

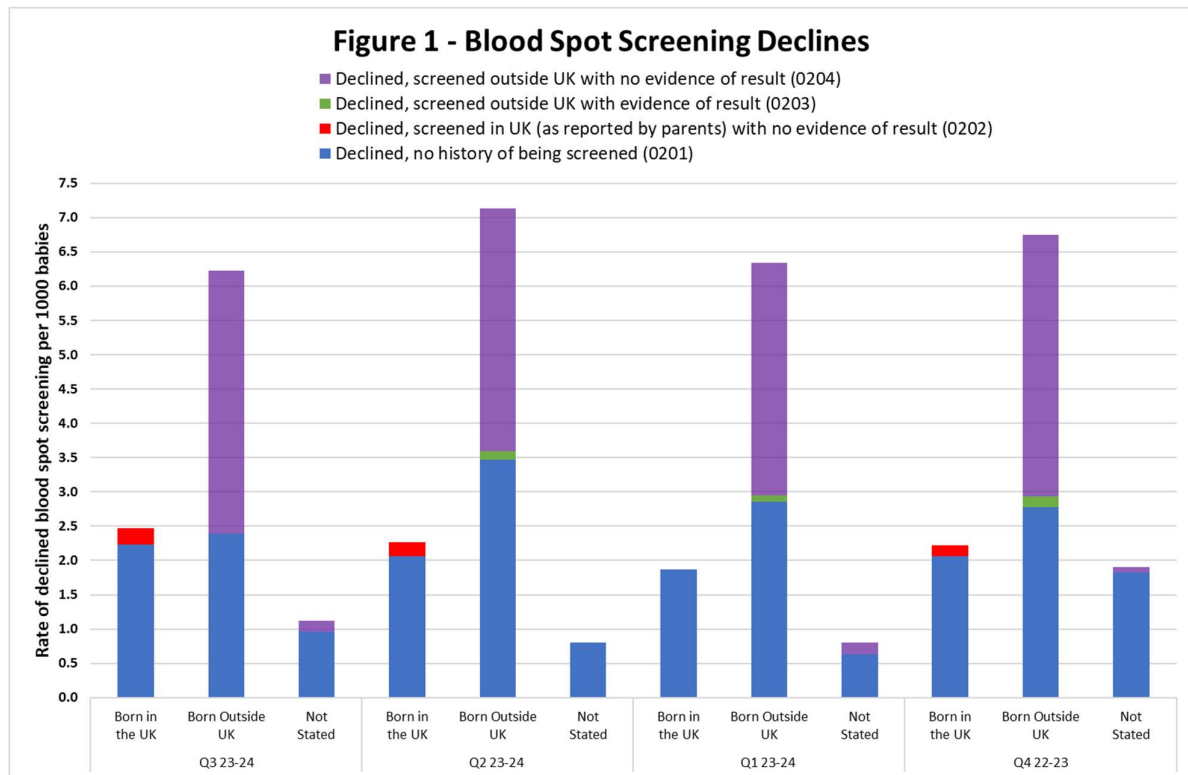
Manchester Newborn Screening Laboratory Quarterly Blood Spot Screening Report: Quarter 3 2023-24

Manchester Newborn Screening Laboratory, which serves babies born in Greater Manchester, Lancashire and South Cumbria, received 13,445 blood spot samples between 1st October and 31st December 2023. This report describes performance against the NHS Newborn Blood Spot Screening Programme Standards. Full details of the standards including definitions and exclusions can be found at <https://www.gov.uk/government/publications/standards-for-nhs-newborn-blood-spot-screening>. The appendix of this document contains the data for standards 3-7 in table form.

The data for the laboratory reportable standards is presented by maternity unit/NHS trust of the sample taker. For accurate figures, please ensure the trust code is written/stamped on the blood spot card.

Declines

In Quarter 3 the laboratory received 123 notifications of declined blood spot screening. Figure 1 shows the trends in declined screens over the past year, by place of birth (born in UK or born outside of UK). The laboratory should be notified of all declines, including those for babies screened elsewhere, rather than directly notifying Child Health.



Key to colour coding

Met achievable threshold
Met acceptable threshold
Within 10% of acceptable threshold
More than 10% below acceptable threshold

Standard 3 – The proportion of blood spot cards received by the laboratory with the baby’s NHS number on a barcoded label

Acceptable: $\geq 90.0\%$ of blood spot cards are received by the laboratory with the baby’s NHS number on a barcoded label.

Achievable: $\geq 95.0\%$ of blood spot cards are received by the laboratory with the baby’s NHS number on a barcoded label.

Figure 2 displays performance against standard 3.

Overall, 80.7% of samples received in quarter 3 of 2023/24 had a barcoded NHS number label, which is lower than the previous quarter (82.6%). Of the 11 maternity units, 1 met the acceptable standard and 2 met the achievable threshold.

Standard 4 - The proportion of first blood spot samples taken on day 5

Acceptable: $\geq 90.0\%$ of first blood spot samples are taken on day 5.

Achievable: $\geq 95.0\%$ of first blood spot samples are taken on day 5.

Figure 3 displays performance against standard 4. Overall, 90.9% of samples received in quarter 3 of 2023/24 were collected on day 5, which is lower than the previous quarter (91.3%). 9 out of the 11 maternity units met standard 4, and 2 of these met the achievable threshold.

Figure 2: Standard 3 - The proportion of blood spot cards received by the laboratory with the baby's NHS number on a barcoded label

Most recent quarter on right-hand side

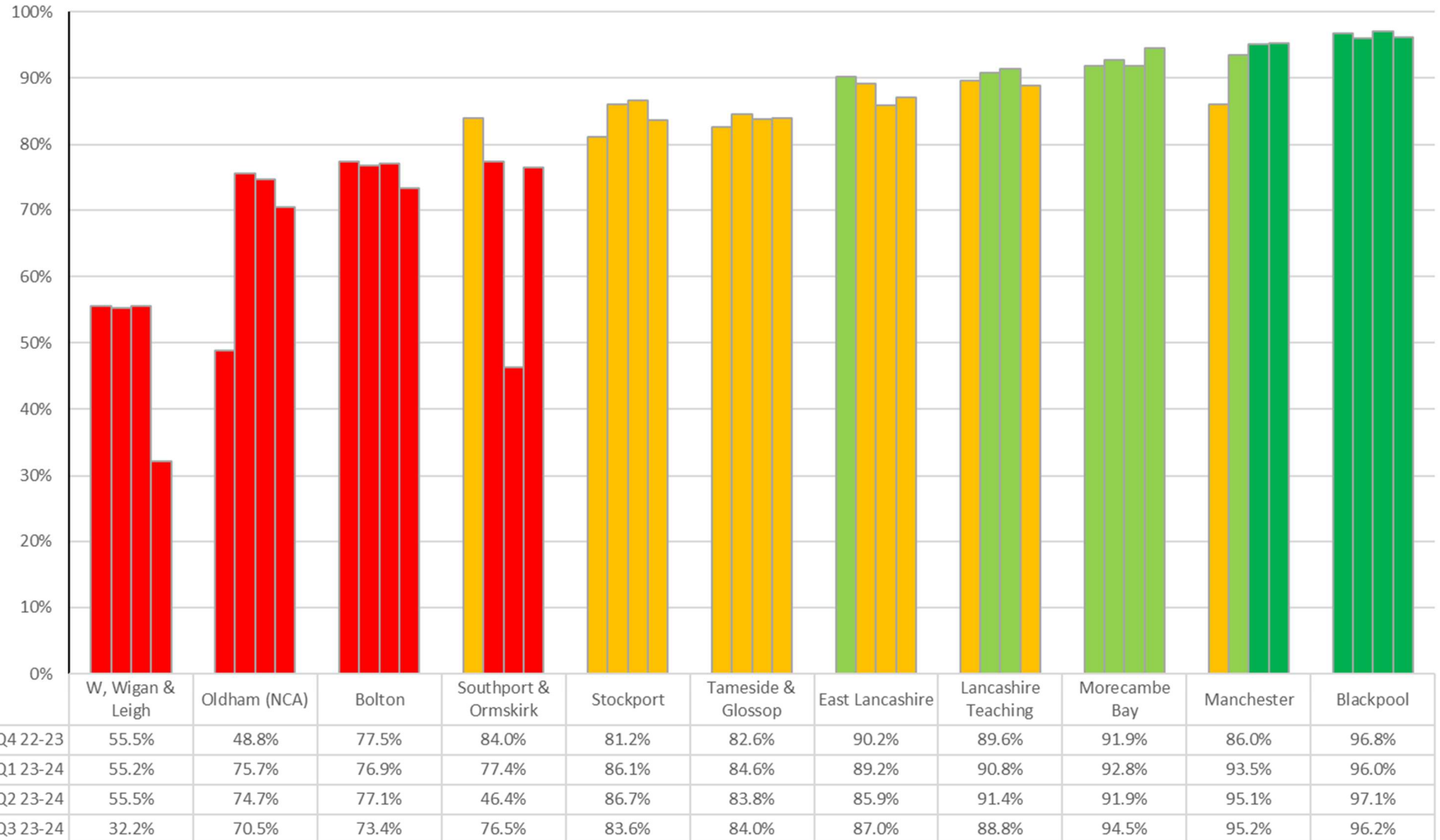


Figure 3: Standard 4 - The proportion of first blood spot samples taken on day 5

Most recent quarter on right-hand side



Standard 5 - The proportion of blood spot samples received less than or equal to 3 working days of sample collection

Acceptable: $\geq 95.0\%$ of all samples received less than or equal to 3 working days of sample collection.

Achievable: $\geq 99.0\%$ of all samples received less than or equal to 3 working days of sample collection.

Figure 4 displays performance against standard 5.

Overall, 97.2% samples were received within 3 working days. 8 Trusts met the standard, with 4 of these reaching the achievable threshold. Performance was similar to the previous quarter (97.5% samples received within 3 working days).

Standard 6 - The proportion of first blood spot samples that require repeating due to an avoidable failure in the sampling process

Acceptable: Avoidable repeat rate is $\leq 2.0\%$

Achievable: Avoidable repeat rate is $\leq 1.0\%$

The avoidable repeat rate for quarter 3 was 2.7%, which is lower compared to quarter 2 (3.1%). The main reason for an avoidable repeat was insufficient blood, followed by incorrect application of blood. The performance for each trust is displayed in figure 5. 5 Trusts met the standard, with 2 achieving the achievable threshold. Figure 6 compares the avoidable repeat rate for samples collected from in-patients with samples collected from babies at home/in the community. The rate was 2.1% for babies at home (2.5% in quarter 2) and 7.3% for samples collected from in-patients (7.6% in quarter 2).

Figure 4: Standard 5 - The proportion of blood spot samples received less than or equal to 3 working days of sample collection

Most recent quarter on right-hand side

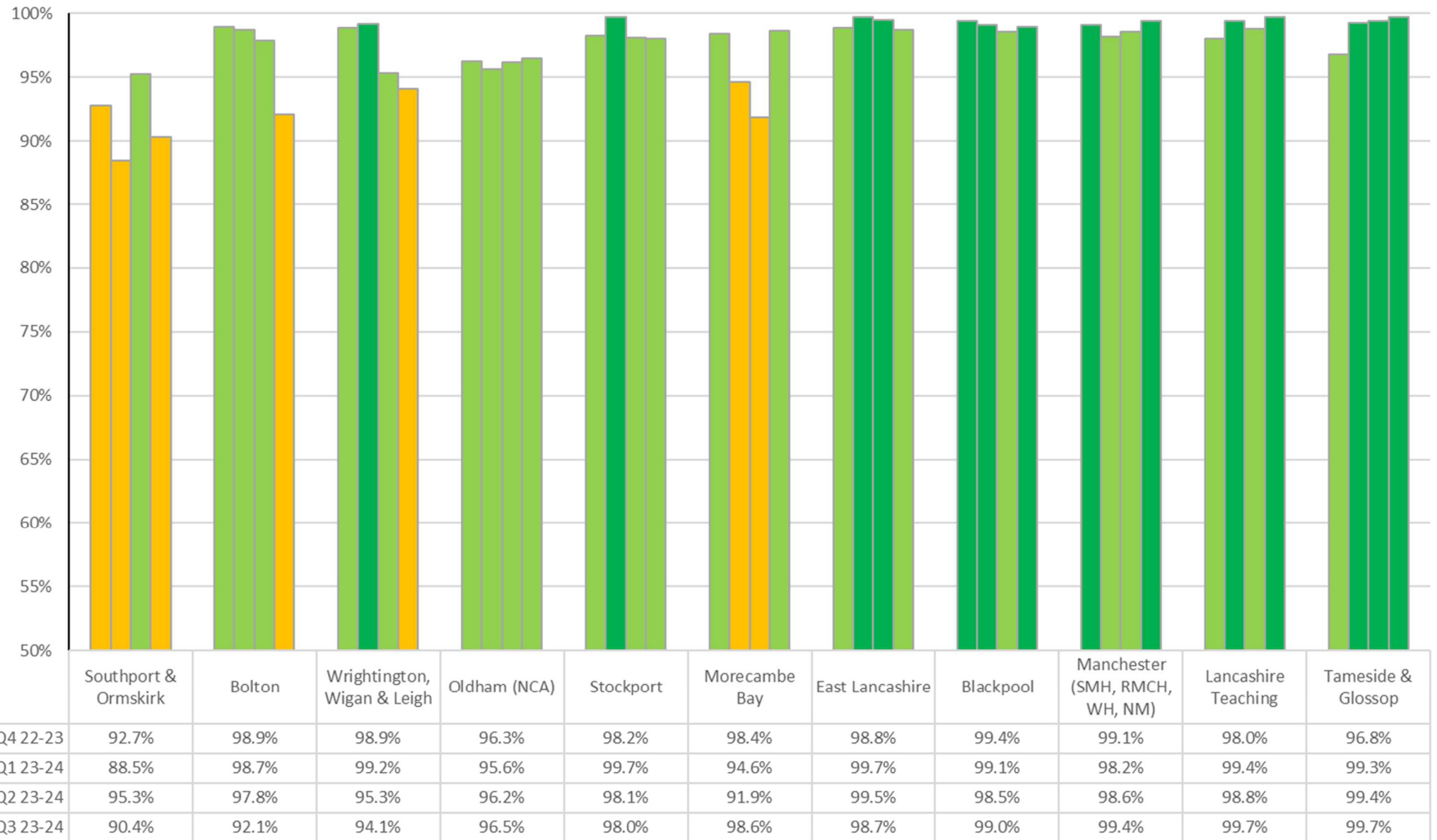


Figure 5: Standard 6 - The proportion of first blood spot samples that require repeating due to an avoidable failure in the sampling process by Trust

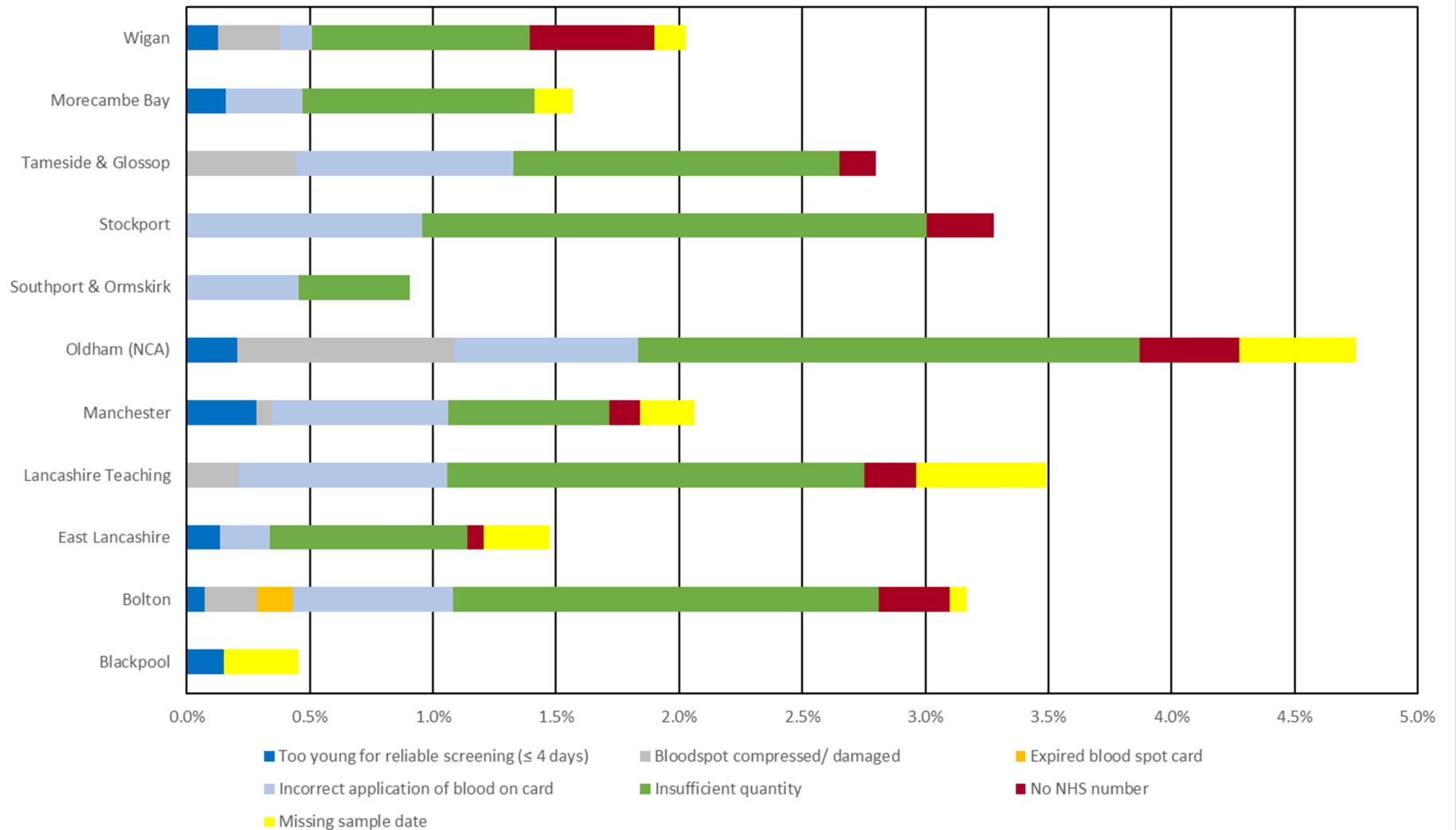
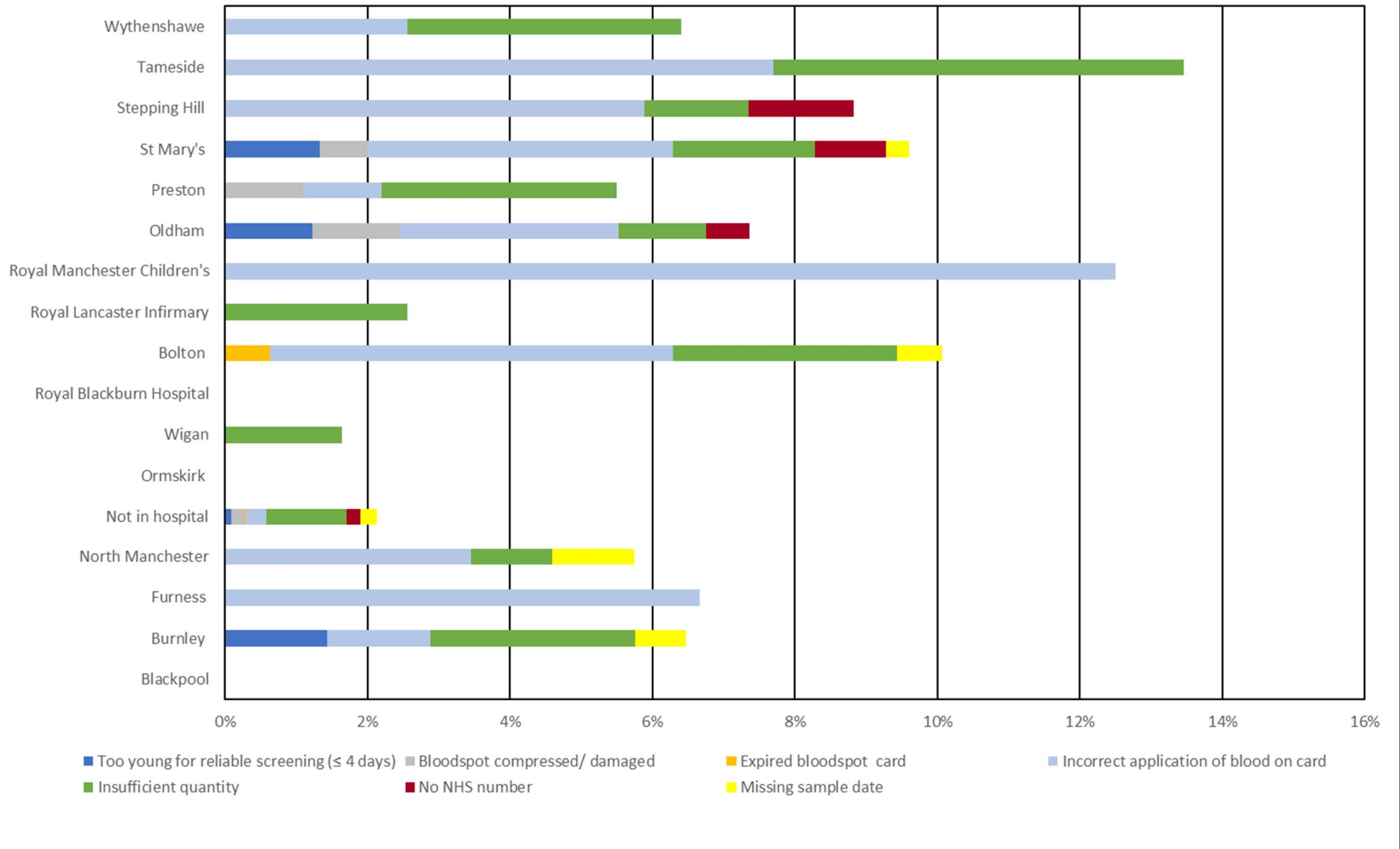


Figure 6: Standard 6 - Avoidable repeats for in-patients vs community



Q3 23-24 Table 1 - Summary of Performance				
Trust	Standard 3	Standard 4	Standard 5	Standard 6
Blackpool Teaching Hospitals NHS FT	96.2%	93.1%	99.0%	0.5%
Bolton NHS FT	73.4%	91.9%	92.1%	3.2%
East Lancashire Hospitals NHS Trust	87.0%	86.6%	98.7%	1.5%
Lancashire Teaching Hospitals NHS FT	88.8%	93.2%	99.7%	3.5%
Manchester University NHS FT - SMH, RMCH, WH & NMGH	95.2%	95.1%	99.4%	2.1%
Oldham (NCA)	70.5%	88.2%	96.5%	4.8%
Southport & Ormskirk Hospital NHS Trust	76.5%	91.4%	90.4%	0.9%
Stockport NHS FT	83.6%	94.7%	98.0%	3.3%
Tameside And Glossop Integrated Care NHS FT	84.0%	94.0%	99.7%	2.8%
University Hospitals of Morecambe Bay NHS FT	94.5%	96.9%	98.6%	1.6%
Wrightington, Wigan and Leigh NHS FT	32.2%	94.3%	94.1%	2.0%

Standard 7a - The proportion of second blood spots for raised IRT taken on day 21 to day 24

Acceptable: ≥ 80% of second blood spot samples taken on day 21 to day 24

Achievable: ≥ 90% of second blood spot samples taken on day 21 to day 24

During quarter 3 there were 5 repeats for raised IRT (CF inconclusive). Of these, 60% were collected on day 21-24. CF inconclusive repeats are performed by Screening Link Health Visitors. The data is presented by Maternity Unit in table 2.

Q3 23-24 Table 2 - Standard 7a						
Maternity Unit	Age at				Total	% collected day 21-24
	18	21	24	28		
Bolton NHS FT		1	1	1	3	67%
East Lancashire Hospitals NHS Trust	1				1	0%
Manchester University NHS FT - SMH, RMCH, WH & NMGH		1			1	100%
Total	1	2	1	1	5	60%

Standard 7b - The proportion of second blood spot samples for borderline TSH taken between 7 and 10 calendar days after the initial borderline sample

Acceptable: ≥ 80.0% of repeat blood spot samples taken as defined

Achievable: ≥ 90.0% of repeat blood spot samples taken as defined

During quarter 3 there were 30 repeats for borderline TSH (CHT). Of these, 73% were collected 7-10 days after the original sample. Table 3 displays the information by Trust.

Q3 Table 3: Standard 7b													
Trust	Number of days between original sample and collection of repeat sample											Total	% collected 7-10 days after original sample
	4	6	7	8	9	10	11	12	13	22			
Bolton NHS FT		1			2	1					1	5	60%
Lancashire Teaching Hospitals NHS FT			1				1		1			3	33%
Manchester University NHS FT - SMH, RMCH, WH & NMGH	2		4	2	1	1		1				11	73%
Oldham (NCA)			1	1		2	1					5	80%
Stockport NHS FT					3	2						5	100%
Tameside And Glossop Integrated Care NHS FT				1								1	100%
Grand Total	2	1	6	4	6	6	2	1	1	1	1	30	73%

Standard 7c - The proportion of CHT pre-term repeats collected on day 28 or at discharge

Acceptable: ≥ 75.0% of repeat blood spot samples taken as defined

Achievable: ≥ 85.0% of repeat blood spot samples taken as defined

During quarter 3, 143 CHT pre-term repeats were received (avoidable repeats and duplicates excluded). Performance by trust is displayed in figure 7. 77% were collected on day 28 or at discharge, 14% were collected after day 28.

Quarter 3 2023-24: Standard 7c					
Trust	Number of Pre-term CHT second samples collected:			Total	% Prem repeats collected on day 28 or at discharge
	EARLY	ON-TIME	LATE		
Blackpool Teaching Hospitals NHS FT	1	5	1	7	71%
Bolton NHS FT	3	16	3	22	73%
East Lancashire Hospitals NHS Trust	2	10	4	16	63%
Lancashire Teaching Hospitals NHS FT	1	13	1	15	87%
Manchester University NHS FT - SMH, RMCH, WH & NMGH	1	30	9	40	75%
Oldham (NCA)	2	20	0	22	91%
Southport & Ormskirk Hospital NHS Trust	0	3	0	3	100%
Stockport NHS FT	0	3	0	3	100%
Tameside And Glossop Integrated Care NHS FT	0	3	2	5	60%
University Hospitals of Morecambe Bay NHS FT	1	7	0	8	88%
Wrightington, Wigan and Leigh NHS FT	2	0	0	2	0%
Grand Total	13	110	20	143	77%

Standard 9 - Timely processing of CHT and IMD (excluding HCU) screen positive samples

Acceptable: 100% of babies with a positive screening result (excluding HCU) have a clinical referral initiated within 3 working days of sample receipt

There were 11 screen positive samples for CHT and 2 for IMD in quarter 3. All were referred within 3 working days of sample receipt.

Standard 11 - Timely entry into clinical care

Data for standard 11 is displayed in table 5.

Table 5: Standard 11						
Condition	Criteria	Thresholds	Number of babies seen by specialist services by condition specific standard	Number of babies referred	Percentage seen by specialist services by condition specific standard	Comments
IMDs (excluding HCU)	Attend first clinical appointment by 14 days of age	Acceptable: 100%	2	2	100%	1 x PKU, 1 x MCAD
CHT (suspected on first sample)	Attend first clinical appointment by 14 days of age	Acceptable: 100%	7	7	100%	
CHT (suspected on repeat following borderline TSH)	Attend first clinical appointment by 21 days of age	Acceptable: 100%	2	4	50%	1 baby seen on day 23 (repeat collected on day 16), 1 baby seen on day 26 (repeat collected on day 19 (over Christmas)).
CF (2 CFTR mutations detected)	Attend first clinical appointment by 28 days of age	Acceptable: ≥ 95.0% Achievable: 100%	1	1	100%	
HCU	Attend first clinical appointment by 28 days of age	Acceptable: ≥ 95.0% Achievable: 100%	-	-	-	
CF (1 or no CFTR mutation detected)	Attend first clinical appointment by 35 days of age	Attend first clinical appointment by 35 days of age	0	1	0%	Baby seen on day 48 (repeat sample lost). Incident 2439293. 1 baby excluded as they died before follow-up.
SCD	Attend first clinical appointment by 90 days of age	Attend first clinical appointment by 90 days of age	2	2	100%	2 babies waiting to be seen but are not yet 90 days of age.

Incidents

Details of incidents at level 3 or above, either detected by the laboratory or occurred at MFT

Incident Number	Incident Date	Incident Severity	Incident Harm	Summary of incident	Further details	MFT or external	Lab/ Ward/ Maternity Unit	Local Area Team	QA informed
2429357	30/09/23	2 - minor	1 - no harm	Blood spot labelling error: another baby's bar-coded demographic sticker, detected prior to reporting		External	Lancashire Teaching Maternity Unit	Lancashire	Yes
2444865	11/10/23	2 - minor	2 - slight	Blood spot collection error: delay/ failure to collect screening sample	Screen terminated (Movement In baby)	External	Bolton Health Visitors	Greater Manchester	Yes
2449959	27/10/23	2 - minor	2 - slight	Blood spot collection error: delay/ failure to collect screening sample	Screen terminated (Movement In baby)	MFT	Bolton Health Visitors	Greater Manchester	Yes
2449997	30/10/23	2 - minor	2 - slight	Blood spot collection error: delay/ failure to collect screening sample	Screen terminated (Movement In baby)	MFT	Bolton Health Visitors	Greater Manchester	Yes
2450383	04/12/23	2 - minor	2 - slight	Blood spot labelling error: handwritten NHS number belonging to another baby (other demographic details correct)		External	Pennine Maternity Unit	Greater Manchester	Yes

Appendix

Quarter 3 2023-24: Standard 3							
Trust	Number of all samples (including repeats)	Number of blood spot cards including baby's NHS number	Number of blood spot cards including ISB label barcoded baby's NHS number	Unreadable Barcodes	Percentage of all blood spot cards including babies' NHS number	Percentage of all blood spot cards including ISB bar-coded babies' NHS number	Percentage of all Unreadable Barcodes
Blackpool Teaching Hospitals NHS FT	678	678	652	10	100.0%	96.2%	1.5%
Bolton NHS FT	1633	1628	1199	64	99.7%	73.4%	3.9%
East Lancashire Hospitals NHS Trust	1589	1588	1383	19	99.9%	87.0%	1.2%
Health Visitor	292	288	5	1	98.6%	1.7%	0.3%
Lancashire Teaching Hospitals NHS FT	993	991	882	14	99.8%	88.8%	1.4%
Manchester University NHS FT - SMH & RMCH & WH & NMGH	3451	3445	3286	41	99.8%	95.2%	1.2%
Not Stated	8	8	5	0	100.0%	62.5%	0.0%
Oldham (NCA)	1628	1622	1147	14	99.6%	70.5%	0.9%
Southport & Ormskirk Hospital NHS Trust	230	230	176	5	100.0%	76.5%	2.2%
Stockport NHS FT	770	768	644	47	99.7%	83.6%	6.1%
Tameside And Glossop Integrated Care NHS FT	707	706	594	38	99.9%	84.0%	5.4%
University Hospitals of Morecambe Bay NHS FT	658	658	622	2	100.0%	94.5%	0.3%
Wrightington, Wigan and Leigh NHS FT	808	804	260	441	99.5%	32.2%	54.6%
Grand Total	13445	13414	10855	696	99.8%	80.7%	5.2%

Quarter 3 2023-24: Standard 4												
Trust	Number of first samples taken on or before day 4	5	6	7	8	9+	4 or earlier	5	6	7	8	9 or later
Blackpool Teaching Hospitals NHS FT	1	617	35	3	0	7	0.2%	93.1%	5.3%	0.5%	0.0%	1.1%
Bolton NHS FT	1	1277	70	17	4	21	0.1%	91.9%	5.0%	1.2%	0.3%	1.5%
East Lancashire Hospitals NHS Trust	1	1288	140	29	5	24	0.1%	86.6%	9.4%	2.0%	0.3%	1.6%
Health Visitor	0	3	0	0	0	213	0.0%	1.4%	0.0%	0.0%	0.0%	98.6%
Lancashire Teaching Hospitals NHS FT	1	877	44	9	2	8	0.1%	93.2%	4.7%	1.0%	0.2%	0.9%
Manchester University NHS FT - SMH, RMCH, WH & NMC	8	3042	98	8	14	28	0.3%	95.1%	3.1%	0.3%	0.4%	0.9%
Not Stated	0	5	0	0	0	0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Oldham (NCA)	3	1296	111	21	6	33	0.2%	88.2%	7.6%	1.4%	0.4%	2.2%
Southport & Ormskirk Hospital NHS Trust	0	202	14	2	1	2	0.0%	91.4%	6.3%	0.9%	0.5%	0.9%
Stockport NHS FT	0	693	28	6	2	3	0.0%	94.7%	3.8%	0.8%	0.3%	0.4%
Tameside And Glossop Integrated Care NHS FT	0	638	29	6	2	4	0.0%	94.0%	4.3%	0.9%	0.3%	0.6%
University Hospitals of Morecambe Bay NHS FT	1	616	16	1	0	2	0.2%	96.9%	2.5%	0.2%	0.0%	0.3%
Wrightington, Wigan and Leigh NHS FT	1	743	29	3	2	10	0.1%	94.3%	3.7%	0.4%	0.3%	1.3%
Grand Total	17	11297	614	105	38	355	0.1%	90.9%	4.9%	0.8%	0.3%	2.9%

Quarter 3 2023-24: Standard 5

Trust	Number of samples received in 3 or fewer working days of sample being taken	Number of samples received in 4 or fewer working days of sample being taken	Number of samples received in 5 or more working days of sample being taken	Total number of samples received	Percentage of samples received by laboratories in 3 or fewer working days of sample being taken	Percentage of samples received by laboratories in 4 or fewer working days of sample being taken	Percentage of samples received by laboratories on or after 5 working days of sample being taken
Blackpool Teaching Hospitals NHS FT	669	673	3	676	99.0%	99.6%	0.44%
Bolton NHS FT	1368	1429	57	1486	92.1%	96.2%	3.84%
East Lancashire Hospitals NHS Trust	1518	1531	7	1538	98.7%	99.5%	0.46%
Health Visitor	195	215	23	238	81.9%	90.3%	9.66%
Lancashire Teaching Hospitals NHS FT	985	987	1	988	99.7%	99.9%	0.10%
Manchester University NHS FT - SMH, RMCH, WH & NMGH	3317	3327	9	3336	99.4%	99.7%	0.27%
Not Stated	2	2	4	6	33.3%	33.3%	66.67%
Oldham (NCA)	1527	1569	14	1583	96.5%	99.1%	0.88%
Southport & Ormskirk Hospital NHS Trust	206	210	18	228	90.4%	92.1%	7.89%
Stockport NHS FT	752	763	4	767	98.0%	99.5%	0.52%
Tameside And Glossop Integrated Care NHS FT	704	704	2	706	99.7%	99.7%	0.28%
University Hospitals of Morecambe Bay NHS FT	648	656	1	657	98.6%	99.8%	0.15%
Wrightington, Wigan and Leigh NHS FT	759	799	8	807	94.1%	99.0%	0.99%
Grand Total	12650	12865	151	13016	97.2%	98.8%	1.16%

Quarter 3 2023-24: Standard 6 by Trust														
Status code and description of avoidable repeat	Blackpool Teaching Hospitals NHS FT	Bolton NHS FT	East Lancashire Hospitals NHS Trust	Health Visitor	Lancashire Teaching Hospitals NHS FT	Manchester University NHS FT - SMH & RMCH & WH & NMGH	Not Stated	Oldham (NCA)	Southport & Ormskirk Hospital NHS Trust	Stockport NHS FT	Tameside And Glossop Integrated Care NHS FT	University Hospitals of Morecambe Bay NHS FT	Wrightington, Wigan and Leigh NHS FT	Grand Total
0301: too young for reliable screening (≤ 4 days)	1	1	2	0	0	9	0	3	0	0	0	1	1	18
0302: too soon after transfusion (<72 hours)	1	4	7	0	0	6	0	2	0	0	0	0	0	20
0303: insufficient sample	0	24	12	14	16	21	0	30	1	15	9	6	7	155
0304: unsuitable sample (blood quality): incorrect blood application	0	9	3	6	8	23	0	11	1	7	6	2	1	77
0305: unsuitable sample (blood quality): compressed/damaged	0	3	0	1	2	2	0	13	0	0	3	0	2	26
0306: Unsuitable sample: day 0 and day 5 on same card	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0307: unsuitable sample for CF: possible faecal contamination	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0308: unsuitable sample: NHS number missing/not accurately recorded	0	4	1	2	2	4	0	6	0	2	1	0	4	26
0309: unsuitable sample: date of sample missing/not accurately recorded	2	1	4	1	5	7	0	7	0	0	0	1	1	29
0310: unsuitable sample: date of birth not accurately matched	0	0	0	0	0	1	0	0	0	0	0	0	0	1
0311: unsuitable sample: expired card used	0	2	0	0	0	0	0	0	0	0	0	0	0	2
0312: unsuitable sample: >14 days in transit, too old for analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0313: unsuitable sample: damaged in transit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Avoidable Repeat Requests	3	44	22	24	33	67	0	70	2	24	19	10	16	334
Number of first samples received/ babies tested	662	1388	1491	177	945	3202	5	1473	221	732	679	637	789	12401
Avoidable Repeat Requests Rate	0.5%	3.2%	1.5%	13.6%	3.5%	2.1%	0.0%	4.8%	0.9%	3.3%	2.8%	1.6%	2.0%	2.7%

Transfusion Repeats are not included in the Avoidable Repeat calculation

Quarter 3 2023-24: Standard 6 by Current Hospital

Status code and description of avoidable repeat	Blackpool Victoria Hospital	Burnley General Hospital	Furness General Hospital	North Manchester General Hospital	Not in hospital	Ormskirk & District General	Royal Albert Edward Infirmary	Royal Blackburn Hospital	Royal Bolton Hospital	Royal Lancaster Infirmary	Royal Manchester Childrens Hospital	Royal Oldham Hospital	Royal Preston Hospital	St Mary's Hospital	Stepping Hill Hospital	Tameside General Hospital	Wythenshawe Hospital	Grand Total
0301: too young for reliable screening (≤ 4 days)	0	2	0	0	10	0	0	0	0	0	0	2	0	4	0	0	0	18
0302: too soon after transfusion (<72 hours)	1	7	0	1	0	0	0	0	4	0	0	2	0	5	0	0	0	20
0303: insufficient sample	0	4	0	1	125	0	1	0	5	1	0	2	3	6	1	3	3	155
0304: unsuitable sample (blood quality): incorrect blood application	0	2	1	3	32	0	0	0	9	0	1	5	1	13	4	4	2	77
0305: unsuitable sample (blood quality): compressed/damaged	0	0	0	0	21	0	0	0	0	0	0	2	1	2	0	0	0	26
0306: Unsuitable sample: day 0 and day 5 on same card	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0307: unsuitable sample for CF: possible faecal contamination	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0308: unsuitable sample: NHS number missing/not accurately recorded	0	0	0	0	21	0	0	0	0	0	0	1	0	3	1	0	0	26
0309: unsuitable sample: date of sample missing/not accurately recorded	0	1	0	1	25	0	0	0	1	0	0	0	0	1	0	0	0	29
0310: unsuitable sample: date of birth not accurately matched	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
0311: unsuitable sample: expired card used	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2
0312: unsuitable sample: >14 days in transit, too old for analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0313: unsuitable sample: damaged in transit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Avoidable Repeat Requests	0	9	1	5	235	0	1	0	16	1	1	12	5	30	6	7	5	334
Number of first samples received/ babies tested	67	139	15	87	11048	24	61	0	159	39	8	163	91	302	68	52	78	12401
Avoidable Repeat Requests Rate	0.0%	6.5%	6.7%	5.7%	2.1%	0.0%	1.6%	0.0%	10.1%	2.6%	12.5%	7.4%	5.5%	9.9%	8.8%	13.5%	6.4%	2.7%

Transfusion Repeats are not included in the Avoidable Repeat calculation