

Epilepsy12 2024 Outlier Management and Identification

How we identify outliers

As part of its annual reporting process the Epilepsy12 audit has conducted **Trust/Health Board outlier analyses on two audit measures for clinical 'cohort 5' (2022/23) data**. The purpose of the outlier process is to identify and highlight variation, enable local review of the causes of that variation and stimulate quality improvement.

In our 2024 analysis, two metrics have been used to define outlier status within the Epilepsy12 audit:

1. **Epilepsy Specialist Input (ESN) input** – Percentage of children and young people with input by an ESN within the first year of care.
2. **Tertiary input** - Percentage of children and young people meeting defined criteria for paediatric neurology referral, with input of tertiary care and/or CESS referral by first year.

**Note that case ascertainment has been suspended from the 2024 outlier analyses.*

Eligible Health Boards and Trusts who did not submit at least one first year of care form within the current cohort were identified as '**non-participation**' outliers. Eligibility is defined as having undertaken a first paediatric assessment for one of more patients with suspected epilepsy.

Epilepsy12 defines outlier status as being outside of **2 or 3 standard deviations** from the national (England and Wales combined) average. Depending on the measure, negative and positive outlier status can be defined.

For negative outlier status, '**alert**' status is defined as outside 2 standard deviations from the national average and '**alarm**' when outside of 3 standard deviations. For positive outlier status '**excellent**' or '**outstanding**' performance are defined respectively as 2 and 3 standard deviations above the average.

Following the data submission deadline for cohort 5 clinical data, a definitive download of data was taken on **18 January 2024** in order to carry out the annual analysis and reporting, including the outlier analysis. Any data submitted after this date was excluded from the analyses.

Health Board/Trust level reports of these data and provisional outlier notifications were both shared with the relevant Trusts/Health Boards in April 2024. Following the conclusion of the outlier identification and management process, the results have been confirmed with the relevant Trusts/Health Boards and have been communicated to the Care Quality Commission (CQC) and the Welsh Government in July 2024.

For full details, please see the [Epilepsy12 Outlier Policy](#). Epilepsy12 guidance follows the [Healthcare Quality Improvement Partnership \(HQIP\) outlier guidance for England and Wales](#).

Results

Figure 1 and figure 2 show funnel plots of the results of the outlier analyses. Below are the Trusts and Health Boards in England and Wales identified as positive, negative and non-participation outliers.

The full results of the 2024 combined clinical and organisational audit, including extended analyses and datasets, can be found on our [website](#).

Figure 1 – Funnel plot for ESN input

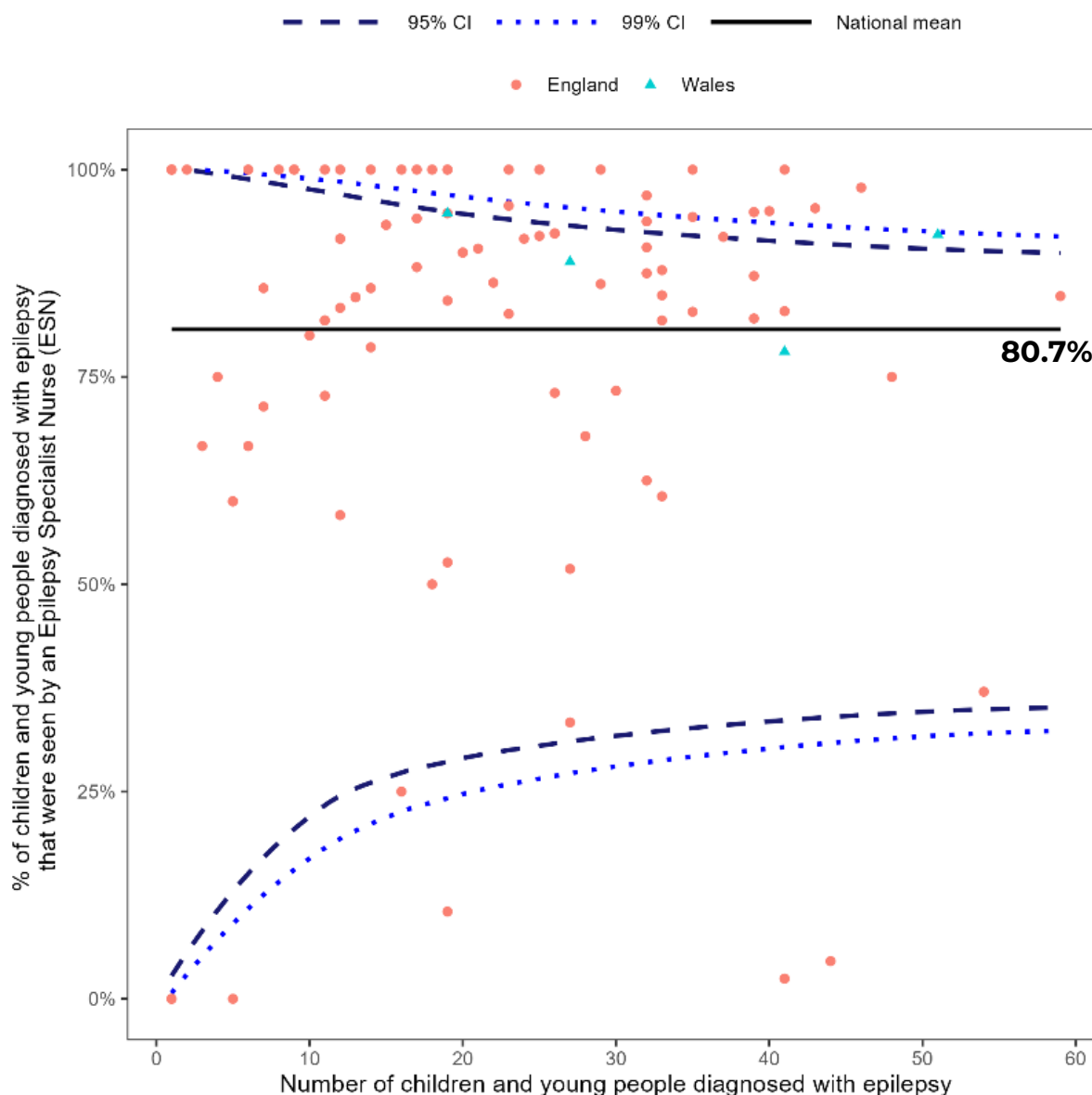
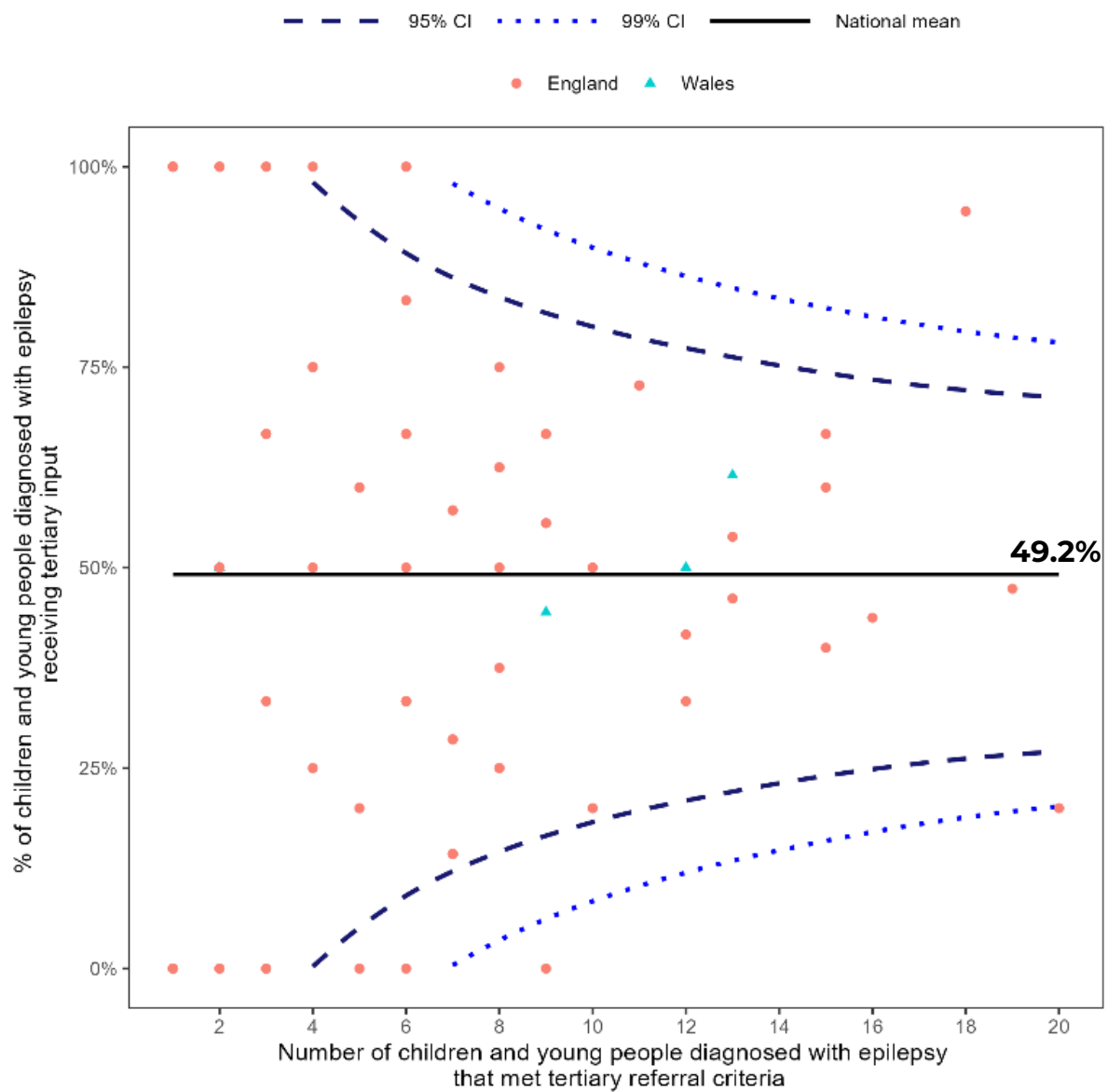


Figure 2 – Funnel Plot for Tertiary Input



NON-PARTICIPATION OUTLIERS		
HEALTH BOARD/TRUST	HBT CODE	COMMENTS
Alder Hey Children's NHS Foundation Trust	RBS	Additional nursing and admin hours have been agreed to support Epilepsy12 participation, recruitment has begun to fill a neurology admin vacancy and audit duties will be incorporated into job plans for the clinical team.
Birmingham Community Healthcare NHS Foundation Trust	RYW	The Trust had planned to take part in cohort 5 but could not, due to capacity and demand issues, absence of an ESN, various staff leave and the cessation of communication with the EEG department. NHS England ESN funding should improve participation in future.
Brighton and Sussex University Hospitals NHS Trust	RXH	No acknowledgment received from Trust by 28/06/24.
Coventry and Warwickshire Partnership NHS Trust	RYG	No acknowledgment received from Trust by 28/06/24.
East Cheshire NHS Trust	RJN	No acknowledgment received from Trust by 28/06/24.
East Kent: QEQM, Margate and WHM, Ashford, Kent	RTX	No acknowledgment received from Trust by 28/06/24.
James Paget University Hospitals NHS Foundation Trust	RGP	Changes already being made within the team to improve audit participation engagement. These include onboarding all team members onto the new data platform, direct consultant involvement in data entry and regular team meetings to discuss progress and performance. As such, the Trust has excellent engagement with cohort 6, with all records up to date.
Leeds Community Healthcare NHS Trust	RY6	The Trust has been facing staffing and communication challenges. An action plan is being created by the clinical team to increase audit participation.
Medway NHS Foundation Trust	RPA	Please note that the Trust raised their non-participation in the audit with the Epilepsy12 team last year, and after hearing of their challenges that came with being a new service, the Epilepsy12 team advised them to focus on cohort 6 data entry rather than prospectively entering cohort 5 data. This unfortunately did not align with the new outlier guidance published in 2024 describing the identification of non-participation outliers. The Trust has excellent engagement with cohort 6, with all records up to date on the new platform.
Milton Keynes University Hospital NHS Foundation Trust	RD8	The Trust have agreed to participate in Epilepsy12 going forward, risk assess the paediatric epilepsy service as a priority, consider recruiting a paediatric ESN and undertake QI projects relevant to the paediatric epilepsy service and audit.
Plymouth Hospitals NHS Trust	RK9	No acknowledgment received from Trust by 28/06/24. Please note that after hearing of the Trust's capacity issues, the Epilepsy12 team advised the team to focus on cohort 6 data entry rather than prospectively entering cohort 5 data. This unfortunately did not align with the new outlier guidance published in 2024 describing the identification of non-participation outliers.

Portsmouth Hospitals NHS Trust	RHU	No further comments received from Trust by 28/06/24.
Royal United Hospitals Bath NHS Foundation Trust	RD1	The clinical team have requested support from the Trust audit team, after this was withdrawn earlier, to help with data entry.
Sandwell and West Birmingham Hospitals NHS Trust	RXK	An action plan is in place from the 2023 outlier notification. The Trust has been unable to submit data to Epielsy12 due to limited resources but have an assurance audit in place for cohort 5 patients and are working on standardising documentation and setting up data pulls. The team have initiated data submission for cohort 6.
Sheffield Children's NHS Foundation Trust	RCU	Staffing and resource challenges lead to the Trust's non-participation in the audit.
Solent NHS Trust	RIC	A plan is in place for the Trust to contribute to next year's Epilepsy12 audit, and to consider local audit review needs that may be more specific and relevant to their service.
Surrey and Sussex Healthcare NHS Trust	RTP	No acknowledgment received from Trust by 28/06/24.
Sussex Community NHS Foundation Trust	RDR	The Trust will complete data entry for cohort 6, including case load reviews and clinical reporting processes via EPRs. A CNS has also been employed to support data entry.
The Royal Wolverhampton NHS Trust	RL4	Following the outlier notification, an administrator is now in post to support future data entry.
University Hospital Southampton NHS Foundation Trust	RHM	The Trust were previously unable to participate in the audit due to capacity issues but have since re-started data entry on the new platform for cohort 6.
University Hospitals Birmingham NHS Foundation Trust	RR1	No acknowledgment received from Trust by 28/06/24.
University Hospitals Bristol and Weston NHS Foundation Trust	RA7	The outlier status has been raised with the Trust senior management team.
University Hospitals of Morecambe Bay NHS Foundation Trust	RTX	No acknowledgment received from Trust by 28/06/24.
Western Sussex Hospitals NHS Foundation Trust	RYY	Reduced ESN funding and hours and increased service activity have impacted the Trust's audit participation.
Worcestershire Health and Care NHS Trust	RIA	After a period of no ESN provision, a business case was recently approved, and a job description is being created. Once an ESN is in post, Epilepsy12 participation should improve.
Cardiff & Vale University Health Board	7A4	A few clinicians were either not in post or on leave. A new main lead clinician was appointed as of 16/05/2024 and has been sent the outlier information.
Hywel Dda University Health Board	7A2	Their Health board has now provided them with an administrator for data entry.

NEGATIVE OUTLIER STATUS

ALARM

HEALTH BOARD/TRUST	TRUST CODE	MEASURE	COMMENTS
Barking, Havering and Redbridge University Hospitals NHS Trust	RF4	ESN	The Trust has filled a vacant post, where a new ESN started in September 2023, and improvements are therefore expected in cohort 6 and beyond.
Birmingham Women's and Children's NHS Foundation Trust	RQ3	ESN	No acknowledgment received from Trust by 28/06/24.
Gateshead Health NHS Foundation Trust	RR7	ESN	A PESN has been in post since April 2024, with 2 years external funding secured and further funding opportunities being sought, which will lead to improvements in future cohorts.
Isle of Wight NHS Trust	R1F	ESN	The Trust currently has no ESN provision. Following two unsuccessful business cases, the issue has been raised with senior leadership team and flagged as 'high risk' on the Trust's risk register. The team are working through an action plan and have also participated in the RCPCH Epilepsy Quality Improvement Programme (EQIP) this year.
Nottingham University Hospitals NHS Trust	RX1	ESN	No acknowledgment received from Trust by 28/06/24.
United Lincolnshire Hospitals NHS Trust	RWD	ESN	No acknowledgment received from Trust by 28/06/24.
Blackpool Teaching Hospitals NHS Foundation Trust	RXL	Tertiary Input	No acknowledgment received from Trust by 28/06/24.
Mersey and West Lancashire Teaching Hospitals	RBN1	Tertiary Input	The Trust and the Region has had significant difficulties accessing tertiary care, with tertiary neurology capacity issues and cessation of joint clinics for 18 months. The team have discussed the outlier status in their clinical effectiveness committee and received an action plan on 20/5/24.

ALERT

The Newcastle Upon Tyne Hospitals NHS Foundation Trust	RTD	ESN	The Trust did not have an ESN in post until Sept 22. Cohort 5 data was incomplete as there was no time in consultant's job for E12.
Barking, Havering and Redbridge University Hospitals NHS Trust	RF4	Tertiary Input	
Calderdale and Huddersfield NHS Foundation Trust	RWY	Tertiary Input	

POSITIVE OUTLIER STATUS			
HEALTH BOARD/TRUST	TRUST CODE	MEASURE	OUTLIER TYPE
North West Anglia NHS Foundation Trust	RGN1	ESN	Excellent
Northern Lincolnshire and Goole NHS Foundation Trust	RJL	ESN	Excellent
The Whittington Hospital NHS Trust	RKE	ESN	Excellent
Cwm Taf Morgannwg University Health Board	7A5	ESN	Excellent
Blackpool Teaching Hospitals NHS Foundation Trust	RXL	ESN	Outstanding
Bolton NHS Foundation Trust	RMC	ESN	Outstanding
Bradford Teaching Hospitals NHS Foundation Trust	RAE	ESN	Outstanding
Calderdale and Huddersfield NHS Foundation Trust	RWY	ESN	Outstanding
Central and North West London NHS Foundation Trust	RV3	ESN	Outstanding
East and North Hertfordshire NHS Trust	RWH	ESN	Outstanding
East Suffolk and North Essex NHS Foundation Trust	RDE1	ESN	Outstanding
East Sussex Healthcare NHS Trust	RXC	ESN	Outstanding
Epsom and St Helier University Hospitals NHS Trust	RVR	ESN	Outstanding
Gloucestershire Hospitals NHS Foundation Trust	RTE	ESN	Outstanding
Homerton University Hospital NHS Foundation Trust	RQX	ESN	Outstanding
Hull and East Yorkshire Hospitals NHS Trust	RWA	ESN	Outstanding
Kingston Hospital NHS Foundation Trust	RAX	ESN	Outstanding
Lewisham and Greenwich NHS Trust	RJ2	ESN	Outstanding
London North West Healthcare NHS Trust	R1K	ESN	Outstanding
Luton and Dunstable University Hospital NHS Foundation Trust	RC9	ESN	Outstanding
Mersey and West Lancashire Teaching Hospitals	RBN1	ESN	Outstanding
Royal Devon University Healthcare NHS Foundation Trust	RH81	ESN	Outstanding
Royal Surrey Hospital NHS Foundation Trust	RA2	ESN	Outstanding

St George's University Hospitals NHS Foundation Trust	RJ7	ESN	Outstanding
The Dudley Group NHS Foundation Trust	RNA	ESN	Outstanding
The Hillingdon Hospitals NHS Foundation Trust	RAS	ESN	Outstanding
The Princess Alexandra Hospital NHS Trust	RQW	ESN	Outstanding
University Hospitals of North Midlands NHS Trust	RJE	ESN	Outstanding
Warrington and Halton Hospitals NHS Foundation Trust	RWW	ESN	Outstanding
West Hertfordshire Hospitals NHS Trust	RWG	ESN	Outstanding
Wirral University Teaching Hospital NHS Foundation Trust	RBL	ESN	Outstanding
Worcestershire Acute Hospitals NHS Trust	RWP	ESN	Outstanding
Wrightington, Wigan and Leigh NHS Foundation Trust	RRF	ESN	Outstanding
Wye Valley NHS Trust	RLQ	ESN	Outstanding
York and Scarborough Teaching Hospitals NHS Foundation Trust	RCB	ESN	Outstanding
Blackpool Teaching Hospitals NHS Foundation Trust	RXL	ESN	Outstanding
Countess of Chester Hospital NHS Foundation Trust	RJR	Tertiary Input	Excellent
Leeds Teaching Hospitals NHS Trust	RR*	Tertiary Input	Excellent
Wirral University Teaching Hospital NHS Foundation Trust	RBL	Tertiary Input	Excellent
Oxford University Hospitals NHS Foundation Trust	RTH	Tertiary Input	Outstanding