

NPDA 2024-25 Report – Outlier Management and Identification

How we identify outliers

The National Paediatric Diabetes Audit (NPDA) has conducted an outlier analysis as part of the **2024-25 Report on Care and Outcomes**. The purpose of the outlier process is identify and highlight variation, enabled local review of the causes of that variation, and stimulate quality improvement.

In the 2024-25 analysis, 2 metrics have been used to define outlier status within the NPDA:

1. **Mean HbA1c**

This is the mean HbA1c at PDU-level. From 2024-25 onwards, mean HbA1c has not been adjusted.

The NPDA identifies **alert level** negative outliers between 1 and 3 standard deviations below the national mean, and **alarm level** outliers at 2 or more standard deviations below the national mean. PDUs performing 3 or more standard deviations above the national mean are identified as positive outliers.

2. **Health Check Completion Rate**

This is the percentage of expected health checks completed. All children and young people with Type 1 diabetes who have completed a full year of care should receive the following health checks: HbA1c, BMI, and thyroid screen. Additionally, young people with type 1 diabetes over the age of 12 should have the following health checks: foot examination, screening for albuminuria, and blood pressure.

The NPDA identifies **alert level** negative outliers as those in the bottom 5% of PDUs, and those in the bottom 3% as **alarm level** outliers. PDUs in the top 3 are identified as positive outliers.

Furthermore, non-participating paediatric diabetes units will be treated as alarm level outlier for all eligible metrics.

Further information on how these measures are calculated is available in the [NPDA Outlier Identification and Management Policy](#). This follows the [Healthcare Quality Improvement Partnership \(HQIP\) outlier guidance for England and Wales](#).

Results

PDU level reports of these data and provisional outlier notifications were shared with PDUs in November 2025. Following the conclusion of the outlier identification and management process for 2024-25, the results have been confirmed with the relevant PDUs and communicated to the Care Quality Commission (CQC) and Welsh Government in February 2025. No non-participation outliers were identified in 2024-25.

The full results of the 2024-25 NPDA Report on Care and Outcomes are available on our [website](#).

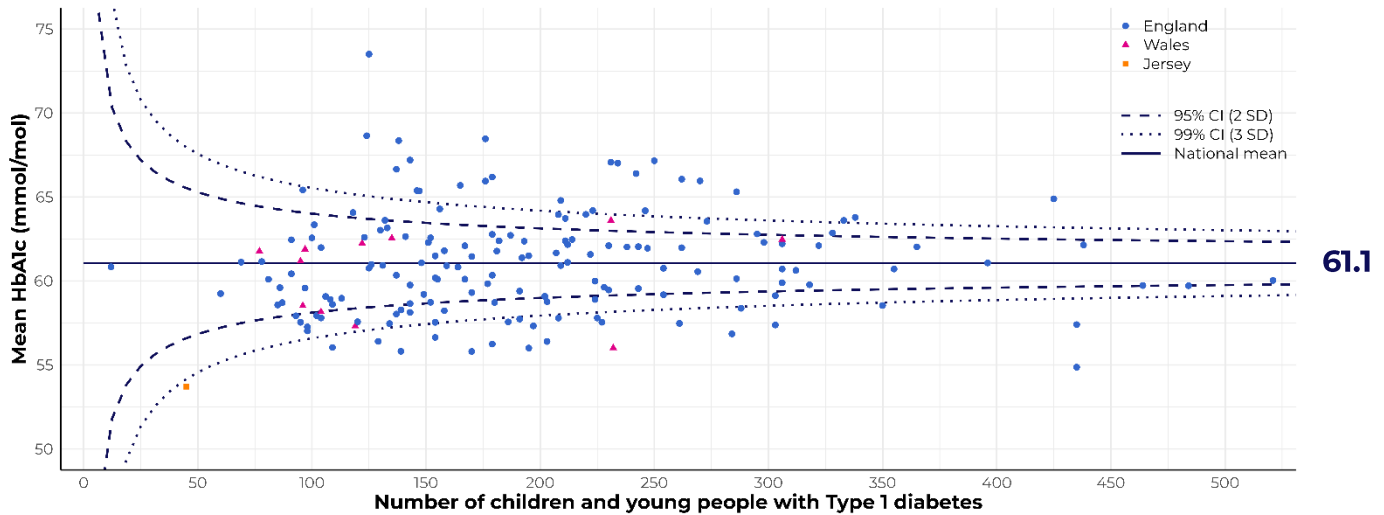


Figure 1 – Funnel plot of mean HbA1c by PDU for children and young people with Type 1 diabetes.

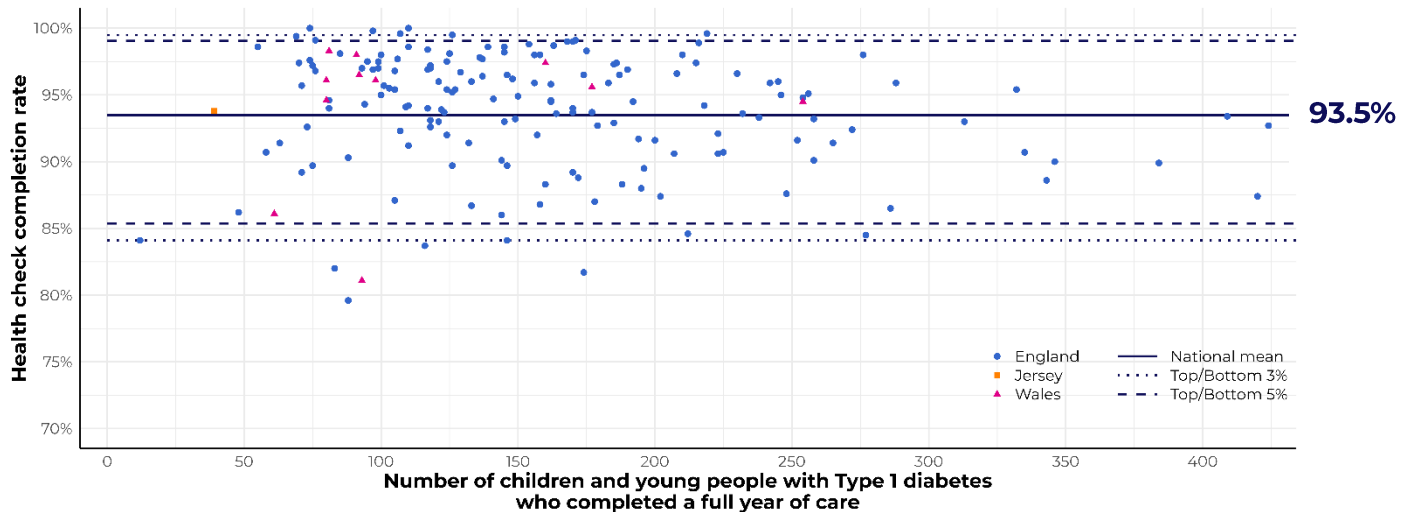


Figure 2 – Health check completion rate for children and young people with Type 1 diabetes who completed a full year of care

Table 1 – Outlier results for mean HbA1c in 2024-25.

PZ code	Name of unit	Mean HbA1c	Outlier status 2024-25	Comments
PZ004	Northampton General Hospital	64.80	Alarm	We have received acknowledgement from the clinical lead.
PZ005	Derbyshire Children's Hospital	57.38	Positive Outlier	
PZ006	Doncaster Royal Infirmary	57.33	Positive Outlier	
PZ007	John Radcliffe Hospital	58.54	Positive Outlier	
PZ010	Luton and Dunstable Hospital	64.20	Alarm	We have received acknowledgement from the clinical lead.
PZ020	Diana, Princess of Wales Hospital, Grimsby	55.81	Positive Outlier	
PZ023	St George's Hospital, London	65.39	Alarm	We have received acknowledgement from the clinical lead.
PZ026	Hull Royal Infirmary	58.38	Positive Outlier	
PZ028	Stoke Mandeville Hospital	56.04	Positive Outlier	
PZ032	Great North Children's Hospital	62.81	Alert	
PZ042	Nottingham Children's Hospital	54.87	Positive Outlier	
PZ049	Warrington Hospital	56.64	Positive Outlier	
PZ050	Epsom & St Helier University Hospitals NHS Trust	64.19	Alarm	We have received acknowledgement from the clinical lead.
PZ064	Chesterfield Royal Hospital	55.80	Positive Outlier	
PZ069	Stepping Hill Hospital	57.73	Positive Outlier	
PZ075	St Mary's Hospital, Isle of Wight	65.42	Alert	
PZ076	Colchester General Hospital	67.16	Alarm	We have received acknowledgement from the clinical lead, along with an action plan including additional intervention for those with high HbA1c, increasing access to HCLs, and arranging psychology clinics for newly diagnosed patients. In the quarterly reports, the unit has seen improvements in its HbA1c.
PZ080	Sunderland Royal Hospital	57.80	Positive Outlier	
PZ082	Evelina Children's Hospital	67.20	Alarm	We have received acknowledgement from the clinical lead, along with a note that the unit has made significant improvements in the latest audit year.
PZ089	Northwick Park Hospital	66.40	Alarm	We have received acknowledgement from the clinical lead.
PZ097	Midland Metropolitan University Hospital	64.08	Alert	

PZ099	Queen Elizabeth II Hospital	63.61	Alarm	We have received acknowledgement from the clinical lead.
PZ104	Royal Albert Edward Infirmary	64.29	Alert	
PZ106	Victoria Hospital, Blackpool	65.69	Alarm	We have received acknowledgement from the clinical lead.
PZ113	University Hospital of Wales	63.61	Alert	
PZ118	University Hospital Lewisham	68.65	Alarm	We have received acknowledgement from the clinical lead, along with a note that the unit services a deprived area and has an ongoing programme to ensure access to diabetes technologies for those living in deprived areas.
PZ120	Northumbria Healthcare	56.40	Positive Outlier	
PZ122	University Hospital, Coventry	66.07	Alarm	We have received acknowledgement from the clinical lead.
PZ126	Medway Maritime Hospital	62.86	Alert	
PZ127	James Paget Hospital	68.36	Alarm	We have received acknowledgement from the clinical lead.
PZ130	Chelsea and Westminster Hospital	65.95	Alarm	We have received acknowledgement from the clinical lead, along with a note that they have been an outlier previously and have made a notable improvement in HbA1c and HCL uptake in the past year, as well as the establishment of a High HbA1c clinic. There is still a need for additional staffing.
PZ136	Royal Manchester Children's Hospital - Oxford Road Campus	65.32	Alarm	We have received acknowledgement from the clinical lead, along with a response stating that the unit has faced staffing shortages and sickness, and will look into the reviewing the delivery of MDT clinics and access to technology at diagnosis.
PZ137	Musgrove Park Hospital	63.96	Alert	
PZ140	Tameside General Hospital	73.51	Alarm	We have received acknowledgement from the clinical lead, along with a note that the unit has been identified as an outlier previously and has an ongoing business case to secure staffing increases. Additional staffing, in particular DSN time, would support the unit to fully

				implement their High HbA1c policy.
PZ144	Good Hope Hospital, Sutton Coldfield	56.25	Positive Outlier	
PZ146	Southend University Hospital	57.55	Positive Outlier	
PZ151	Queen Elizabeth Hospital, Woolwich	67.02	Alarm	We have received acknowledgement from the clinical lead.
PZ156	Queen Elizabeth Hospital, Kings Lynn	65.37	Alarm	We have received acknowledgement from the clinical lead, along with a note that the unit has a higher proportion of CYP living in deprived areas compared to the national average, which will impact local HbA1c results. The unit's HbA1c for the least deprived quintiles is lower than the national average.
PZ163	University Hospital of North Tees and University Hospital of Hartlepool	57.80	Positive Outlier	
PZ164	Rotherham Hospital	56.41	Positive Outlier	
PZ170	Arrowe Park Hospital	57.56	Positive Outlier	
PZ174	Kettering General Hospital	63.97	Alert	
PZ179	Countess of Chester Hospital NHS Trust	66.19	Alarm	We have received acknowledgement from the clinical lead, along with a note that the unit has a higher proportion of young people aged 16-19yrs, who typically have higher HbA1c outcomes.
PZ180	Kings Mill Hospital	56.01	Positive Outlier	
PZ186	Calderdale & Huddersfield NHS Foundation Trust	67.08	Alarm	We have received acknowledgement from the clinical lead.
PZ203	University College London Hospital	57.40	Positive Outlier	
PZ213	East Surrey Hospital	65.96	Alarm	We have received acknowledgement from the clinical lead, along with a note that the unit has faced delays in HCL funding and experienced staffing shortages in the past year, falling short of recommended ratios.
PZ215	Kings College Hospital, London	66.66	Alarm	We have received acknowledgement from the clinical lead, along with a note that the unit has been an outlier in the previous year but has seen an improvement. The unit has a higher proportion of older patients, who typically have a higher mean HbA1c.
PZ218	Frimley Park Hospital	57.48	Positive Outlier	

PZ219	Sheffield Childrens Hospital	56.85	Positive Outlier	
PZ220	Bedford Hospital	68.47	Alarm	We have received acknowledgement from the clinical lead, along with a notes that the unit has been identified as an outlier in previous years and has ongoing discussions to identify additional funding and resources.
PZ222	New Cross Hospital, Wolverhampton	63.56	Alert	
PZ232	BHR University Hospitals NHS Trust	64.89	Alarm	We have received acknowledgement from the clinical lead.
PZ240	Russells Hall Hospital	63.73	Alert	
PZ244	Hywel Dda University Health Board	56.01	Positive Outlier	
PZ246	The Northern Care Alliance NHS Foundation Trust (Rochdale, Bury & Oldham)	63.79	Alarm	We have received acknowledgement from the clinical lead and the team has developed an action plan.
PZ248	Jersey General Hospital	53.71	Positive Outlier	

Table 2 – Outlier results for health check completion rate in 2024-25

PZ code	Name of unit	Completion rate	Outlier status 2024-25	Comments
PZ001	Morrison Hospital	81.1%	Alarm	We have received acknowledgement from the clinical lead.
PZ009	Macclesfield District General Hospital	79.6%	Alarm	We have received acknowledgement from the clinical lead, along with a response stating that the service is reviewing its service delivery model and that the Trust has escalated concerns to the ICB around safely transitioning patients to adult services.
PZ020	Diana, Princess of Wales Hospital, Grimsby	99.6%	Positive Outlier	
PZ049	Warrington Hospital	99.5%	Positive Outlier	
PZ053	Scunthorpe General Hospital	100.0%	Positive Outlier	
PZ058	Newham University Hospital	83.7%	Alarm	We have received acknowledgement from the clinical lead and confirmation that they're developing an action plan. They have informed us that there is no allocated PA for their role as clinical lead of the PDU.
PZ096	Derriford Hospital	84.6%	Alert	
PZ112	Scarborough General Hospital	100.0%	Positive Outlier	
PZ120	Northumbria Healthcare	81.7%	Alarm	We have received acknowledgement from the clinical lead. However, Northumbria Healthcare has been identified as a positive outlier for HbA1c.
PZ157	Royal Free Hospital	82.0%	Alarm	We have received acknowledgement from the clinical lead.
PZ191	Ealing Hospital	99.8%	Positive Outlier	
PZ196	Great Ormond Street Hospital	84.1%	Alert	
PZ219	Sheffield Childrens Hospital	99.6%	Positive Outlier	
PZ220	Bedford Hospital	84.1%	Alarm	We have received acknowledgement from the clinical lead.
PZ246	The Northern Care Alliance NHS Foundation Trust (Rochdale, Bury & Oldham)	84.5%	Alert	