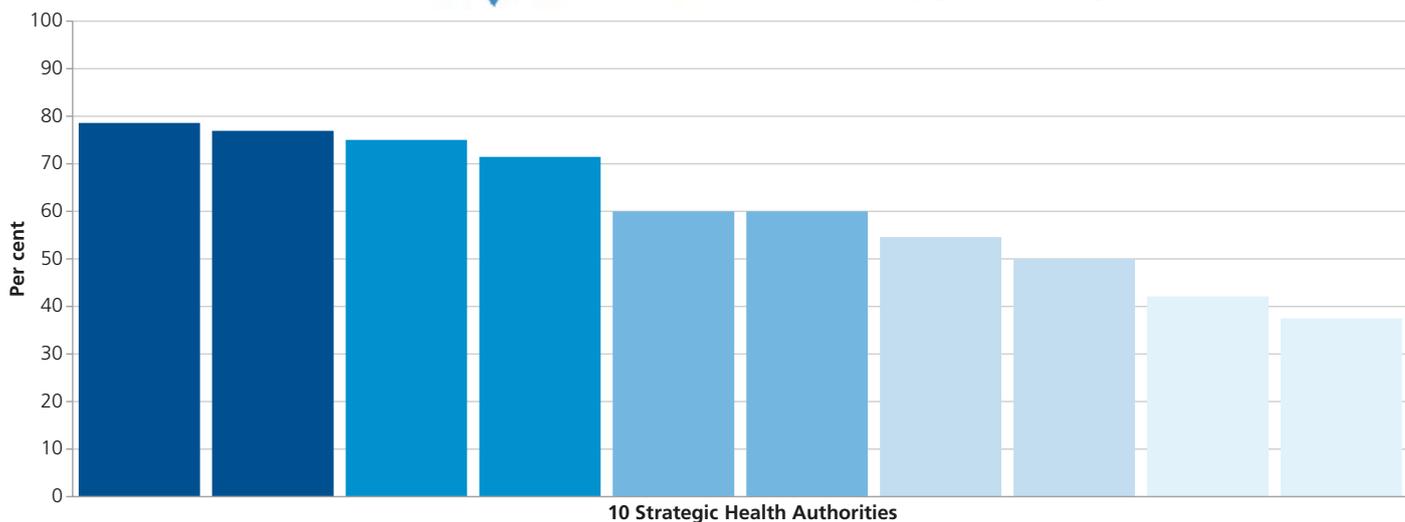
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10 Strategic Health Authorities

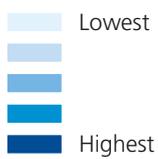
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# Map 101: Percentage of NHS Trusts that had formal arrangements for 24-hour access to embolisation for general haemorrhage by strategic health authority

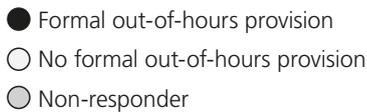
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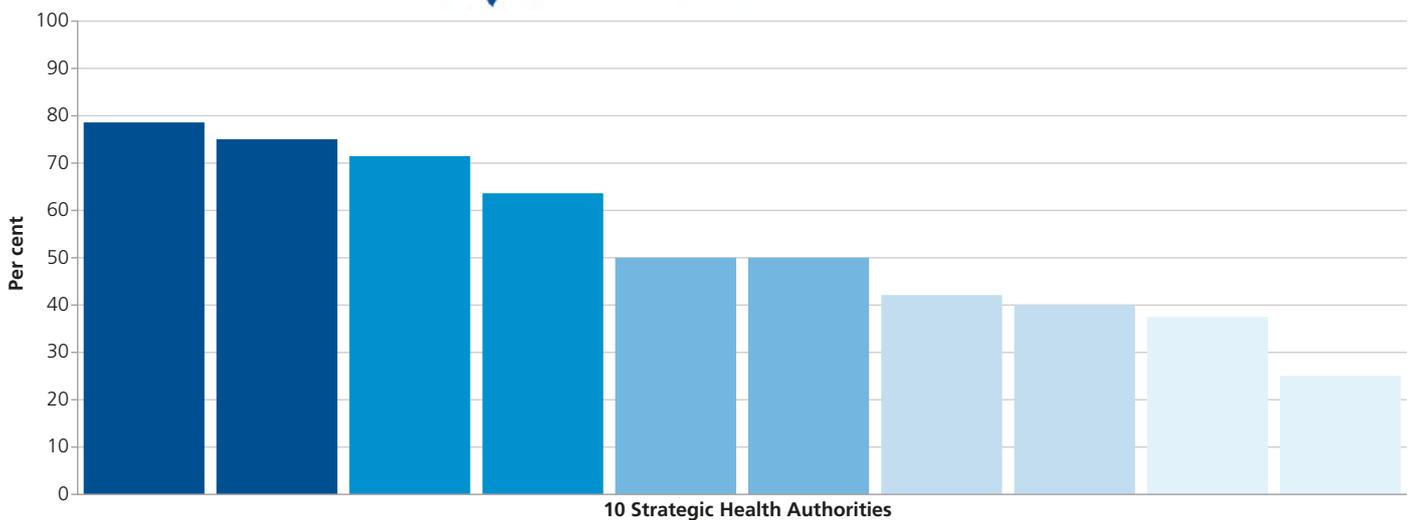
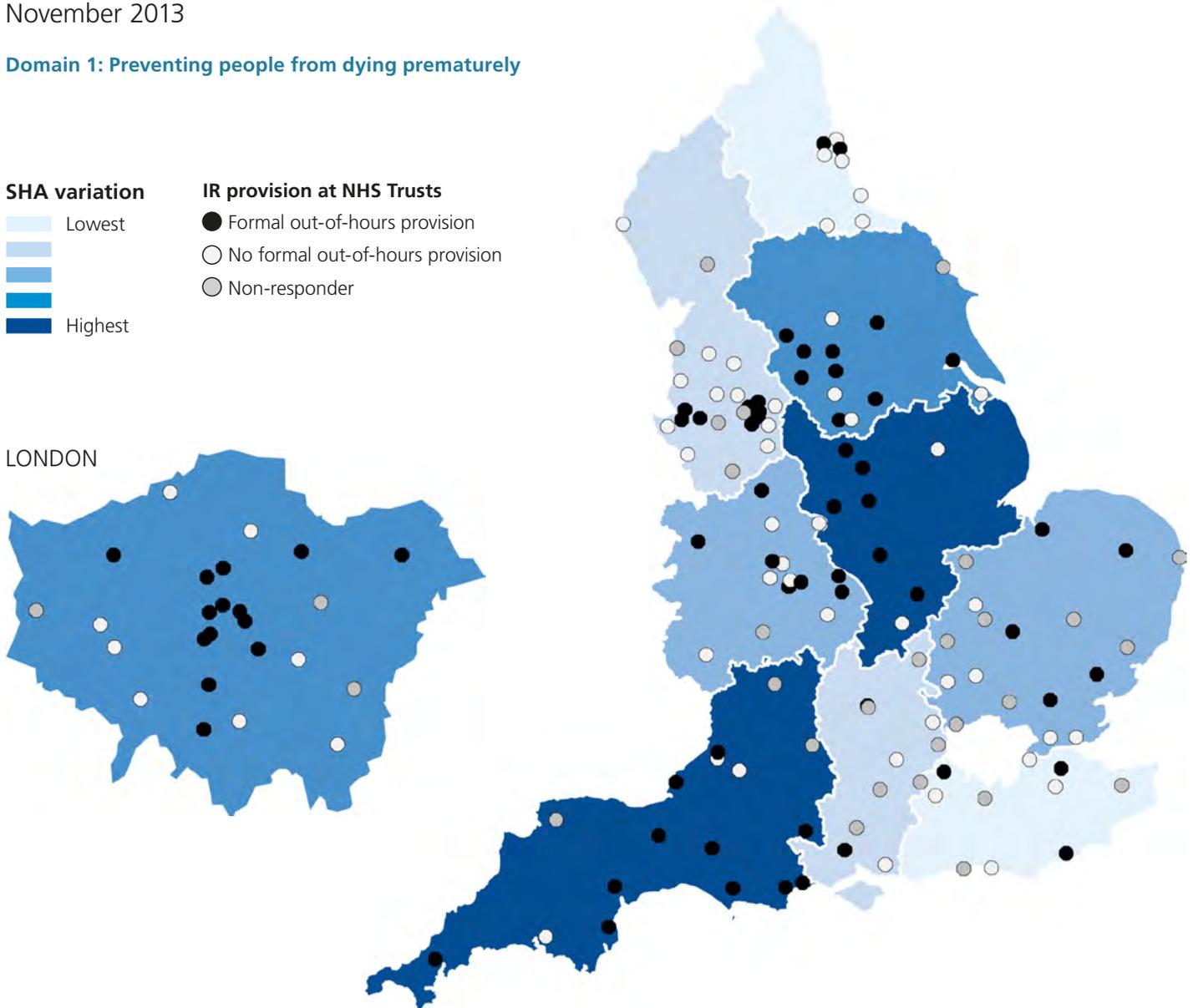
**SHA variation**



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NHS structure, it is a useful proxy measure for larger populations; moreover, the larger geography is relevant to the need to develop an optimal system for out-of-hours IR services via a network of providers across a geographical area (see Options for action).

## Magnitude of variation

### Map 99: Nephrostomy

For SHAs in England, the percentage of NHS Trusts that had formal arrangements for 24-hour access<sup>2</sup> to nephrostomy ranged from 40.0% to 78.6% (2.0-fold variation).

### Map 100: Endovascular intervention

For SHAs in England, the percentage of NHS Trusts that had formal arrangements for 24-hour access<sup>2</sup> to endovascular intervention ranged from 37.5% to 78.6% (2.1-fold variation).

### Map 101: Embolisation for general haemorrhage

For SHAs in England, the percentage of NHS Trusts that had formal arrangements for 24-hour access<sup>2</sup> to embolisation for general haemorrhage ranged from 25.0% to 78.6% (3.1-fold variation).

### Map 102: Embolisation for post-partum haemorrhage

For SHAs in England, the percentage of NHS Trusts that had formal arrangements for 24-hour access<sup>2</sup> to embolisation for post-partum haemorrhage ranged from 25.0% to 75.0% (3.0-fold variation).

For this series of four indicators, the reasons for the degree of variation observed are similar, the main one being differences in the availability of an appropriately skilled workforce, the components of which include differences in:

- interventional radiologist appointments;
- interventional nurse appointments;
- interventional nurse rota;
- interventional radiographer rota;
- network approach to service delivery;
- new interventional radiology facility.

The balance among these factors may be different at different NHS Trusts.

## Options for action

Commissioners need to work with service providers to consider what models of IR service provision are appropriate to provide safe and effective care seven days a week for their local population. Part of this consideration is whether it is appropriate for every hospital to deliver every IR intervention seven days a week. Commissioners need to explore whether it is possible to develop networks of service providers across a geographical area in order that everyone in need in the local population has access to IR.

### RESOURCES

- NHS Improving Quality. Interventional Radiology Provision in 2014. A Survey of English NHS Trusts. Carried out by NHS Improving Quality in conjunction with the British Society for Interventional Radiology. [http://www.nhs.uk/media/2647301/nhsiq\\_irsurvey.pdf](http://www.nhs.uk/media/2647301/nhsiq_irsurvey.pdf)
- The Royal College of Radiologists in collaboration with the British Society of Interventional Radiology. Provision of Interventional Radiology Services. October 2014.<sup>3</sup> [https://www.rcr.ac.uk/sites/default/files/publication/BFCR%2814%2912\\_POIR.pdf](https://www.rcr.ac.uk/sites/default/files/publication/BFCR%2814%2912_POIR.pdf)
- Interventional Radiology (IR): Improving Quality and Outcomes for Patients. A Report from the National Imaging Board. November 2009. [http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_109130](http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_109130)
- Interventional Radiology: guidance for service delivery. A Report from the National Imaging Board. Sponsored by the Department of Health. November 2010. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/215929/dh\\_122191.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/215929/dh_122191.pdf)
- NICE. Endovascular stent-grafts for the treatment of abdominal aortic aneurysms. NICE technology appraisal guidance [TA167]. February 2009. <http://www.nice.org.uk/guidance/TA167>
- Joint Working Group to produce guidance on delivering an Endovascular Aneurysm Repair (EVAR) Service. Royal College of Radiologists, British Society of Interventional Radiology, The Vascular Society of Great Britain and Ireland, The Vascular Anaesthesia Society of Great Britain and Ireland, and MHRA Committee on the Safety of Devices. Delivering an Endovascular Aneurysm Repair (EVAR) Service. December 2010. [http://www.vascularsociety.org.uk/wp-content/uploads/2012/11/mhra\\_8pp\\_leaflet\\_amended\\_more\\_pages\\_web\\_version.pdf](http://www.vascularsociety.org.uk/wp-content/uploads/2012/11/mhra_8pp_leaflet_amended_more_pages_web_version.pdf)

2 Formal arrangements for 24-hour access refers to sites where core service provision is provided on site or via formal network pathways to an agreed recipient trust.

3 This document will be subject to revision in November 2015.

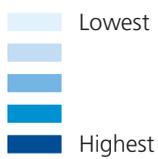
INTERVENTIONAL RADIOLOGY

# Map 102: Percentage of NHS Trusts that had formal arrangements for 24-hour access to embolisation for post-partum haemorrhage by strategic health authority

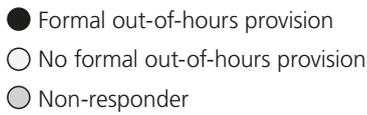
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