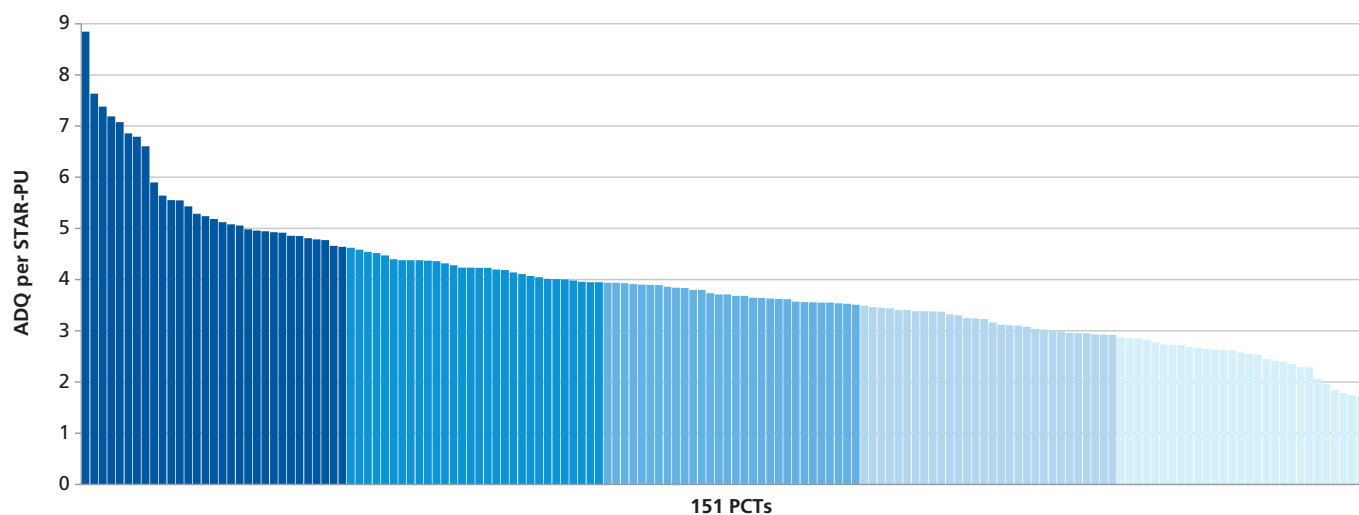
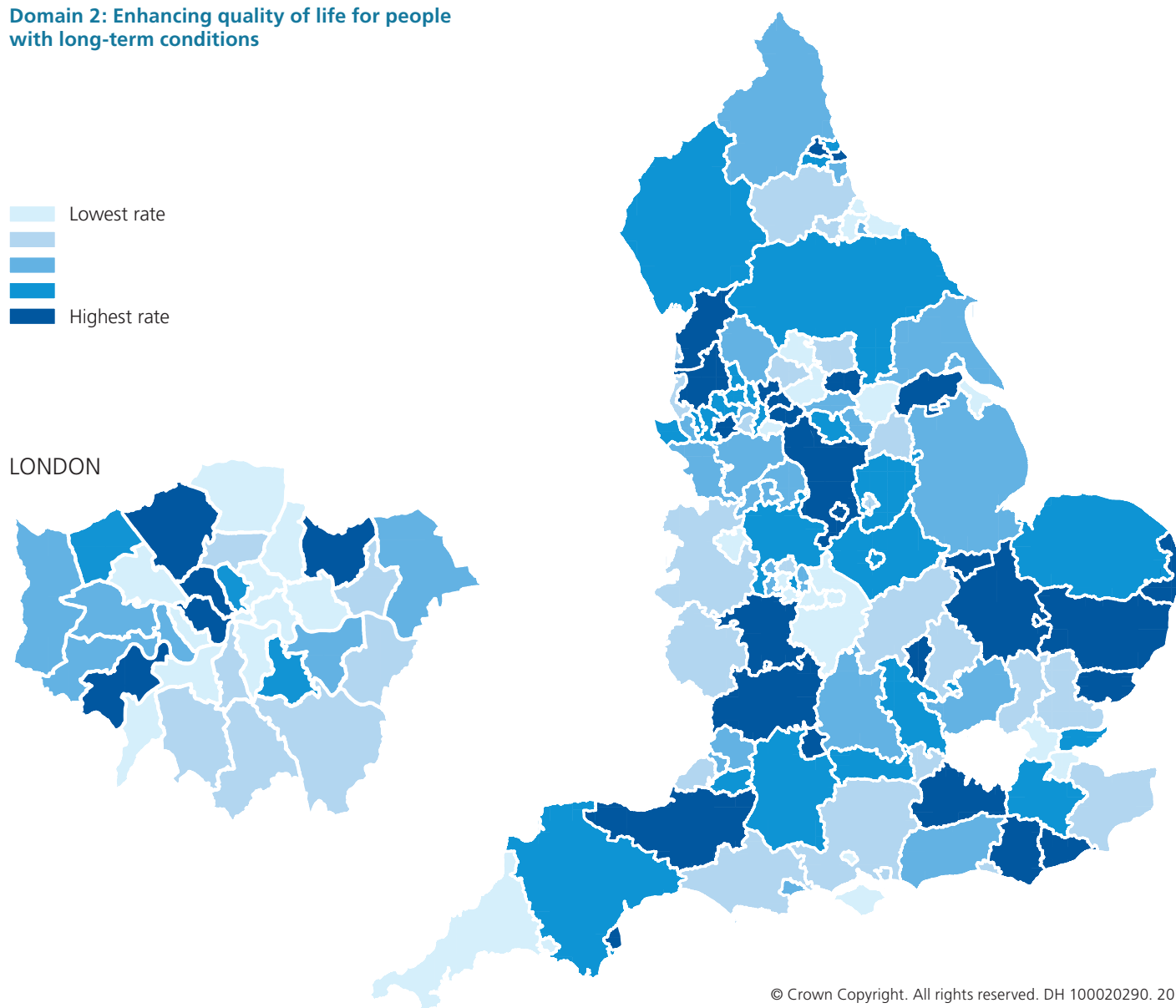


## NEUROLOGICAL PROBLEMS

## Map 19: Parkinson's disease drug items prescribed per weighted population (STAR-PU) in primary care by PCT

Average daily quantity (ADQ) per STAR-PU 2009/10

Domain 2: Enhancing quality of life for people with long-term conditions



## Context

Parkinson's disease is a long-term neurological condition affecting around 120,000 people in the UK. The risk of Parkinson's disease increases with age, and symptoms usually start to appear in people aged >50 years, although younger people can have the condition.

Although it is a neurological condition, not everyone with Parkinson's disease is referred to neurology departments. Geriatric medicine services are also skilled in the management of Parkinson's disease because most of the people with the condition are older. The model of care differs across the country.

There is no cure for Parkinson's disease, but there are treatments available, including medication, to control symptoms and improve people's quality of life.

Data for the numerator of this indicator are expressed as average daily quantities (ADQ), a measure of prescribing volume based on prescribing behaviour in England, representing the assumed average maintenance dose per day for a drug used for its main indication in adults (it is an analytical unit, not a recommended dose).<sup>1</sup> The patient denominator is expressed as Specific Therapeutic group Age-sex weightings Related Prescribing Units (STAR-PU).<sup>2</sup>

The variation in Parkinson's disease drug costs per weighted population in primary care by PCT 2009/10 is shown in the column chart below [numerator is net ingredient cost (NIC); denominator is STAR-PU].

## Magnitude of variation

For PCTs in England, Parkinson's disease drug items prescribed per weighted population in primary care ranged from 1.7 to 8.8 ADQ per STAR-PU (5-fold variation). When the five PCTs with the highest ADQ per STAR-PU and the five PCTs with the lowest ADQ per STAR-PU are excluded, the range is 2.0–6.9 ADQ per STAR-PU, and the variation is 3.5-fold.

One reason for variation in prescribing volume is differences in the prevalence of the condition. However, differences in prevalence alone cannot explain the degree of variation

observed; the data have been standardised for age, therefore some degree of variation is unwarranted.

For PCTs in England, Parkinson's disease drug costs per weighted population in primary care ranged from 1.0 to 2.1 NIC per STAR-PU (2.1-fold variation); see column chart below. When the five PCTs with the highest NIC per STAR-PU and the five PCTs with the lowest NIC per STAR-PU are excluded, the range is 1.1–1.9 NIC per STAR-PU, and the variation is 1.7-fold.

## Options for action

Research is needed to identify reasons for unwarranted variation: whether there is over-diagnosis and over-treatment in areas with higher prescribing volumes, under-diagnosis and under-treatment in areas with lower prescribing volumes, or a mixture of both occurring in the same area.

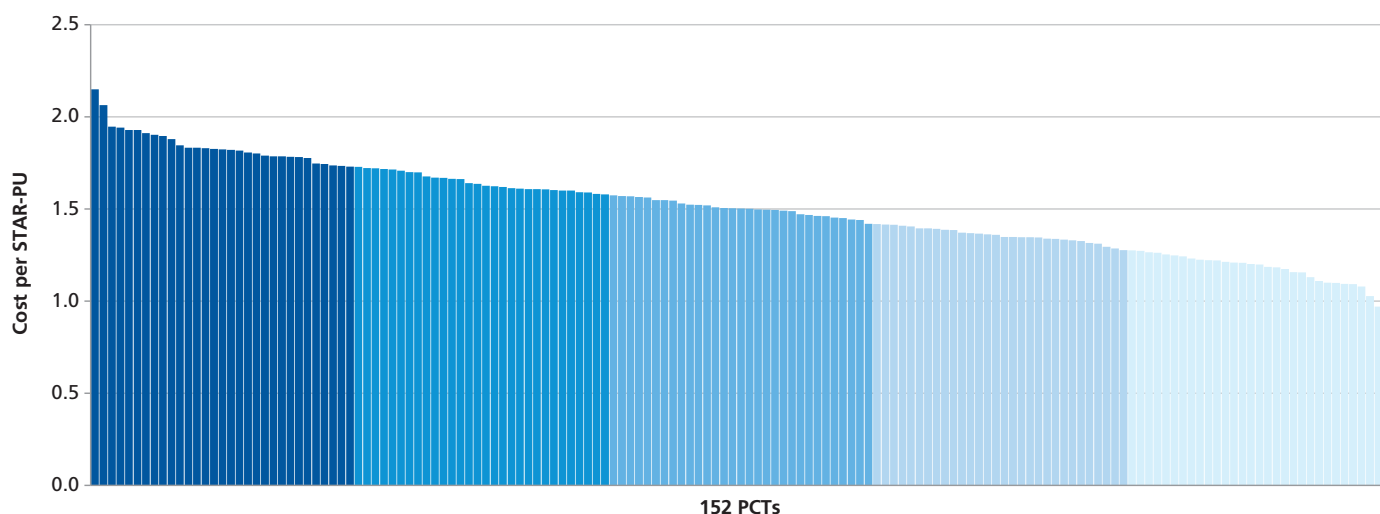
In the mean time, commissioners and providers need to review prescribing volumes and costs for drugs for Parkinson's disease to ensure that they meet the needs of the local population. Given the degree of variation, if medication could be provided at lower cost without reducing its effectiveness, this would release resources for the development of high-value specialist services, such as Parkinson's nurses. Parkinson's nurses help people come to terms with a diagnosis and to manage their medication, and make appropriate referrals to other health and social care professionals (see "Resources").

Parkinson's UK (formerly The Parkinson's Disease Society) is promoting equitable access to Parkinson's nurses, and standardised care for people with the condition.

## RESOURCES

- NICE Guidance CG35. Parkinson's disease (2006; update currently being scheduled into NICE work programme). <http://guidance.nice.org.uk/CG35>
- NHS Choices. Map of Medicine® Parkinson's disease – suspected. [http://healthguides.mapofmedicine.com/choices/map/parkinson\\_s\\_disease1.html](http://healthguides.mapofmedicine.com/choices/map/parkinson_s_disease1.html)
- Parkinson's UK (formerly The Parkinson's Disease Society) for information on Parkinson's nurses. <http://www.parkinsons.org.uk/>

## Parkinson's disease drug costs per weighted population (STAR-PU) in primary care by PCT 2009/10



<sup>1</sup> <http://www.ic.nhs.uk/services/prescribing-support-unit-psu/using-the-service/reference/measures/volume-measures/average-daily-quantities-adq>

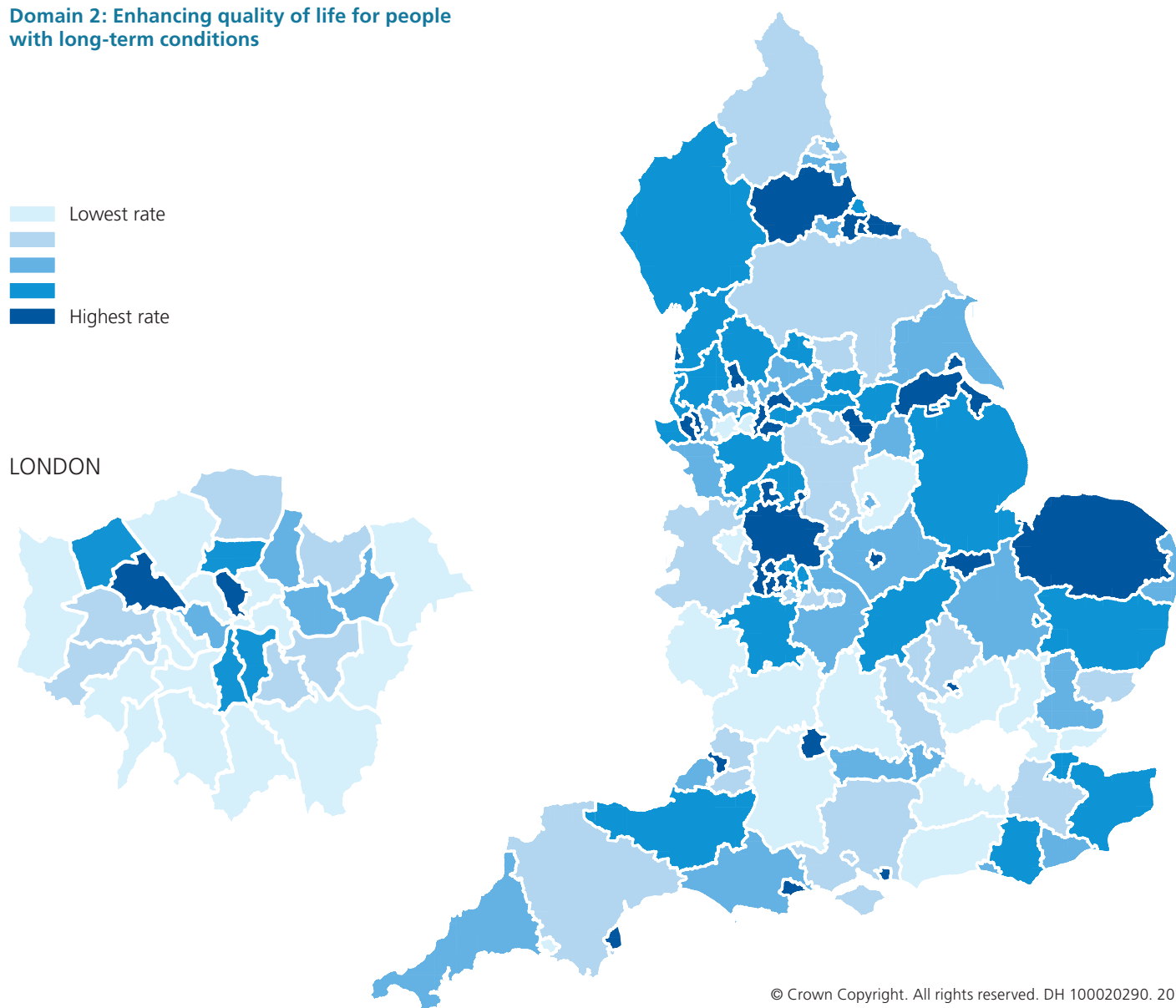
<sup>2</sup> <http://www.ic.nhs.uk/services/prescribing-support-unit-psu/using-the-service/reference/measures/patient-denominators/star-pus>

## NEUROLOGICAL PROBLEMS

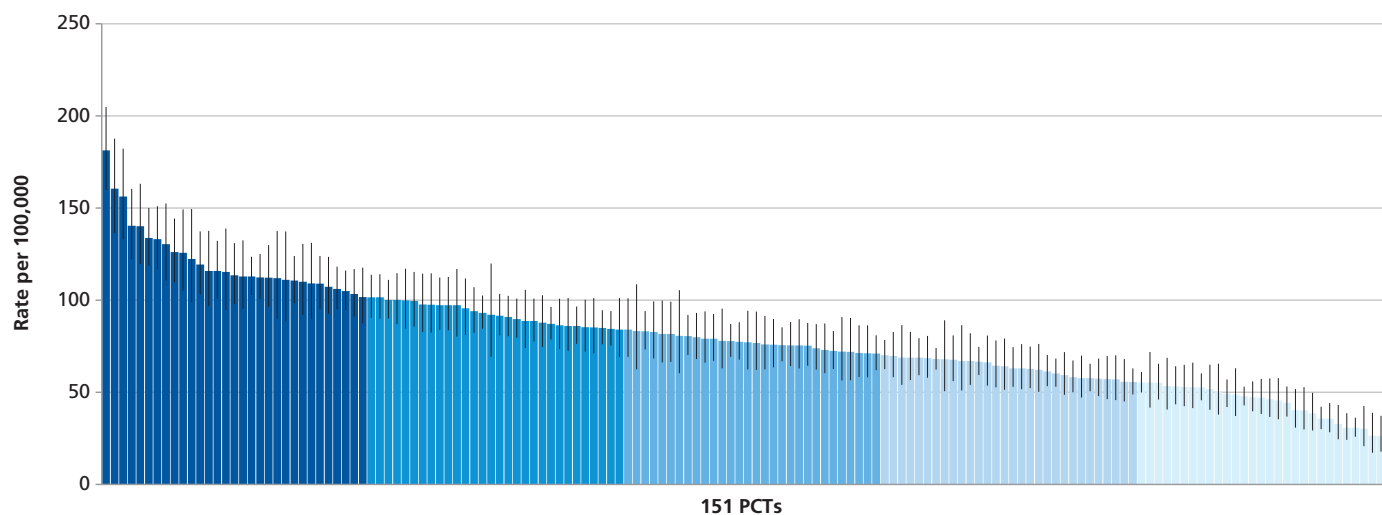
**Map 20:** Emergency admission rate for children with epilepsy per population aged 0–17 years by PCT

Directly standardised rate 2007/08–2009/10

Domain 2: Enhancing quality of life for people with long-term conditions



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## Context

Epilepsy is common in children, affecting approximately 48,000. Childhood epilepsy encompasses a range of disorders of varying complexity and diagnostic difficulty. Complex co-morbidities are more common in childhood than in adult epilepsy.

Unplanned hospitalisation for asthma, diabetes and epilepsy in children and young people under 19 years is a national quality indicator in the NHS Outcomes Framework 2011/12.

## Magnitude of variation

For PCTs in England, the emergency admission rate for children with epilepsy per 100,000 population aged 0–17 years ranged from 19.1 to 181.2 (9-fold variation). When the five PCTs with the highest emergency admission rates and the five PCTs with the lowest emergency admission rates are excluded, the range is 30.8–133.7 per 100,000 population aged 0–17 years, and the variation is 4.3-fold.

Epilepsy is more common in deprived populations. However, as the higher prevalence rate in socio-economically deprived populations is only about one-quarter greater than the mean rate, deprivation alone cannot explain this degree of variation.

Variations in emergency admission rates for children with epilepsy can reflect:

- the management of seizure control;
- emergency management of acute seizures;
- differences in the admission criteria of local departments.

The occurrence of seizures in childhood epilepsy can be unpredictable. For a few children long-term seizure control can be very difficult. These children could influence the number of emergency admissions in certain PCTs. However, as the numbers are so small, it is unlikely to account for the degree of variation observed in this indicator, particularly as the data are aggregated over a three-year period.

Variation is also seen in the prevalence of epilepsy, and the proportion of children diagnosed with epilepsy who do not have the disease. Epilepsy can be difficult to diagnose in children. In the absence of referral guidance and specialist expertise within a managed network setting, children with equivocal clinical presentations can often be wrongly diagnosed.<sup>1</sup>

## Options for action

Commissioners should consider the benefits of commissioning the following interventions for children with epilepsy.

- First seizure services to streamline investigation and diagnosis where possible.
- Integrated care pathways, including the development of personal management plans for children and their families.
- Specialist nurses in the epilepsy service, whose roles could include coordination of care pathway, family support, population education, and liaison with primary care and education services.
- Enhanced links with social care and education, including medication policies in schools.
- Specific services to aid the transition of children with epilepsy from paediatric to adult epilepsy services.

A managed network model of delivering epilepsy care will help to improve seizure control in many children with epilepsy and rationalise clinical decision-making about the need for admission.

## RESOURCES

- NICE Guidance. The epilepsies. The diagnosis and management of the epilepsies in adults and children in primary and secondary care. Clinical guideline 20. October 2004. <http://www.nice.org.uk/nicemedia/live/10954/29532/29532.pdf>
- British Paediatric Neurology Association runs courses in the UK for health professionals involved in the management of children with epilepsy. These courses help to ensure a consistent clinical approach to the diagnosis and management of epilepsy in children. <http://www.bpna.org.uk/pet/>
- Epilepsy 12 is a national audit of childhood epilepsy, monitoring performance of units against 12 key quality standards: 99% of eligible units have signed up. Outputs will be valuable for commissioners when assessing the performance of local providers. <http://www.rcpch.ac.uk/epilepsy12>
- Patient education and support is available from both national and local services. <http://www.epilepsy.org.uk/info>

*This indicator is from the Child Health Themed Atlas*

 **See what Right Care is doing about epilepsy on page 32**

<sup>1</sup> Uldall P, Alving J, Hansen LK, Kibæk, Buchholt J (2006) The misdiagnosis of epilepsy in children admitted to a tertiary epilepsy centre with paroxysmal events. *Archives of Disease in Childhood* 91: 219–221.