

1 Introduction

SPAN is one of five national diagnostic networks, commissioned by NHS Scotland to improve pathology services through:

- Steering modernisation, including service change and redesign;
- Improving quality;
- Ensuring provision of an effective pathology service, which anticipates and responds to user needs, future requirements, and national guidelines; and meets United Kingdom Accreditation/ISO 15189 Standards (previously Clinical Pathology Accreditation Standards).

In order to do this effectively, SPAN needs access to data on workload and service performance across Scotland, enabling benchmarking and the identification of variation. SPAN therefore works with labs each year to collect and analyse data, providing this back to the service as an enabler for change, innovation and improvement.

This report provides an insight into the performance of individual pathology departments, set in the context of the performance of other NHS Boards. Some data are also displayed against the Royal College of Pathology turnaround times.

If you would like further support to analyse your data or to use your data to drive forward quality in your NHS Board, please contact NSS.imsrequests@nhs.scot.

There are some instances where data in 2021-22 is not comparable to previous years, the most significant is:

-NHS Tayside were unable to submit medical staff data this year. For reference, last year the medical staff headcount for Tayside was 15.

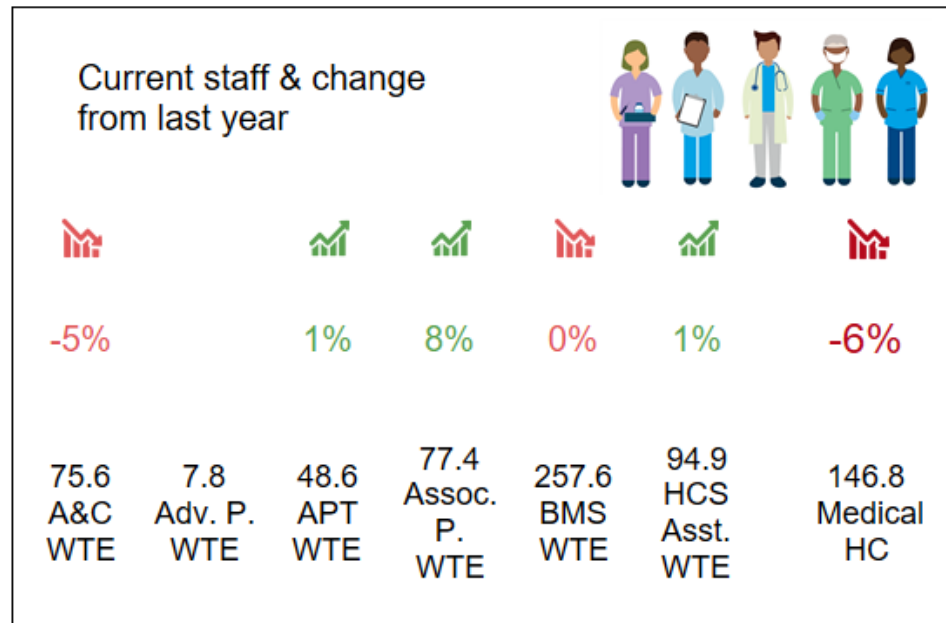
Version	Date	Changes
0.1	10/10/22	Initial Draft for steering group consideration.
0.2	23/11/22	Added Lung and Duodenal Biopsy visualisations. Workforce changes according to data resubmitted, mainly in relation to Advanced Practitioners. Additional commentary on data provided in Introduction.
1.0	18/01/22	Approved Version.

2 NHS Scotland Dashboard


This dashboard shows the changes in key metrics from the last financial year.

Workload

Total Histopathology Requests		298K 37.5%
Total Specimens		474K 39.2%
Total Non Cervical Requests		23K 17.2%
Total Blocks		1,014K 28.3%
Total HE Slides		1,310K 26.6%
Total IHC Slides		417K 19.7%



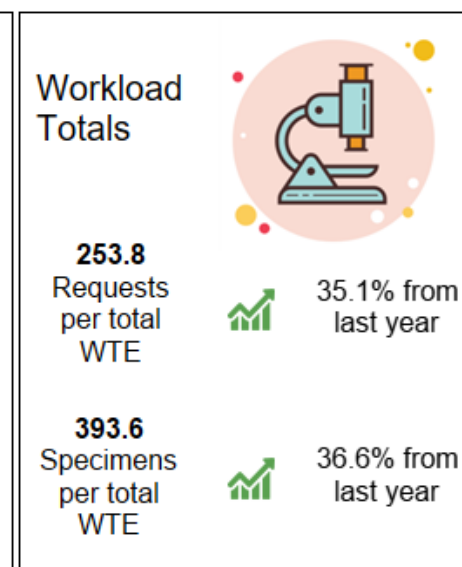
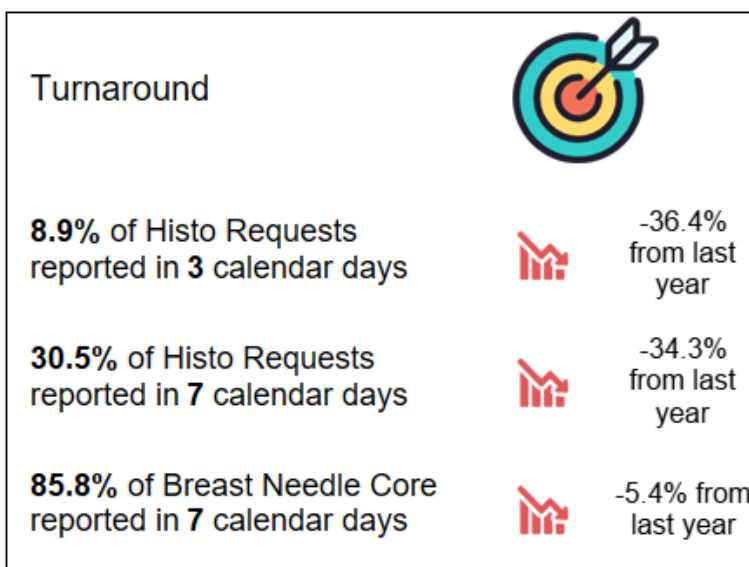
Costs



Consumables + Staffing = Total
Per Request

$$\begin{array}{r} \pounds 27.29 \\ + \pounds 115.93 \\ \hline = \pounds 143.22 \\ -\pounds 17.53 \text{ from last year} \end{array}$$

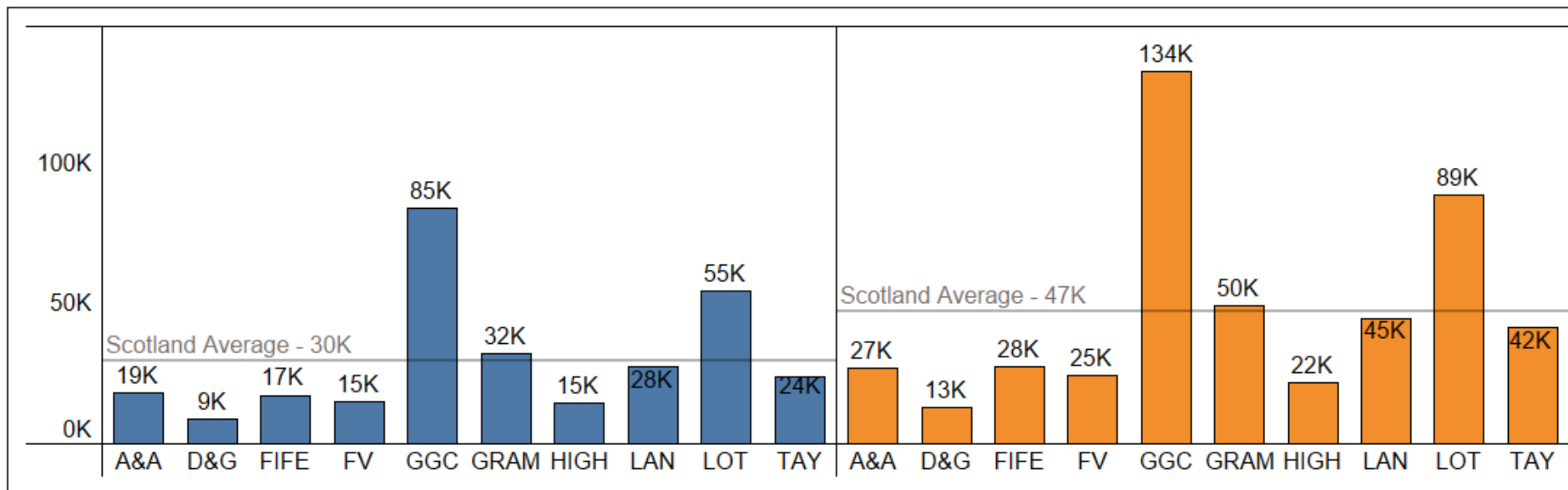
Per Specimen

$$\begin{array}{r} \pounds 17.60 \\ + \pounds 74.76 \\ \hline = \pounds 92.36 \\ -\pounds 11.59 \text{ from last year} \end{array}$$


3 Histopathology: 3.1 Requests, Specimens, Blocks and Slides

Table 1: Histopathology Total Requests & Total Specimens Volume

■ Total Requests ■ Total Specimens



- NHS Scotland received **298,236** Total Histopathology Requests in **21/22**.



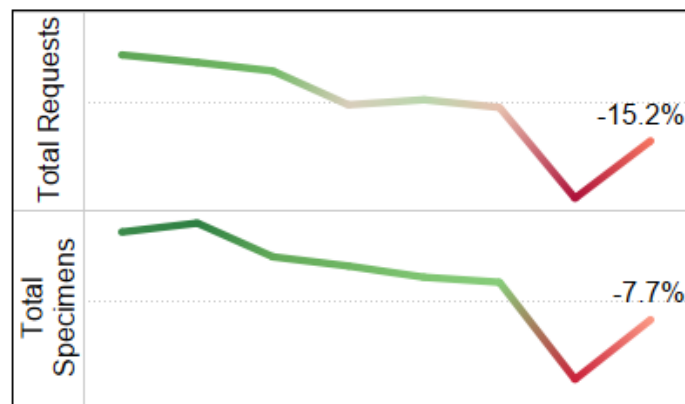
This is **UP 37.5%** from last year.

- NHS Scotland received **474,011** Total Specimens in **21/22**.

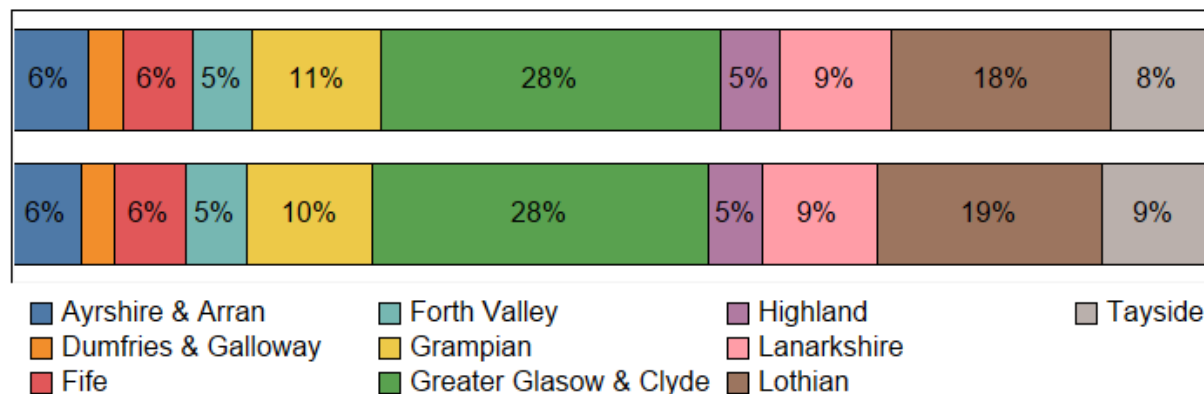


This is **UP 39.2%** from last year.

10 year change %

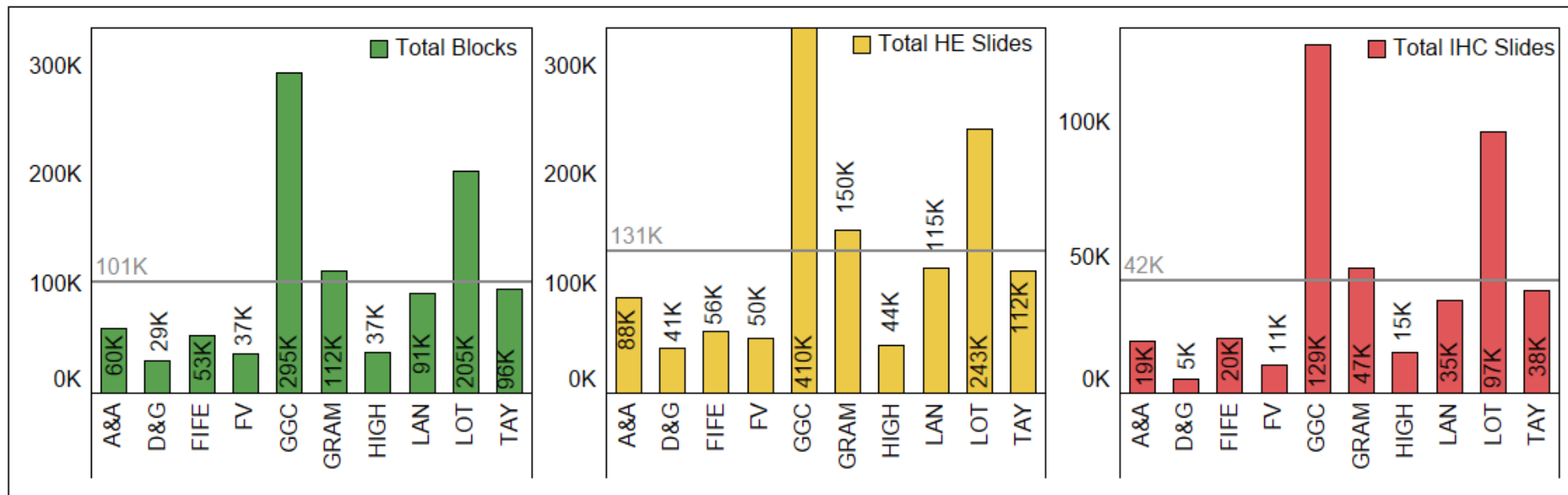


% of Scotland Total



3 Histopathology: 3.1 Requests, Specimens, Blocks and Slides

Table 2: Histopathology Workloads for total Blocks, H&E Slides and IHC Slides



- NHS Scotland received **1,013,773** Total Blocks in **21/22**.



This is **UP 28.3%** from last year.

- NHS Scotland received **1,309,797** Total HE Slides in **21/22**.



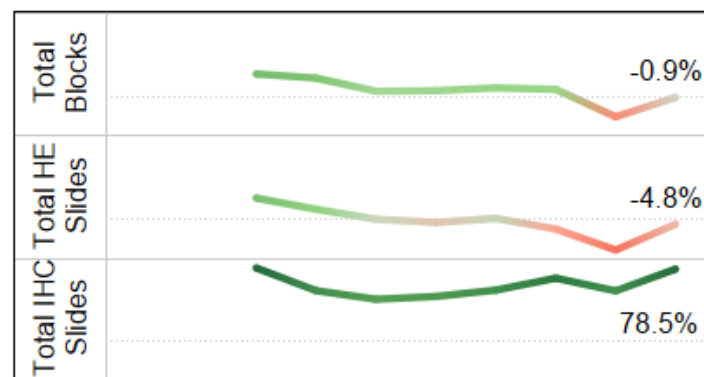
This is **UP 26.6%** from last year.

- NHS Scotland received **416,637** Total IHC Slides in **21/22**.



This is **UP 19.7%** from last year.

10 year change %



% by Board of Scotland Total

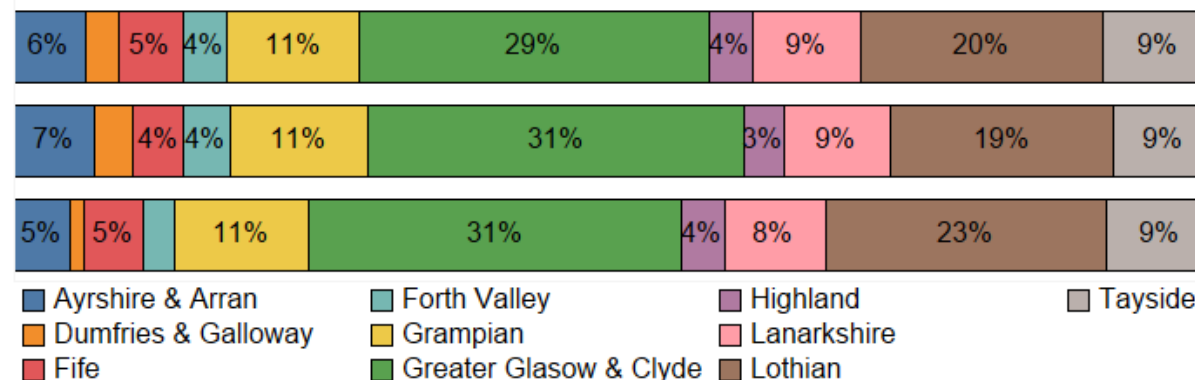
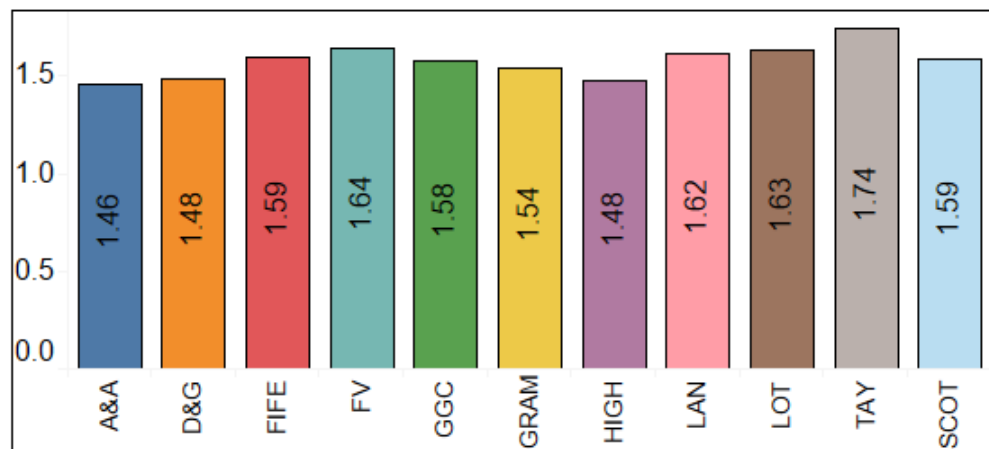


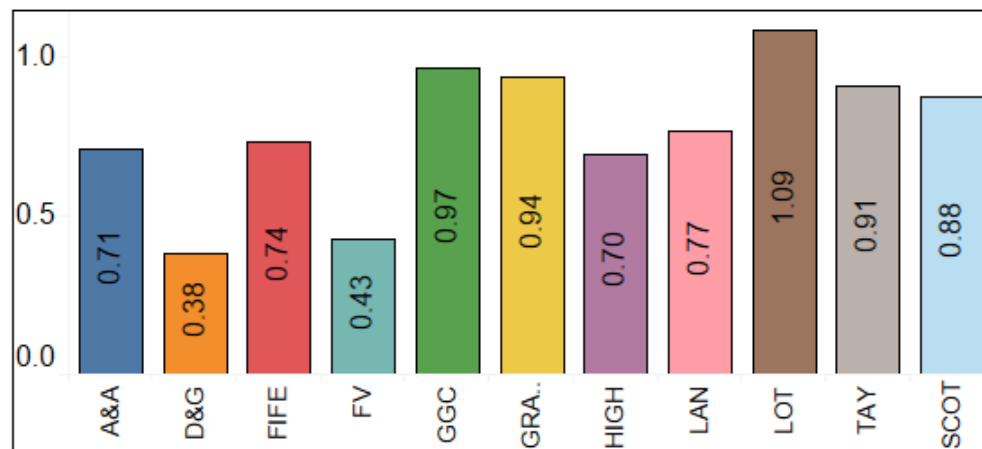
Table 3: Ratio of Total Specimens : Total Requests



The **Specimens:Requests** ratio for Scotland in **21/22** of **1.59** is **UP** 1.2% from last year.



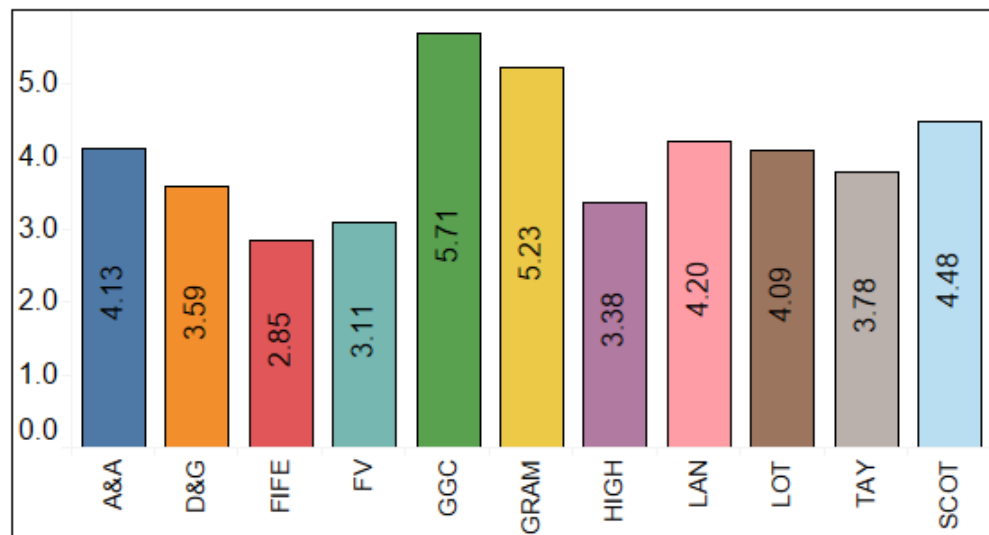
Table 5: Ratio of Total ICC Slides : Total Requests



The **ICCSlides:Specimens** ratio for Scotland in **21/22** of **0.88** is **DOWN** -14.0% from last year.



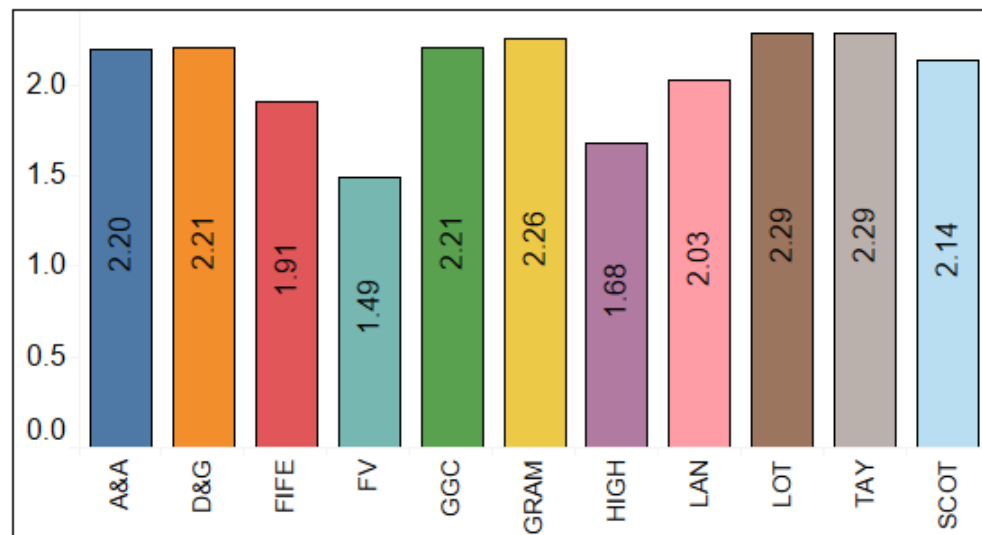
Table 4: Ratio of Total Slides : Total Specimens



The **Slides:Specimens** ratio for Scotland in **21/22** of **4.48** is **DOWN** -10.8% from last year.



Table 6: Ratio of Total Blocks : Total Specimens

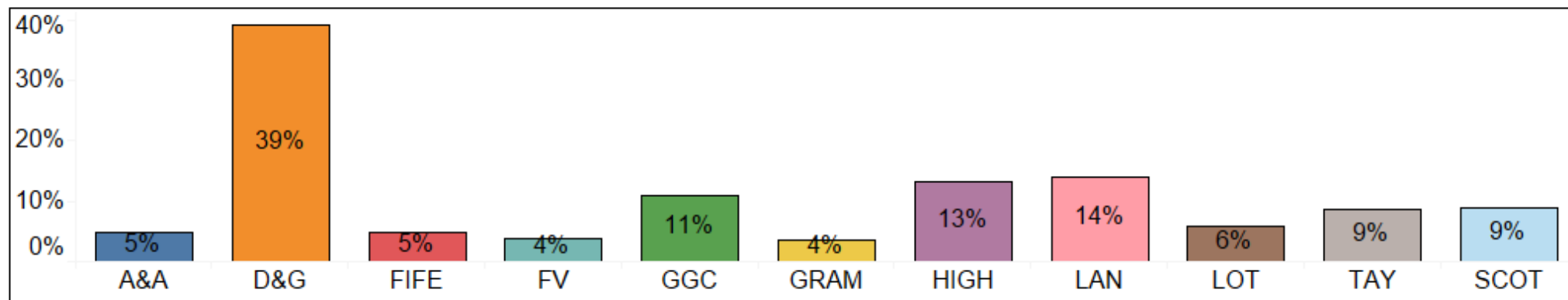


The **Blocks:Specimens** ratio for Scotland in **21/22** of **2.14** is **DOWN** -7.8% from last year.



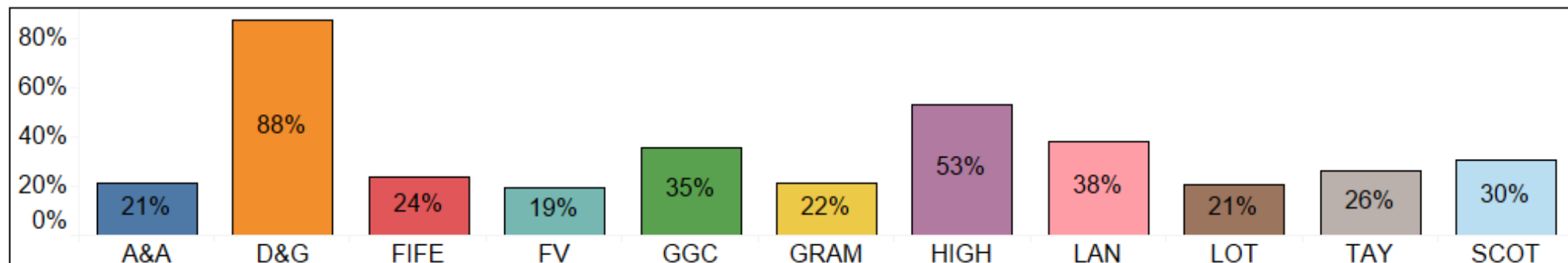
3.2 Histopathology Turnaround Times

Table 7: Standard Histopathology Requests Reported in 3 Calendar Days



The % Turnaround against target for Scotland is **DOWN** -36.4% from last year.

Table 8: Standard Histopathology Requests Reported in 7 Calendar Days

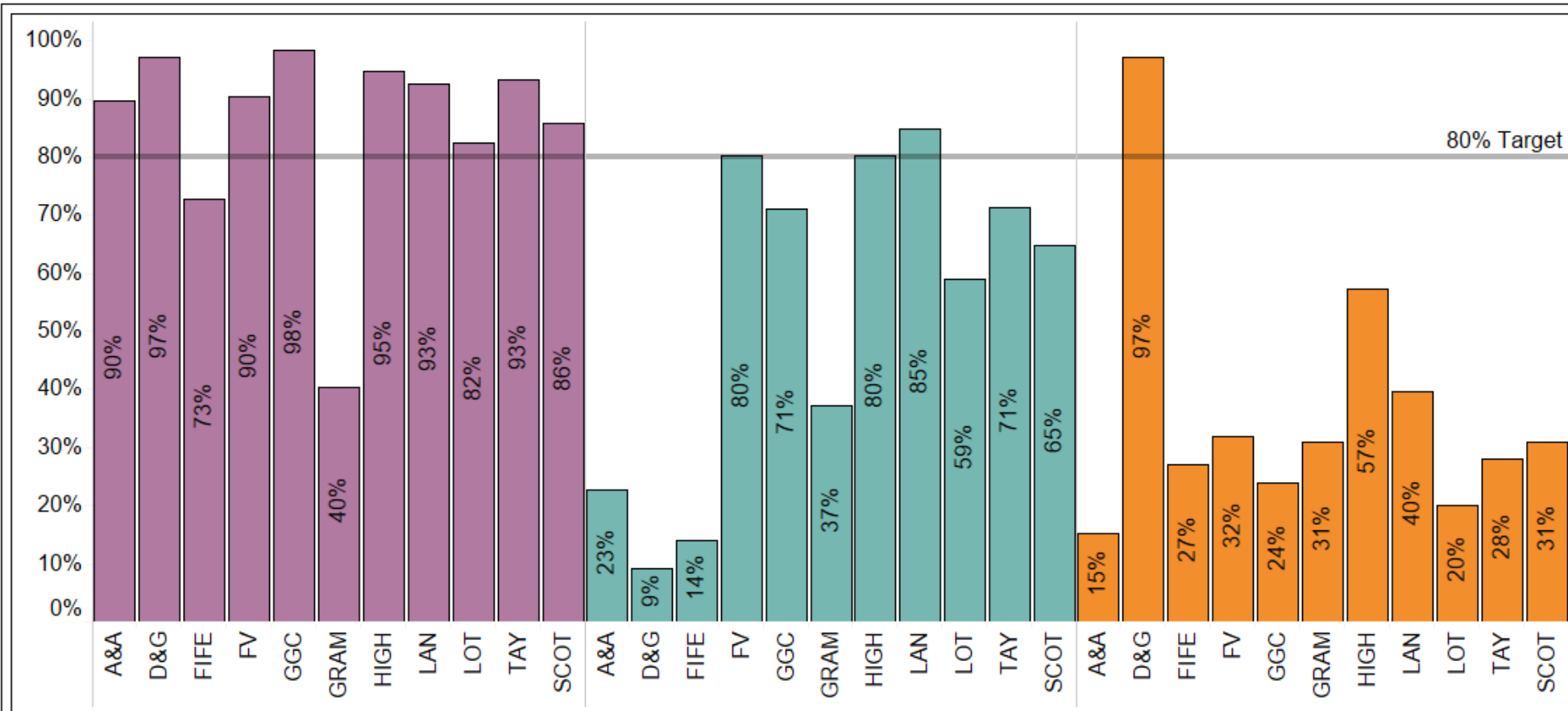


The % Turnaround against target for Scotland is **DOWN** -34.3% from last year.



Table 9: Percentage of Breast Needle Core, Prostate Needle Core and Colorectal Endoscopy biopsies reported within 7 calendar days

Table 9 displays a combined graph of NHS Scotland's Health Boards % turnaround for the excisions and resections, in line with the Scottish weighted average and the 80% RCPATH KPI.



- **85.79%** of NHS Scotland's **Breast Needle Core biopsies** were reported in 7 Calendar Days in **21/22**

This is **DOWN -5.4%** from last year

- **64.86%** of NHS Scotland's **Prostate Needle Core biopsies** were reported in 7 Calendar Days in **21/22**

This is **DOWN 4.9%** from last year

- **30.99%** of NHS Scotland's **Colorectal Endoscopy biopsies** were reported in 7 Calendar Days in **21/22**

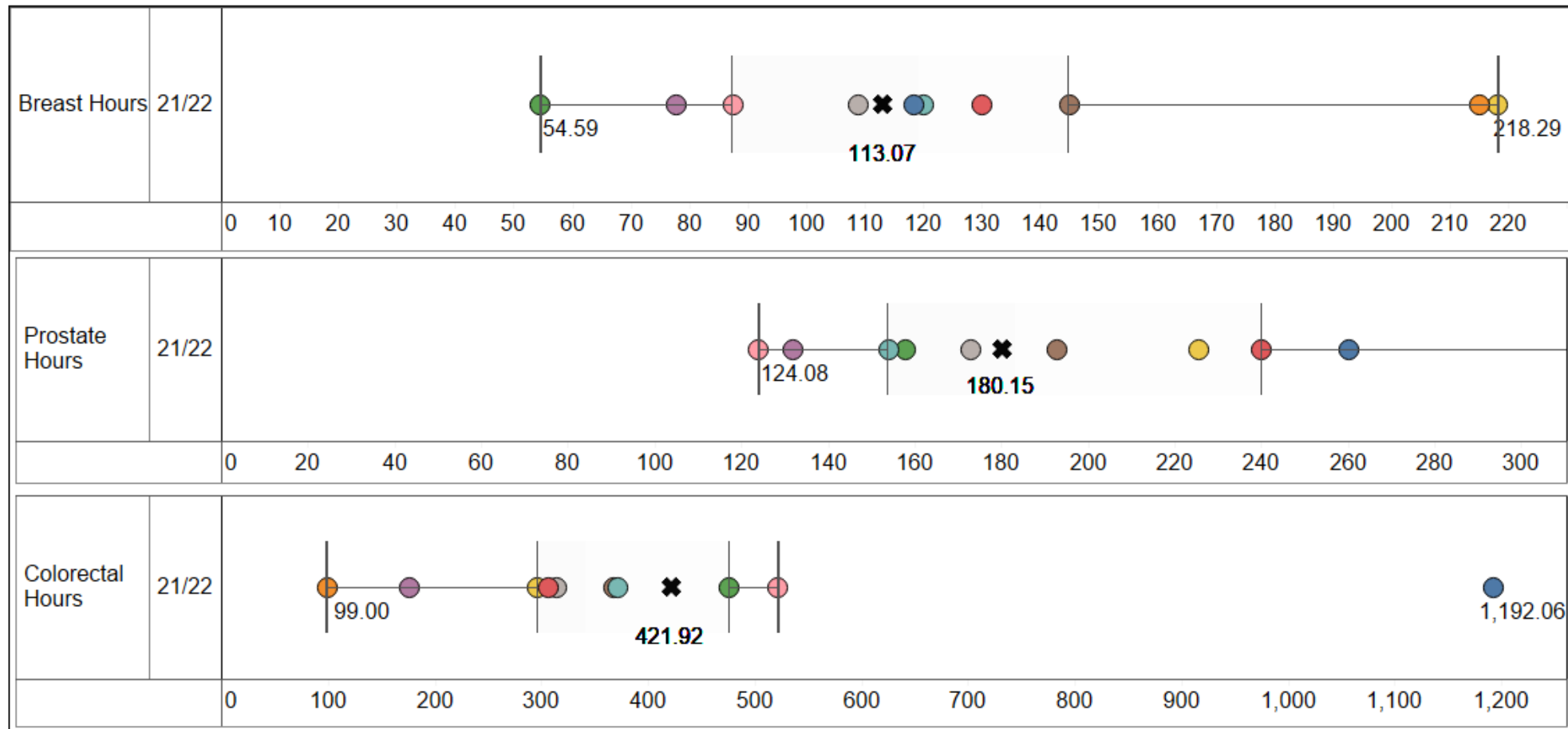
This is **DOWN -45.6%** from last year

Breast Turnaround

Prostate Turnaround

Colorectal Turnaround

Table 10: Turnaround times (in hours) for Breast Needle Core, Prostate Needle Core and Colorectal Endoscopy Biopsies.






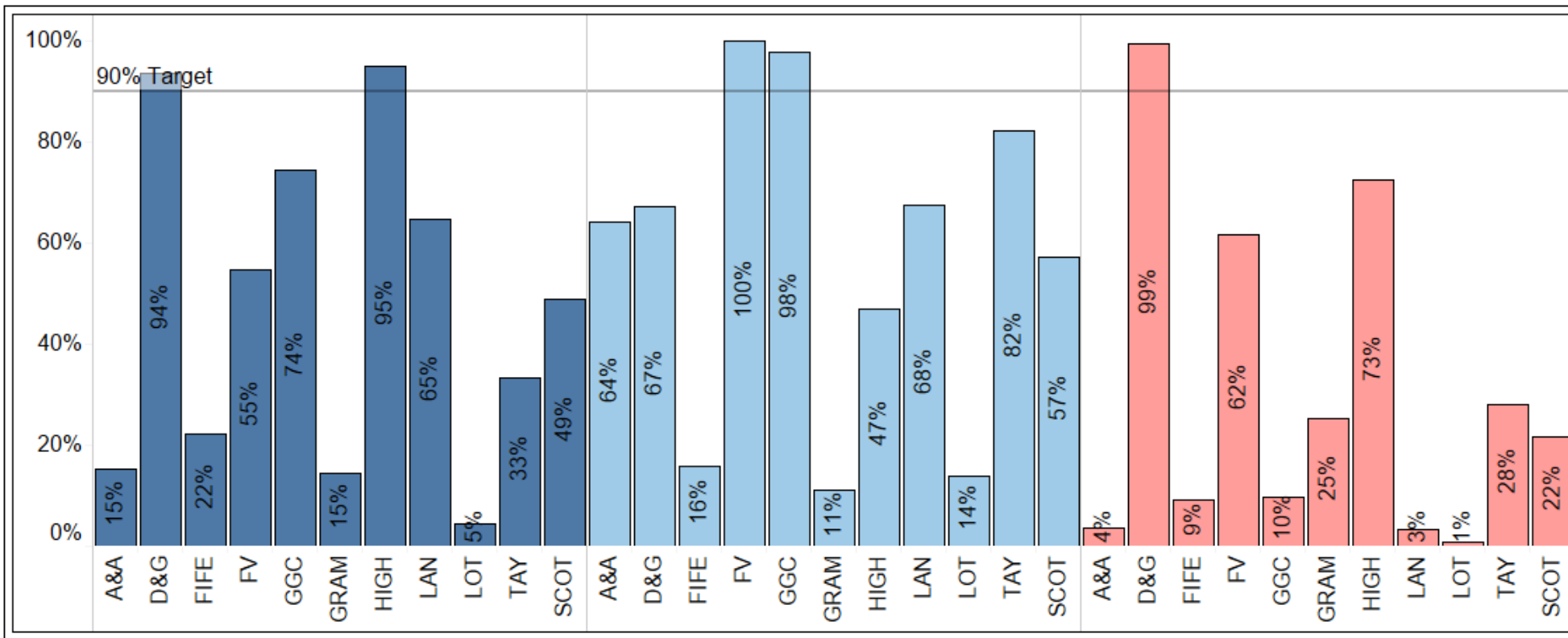
- NHS Scotland's **breast needle core** turnaround time in mean calendar hours for 21/22 is **113.07**.  This is UP 6.6% from last year
- NHS Scotland's **prostate needle core** turnaround time in mean calendar hours for 21/22 is **180.15**.  This is UP 7.9% from last year
- NHS Scotland's **colorectal endoscopy biopsies** turnaround time in mean calendar hours for 21/22 is **421.92**.  This is UP 96.5% from last year



Table 11: Percentage of Rectal Anterior Resections, Breast Wide Local Excisions (WLE) and Gallbladder Resections reported within 10 calendar days.

Table 11 displays a combined graph of NHS Scotland's Health Boards % turnaround for the excisions and resections, in line with the Scottish weighted average and the 90% RCPATH KPI.



- **48.85%** of NHS Scotland's **Rectal Anterior Resections** were reported in 10 Calendar Days in 21/22



This is DOWN 6.2% from last year

- **57.28%** of NHS Scotland's **Breast Wide Local Excisions** were reported in 10 Calendar Days in 21/22



This is DOWN -9.0% from last year

- **21.59%** of NHS Scotland's **Gallbladder Resections** were reported in 10 Calendar Days in 21/22



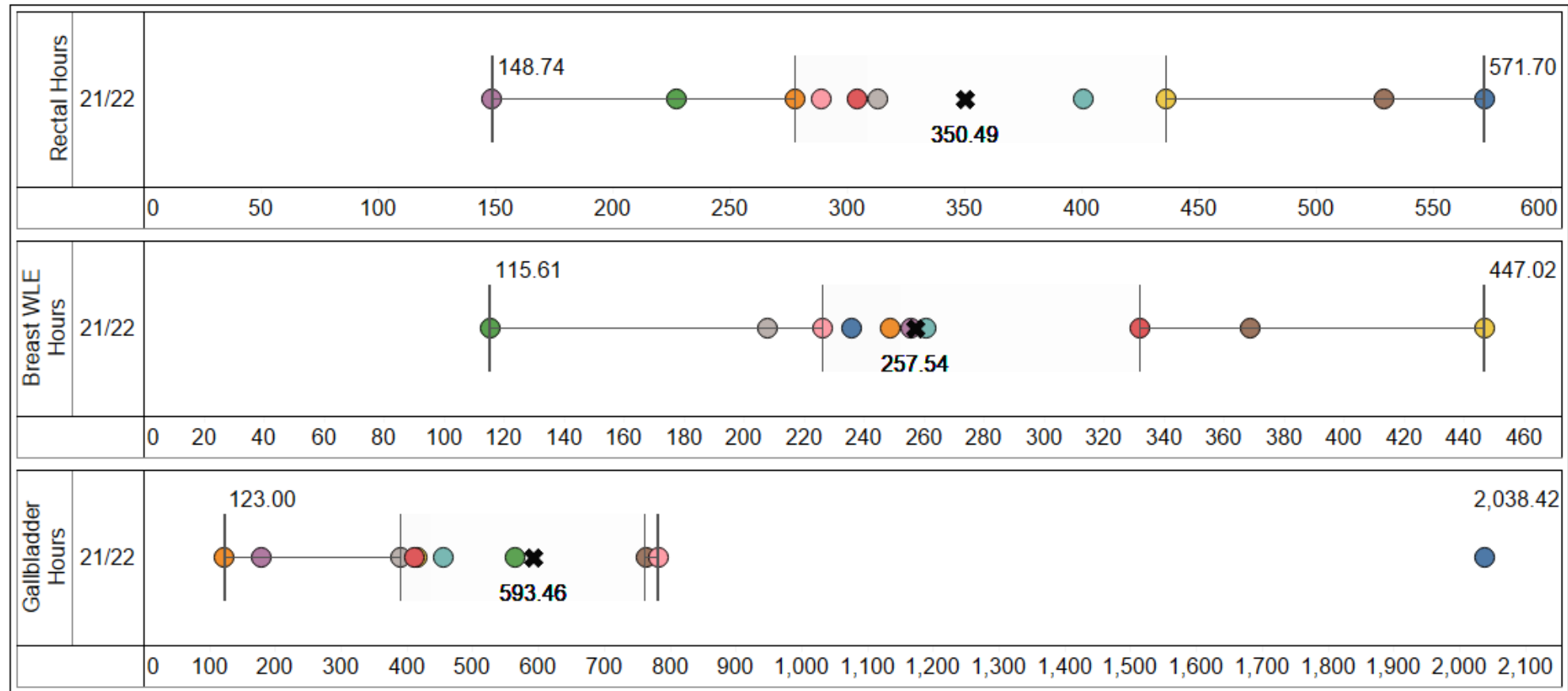
This is DOWN -46.0% from last year

■ Rectal Turnaround

■ Breast Wide Turnaround

■ Gallbladder Turnaround

Table 12a: Turnaround times (in hours) for Rectal Anterior Resections, Breast Wide Local Excisions (WLE) and Gallbladder Resections.






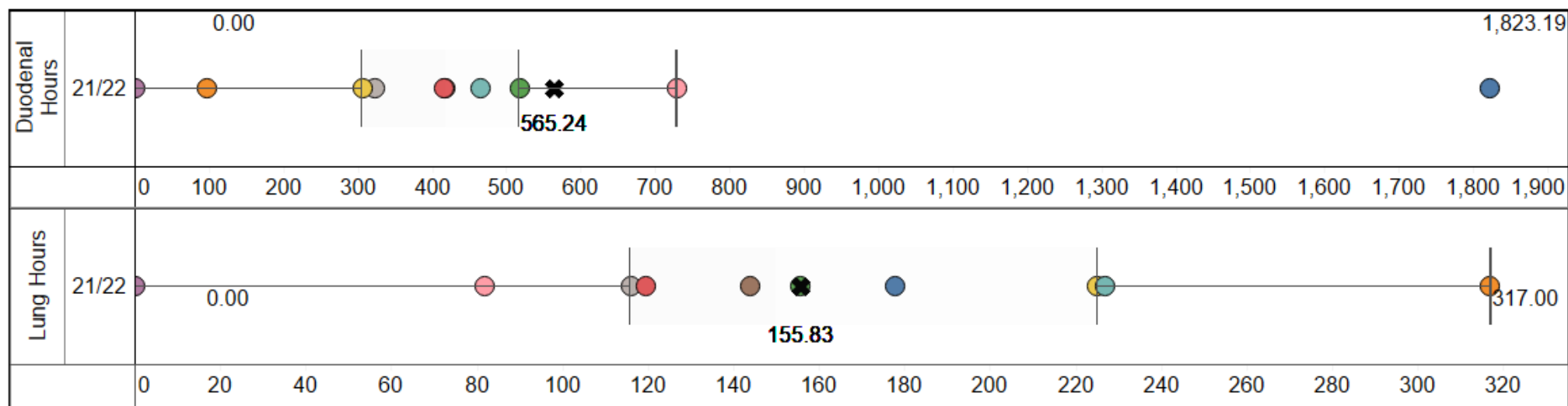
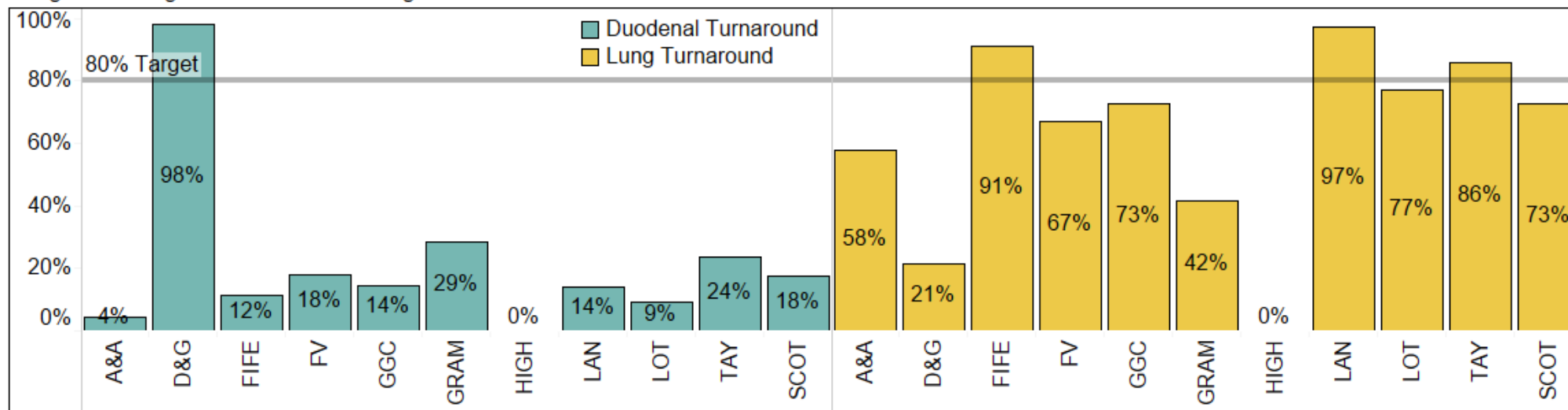
- NHS Scotland's **rectal anterior resections** turnaround time in mean calendar hours for 21/22 is **350.49**.  This is UP 19.2% from last year
- NHS Scotland's **breast wide local excisions** turnaround time in mean calendar hours for 21/22 is **257.54**.  This is UP 11.1% from last year
- NHS Scotland's **gallbladder** turnaround time in mean calendar hours for 21/22 is **593.46**.  This is UP 64.4% from last year



Table 12b: Percentage of Lung and Duodenal Biopsies reported within 7 calendar days

Table 12b displays a combined graph of NHS Scotland's Health Boards % turnaround in 7 days for Lung and Duodenal Biopsies, in line with the Scottish weighted average and RCPATH 80% Target.

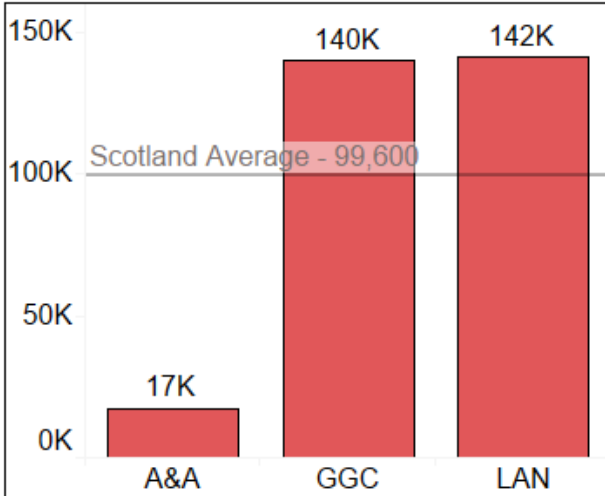


17.56% of NHS Scotland's **Duodenal Biopsies** were reported in 7 Calendar Days in **21/22**

72.94% of NHS Scotland's **Lung Biopsies** were reported in 7 Calendar Days in **21/22**

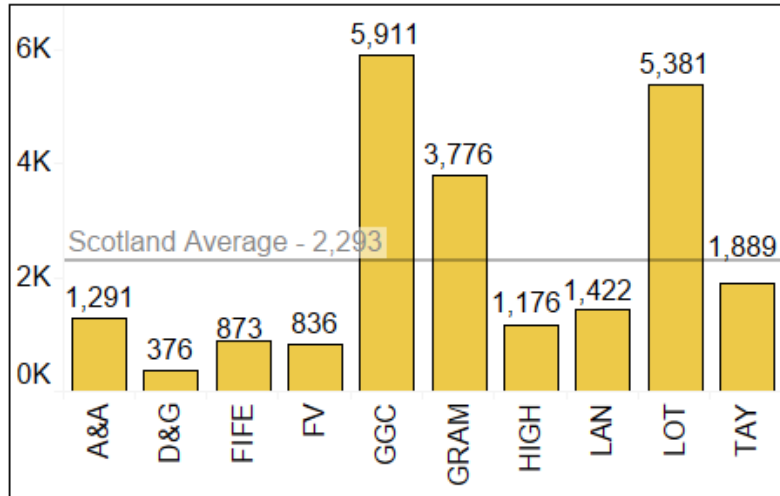
4 Cytopathology - 4.1 Cytopathology Workloads

Table 13: Cytopathology - Total Cervical Cythopathology Requests Volume



■ Cervical Requests (HPV)

Table 14: Cytopathology - Total Non-Cervical Cythopathology Requests Volume



■ Non Cervical Requests

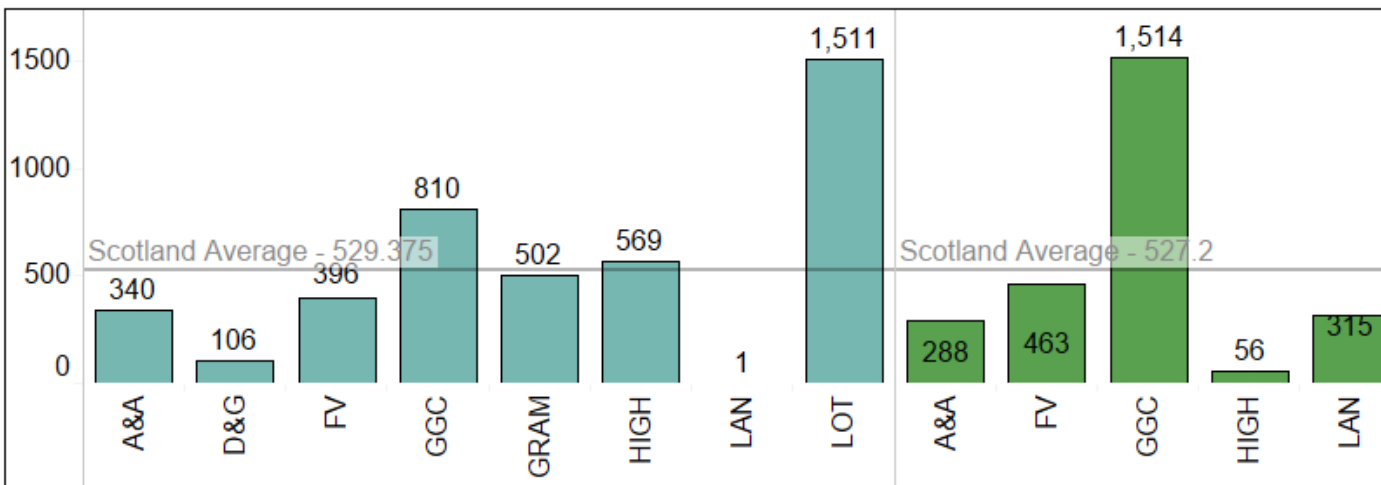


Cervical Requests (HPV) are **UP 60.5%** from last year.



Non Cervical Requests are **UP 17.2%** from last year.

Table 15: Cytopathology - Andrology Requests Volume



■ Post Vasectomy Requests

■ Infertility Requests



Post Vasectomy Requests are **UP 44.4%** from last year.



Infertility Requests are **UP 72.0%** from last year.

4.2 Cytopathology Turnaround Times (% change from last year)

Table 16: Cytopathology – Non-Cervical/Diagnostic Cytopathology Requests Completed in 3 Calendar Days

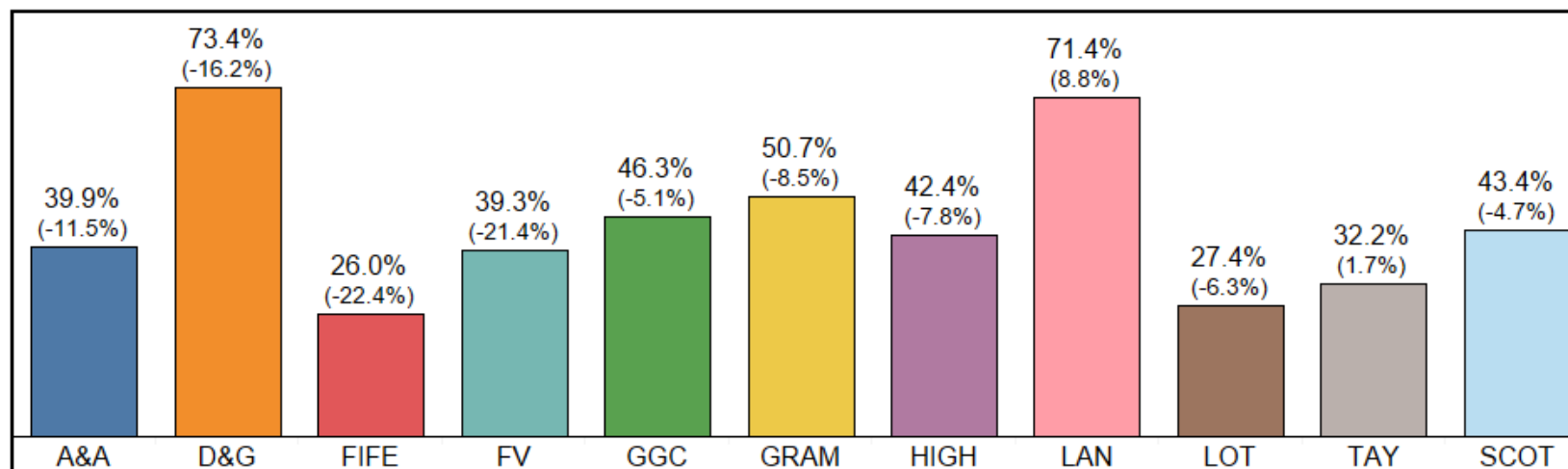
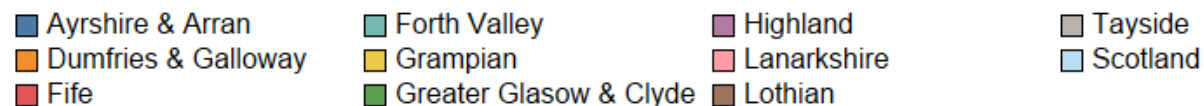
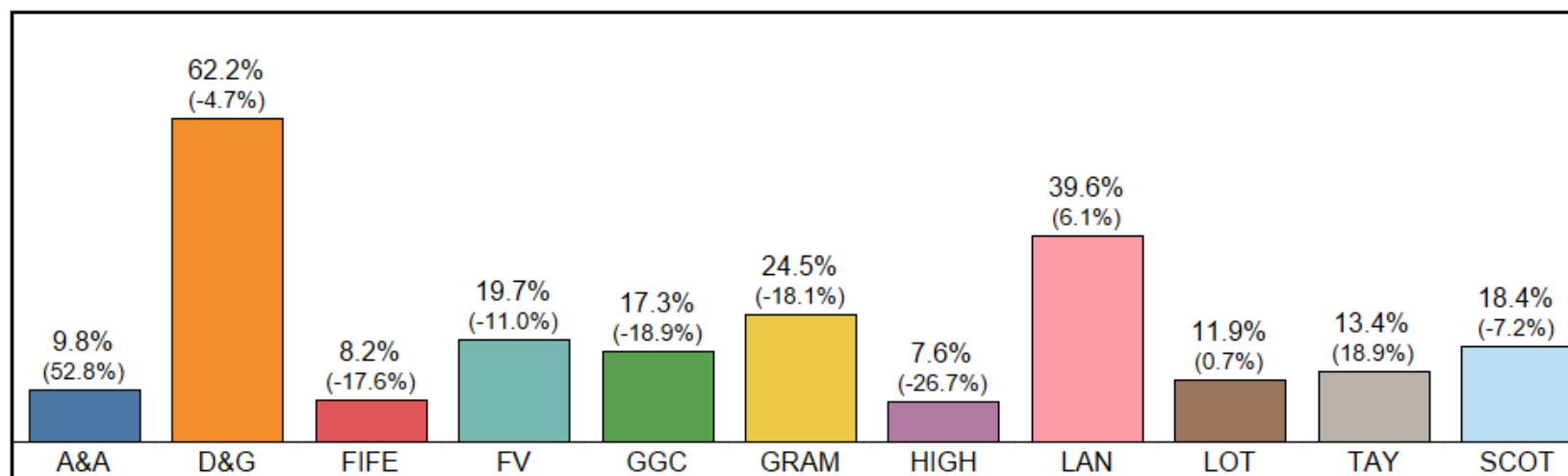
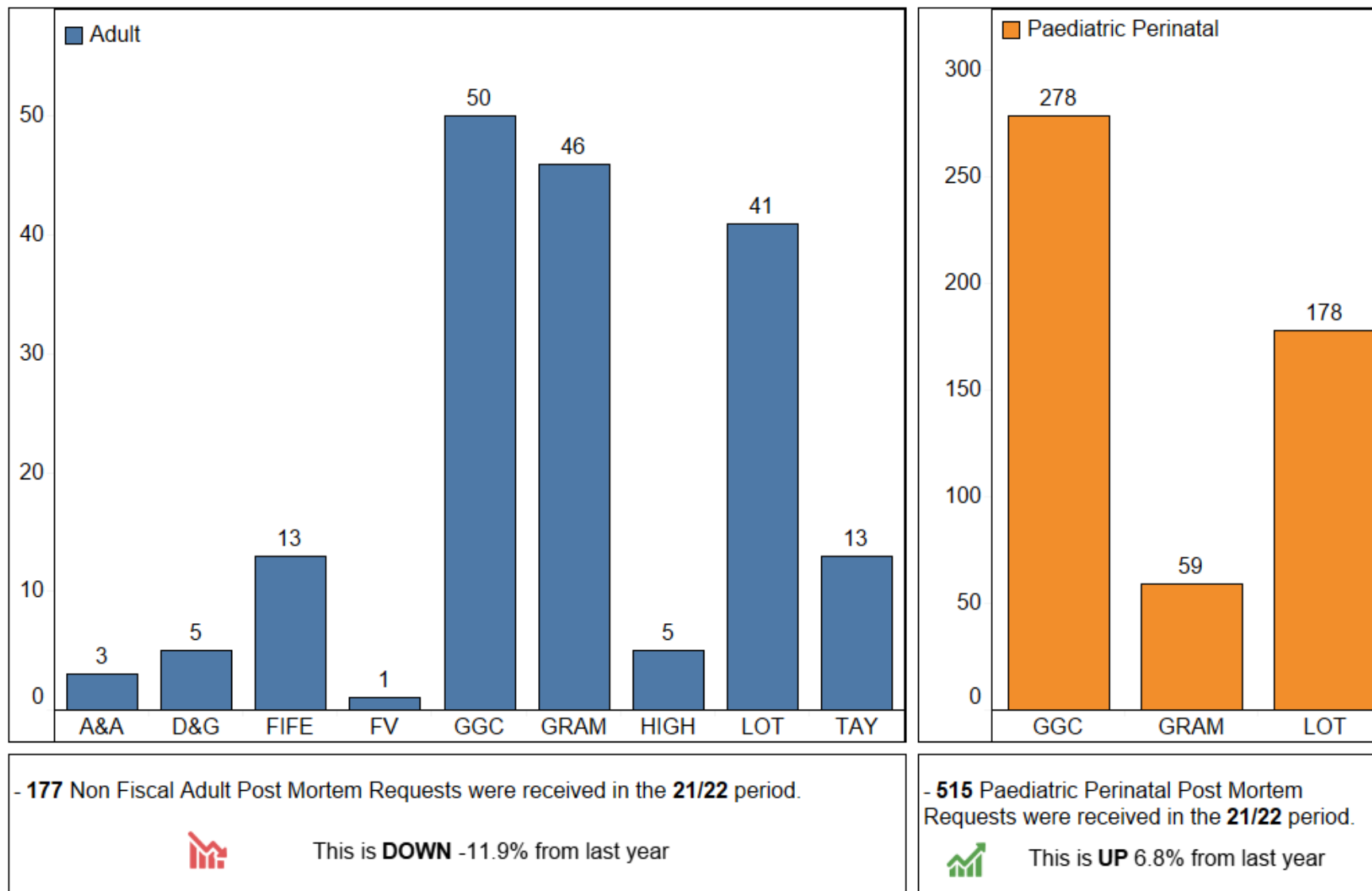


Table 17: Cytopathology – Non-Cervical/Diagnostic Cytopathology Request Reported in 1 Calendar Day



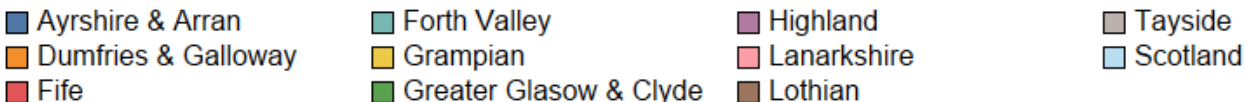
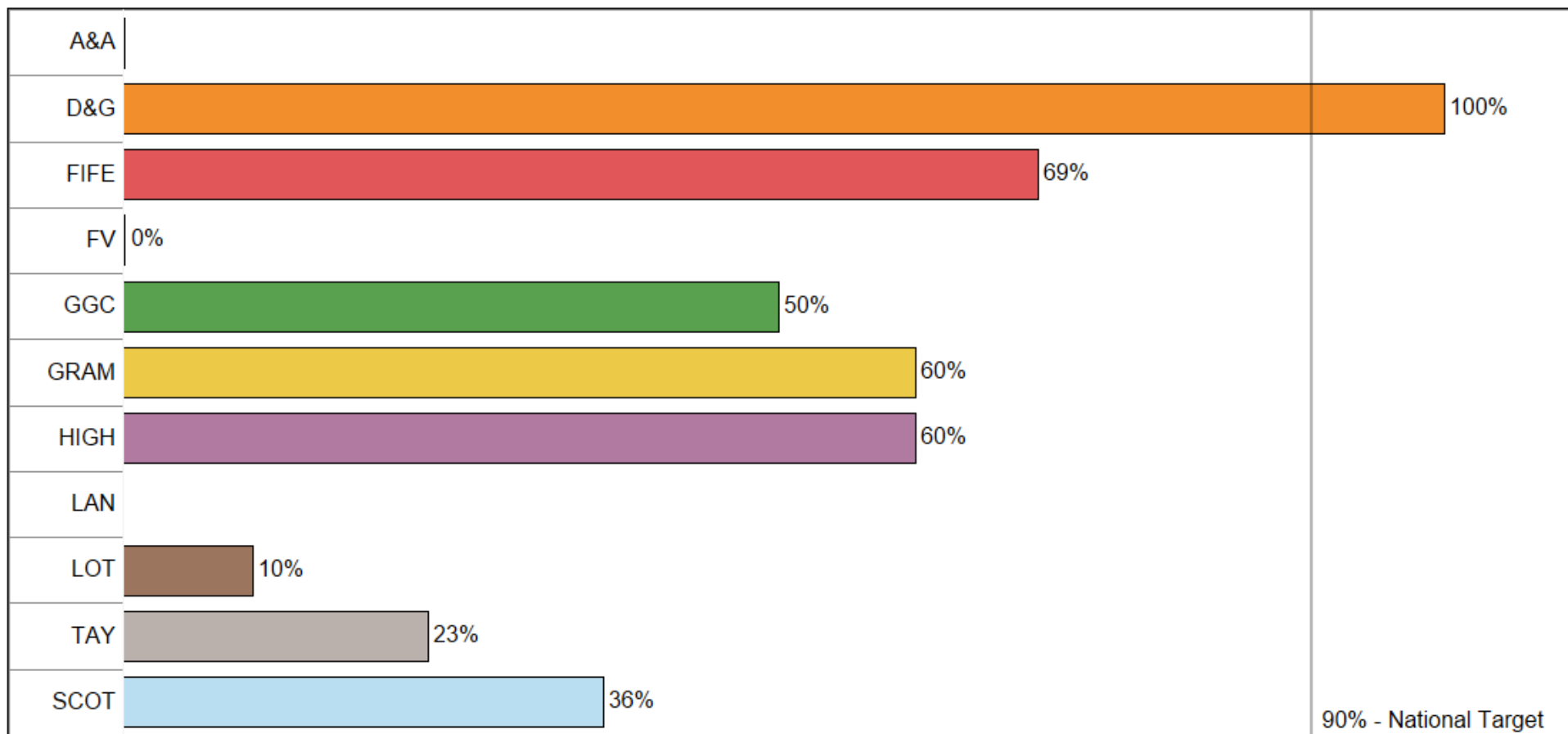
5 Post Mortem Requests

Table 18: Post Mortem – Non-Fiscal Post Mortem Requests Volume for Adults & Paediatrics (if applicable to board)



5 Post Mortem Requests (continued)

Table 19: Post Mortem – Post Mortem Requests with a Final Report at 30 Working Days

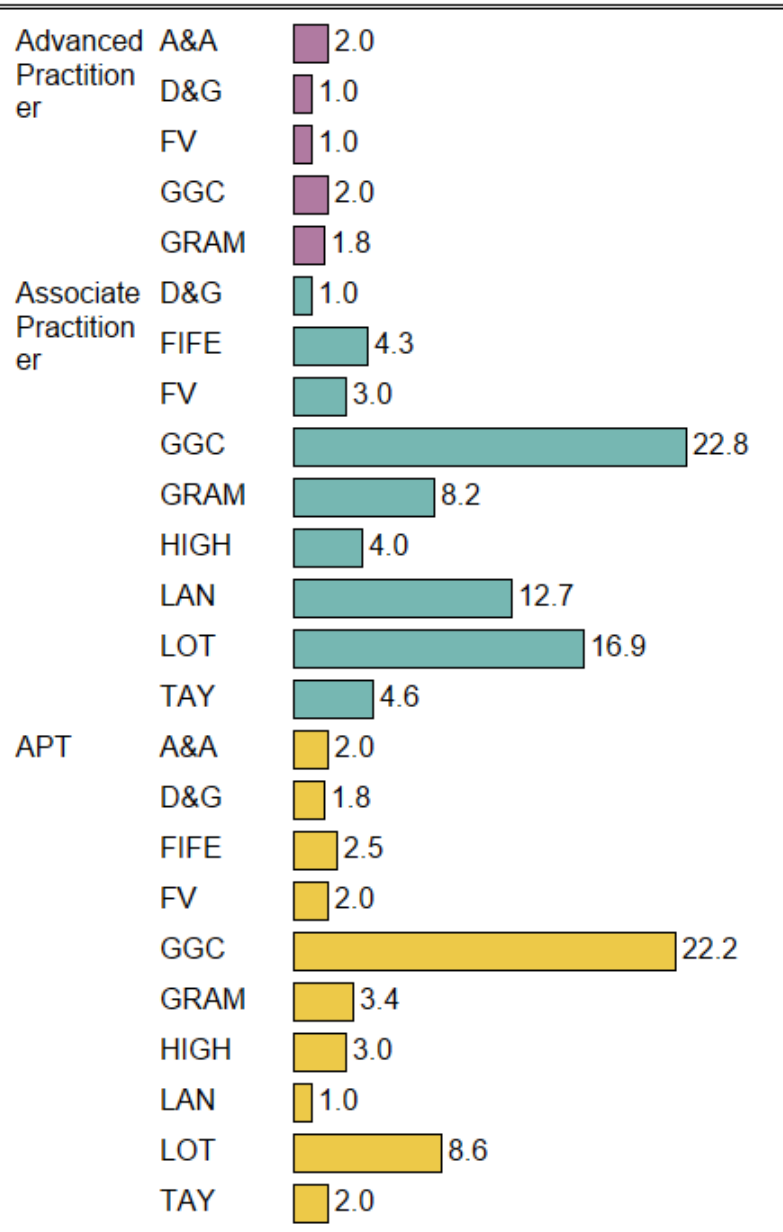


36.4% of final post mortem reports were produced within 30 working days in 21/22 within NHS Scotland. The national target is 90%.



This is DOWN -6.1% from last year.

Table 20: Workforce – Non Medical Staffing Overview: Healthcare Scientists (WTE)



- There were 7.8 WTE Advanced Practitioner staff this year in NHS Scotland.		This UP 1460.0% from last year.
- There were 77.4 WTE Associate Practitioner staff this year in NHS Scotland.		This UP 7.8% from last year.
- There were 48.6 WTE APT staff this year in NHS Scotland.		This UP 1.0% from last year.

Last 3 Years - Scotland

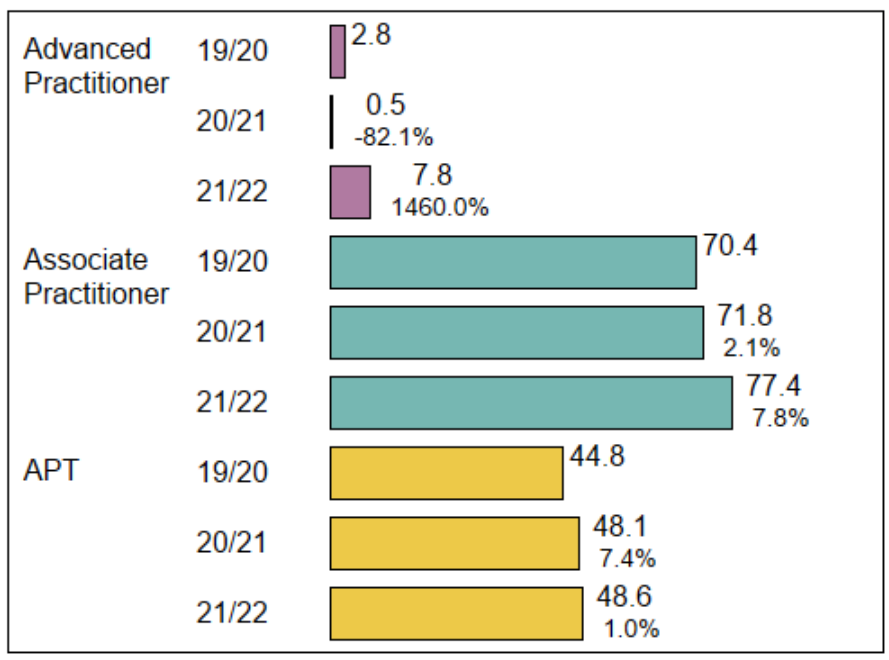
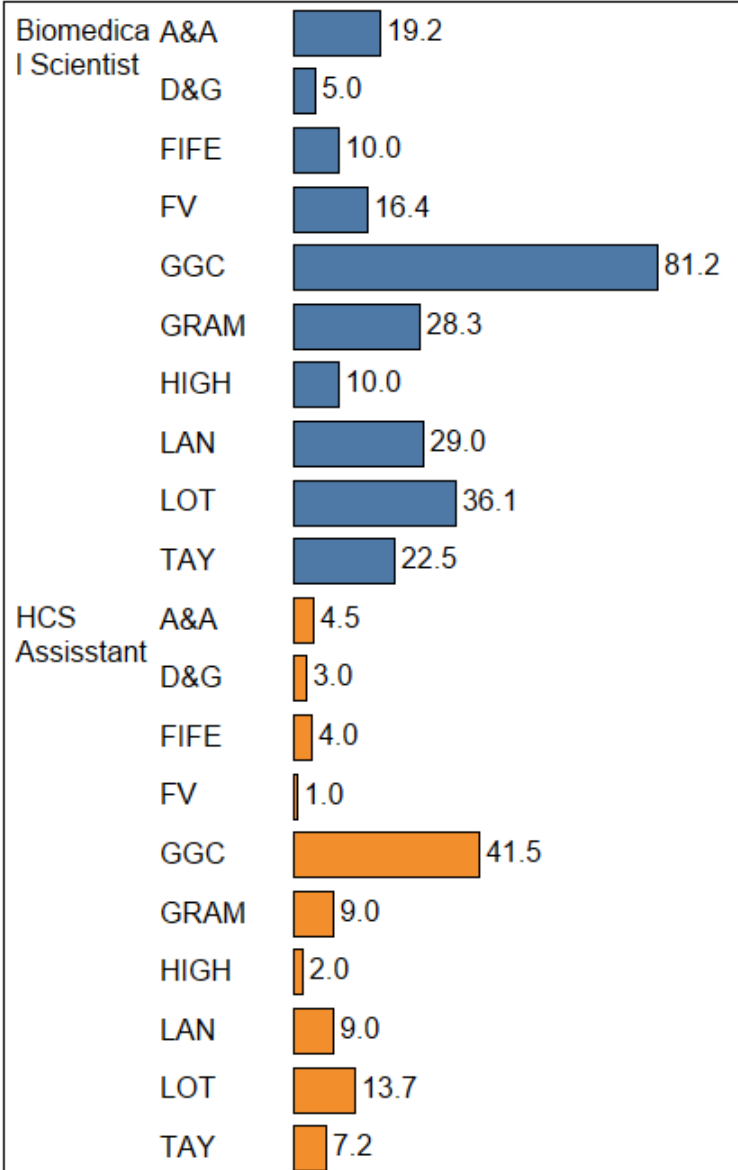


Table 21: Workforce – Non Medical Staffing Overview: Healthcare Scientists Continued (WTE)



- There were 257.6 WTE BMS staff this year in NHS Scotland.		This is DOWN -0.1% from last year.
- There were 0.0 WTE Clinical Scientist staff this year in NHS Scotland.		This is DOWN -100.0% from last year.
- There were 94.9 WTE HCS Assistant staff this year in NHS Scotland.		This is UP 1.4% from last year.

Last 3 Years - Scotland

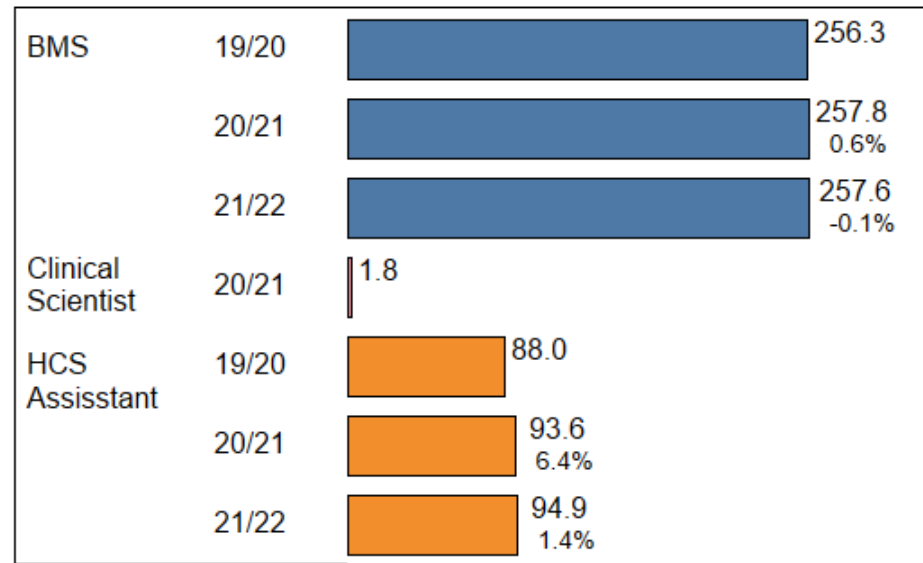
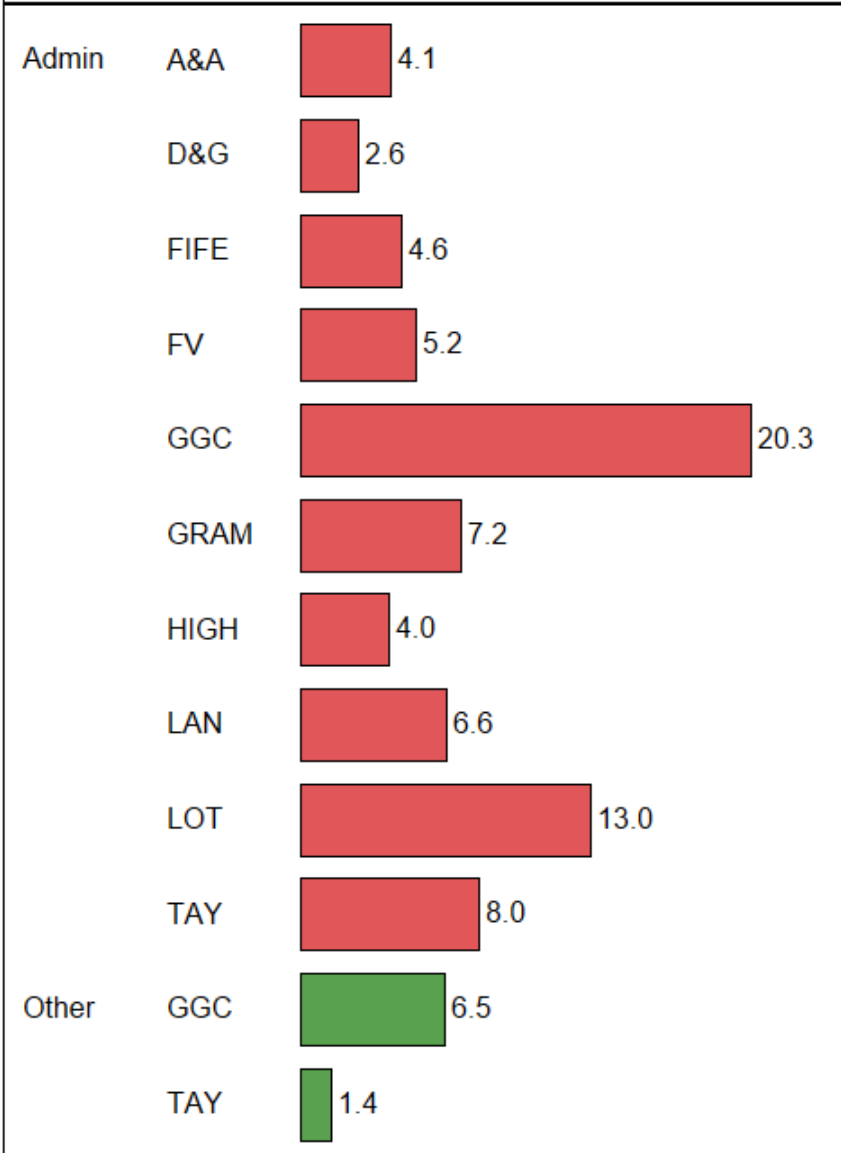


Table 22: Workforce – Non Medical Staffing Overview: A&C and Other (WTE)



- There were 75.6 WTE Admin staff this year in NHS Scotland.		This DOWN -4.5% from last year.
- There were 7.9 WTE Other staff this year in NHS Scotland.		This DOWN -18.6% from last year.

Last 3 Years - Scotland

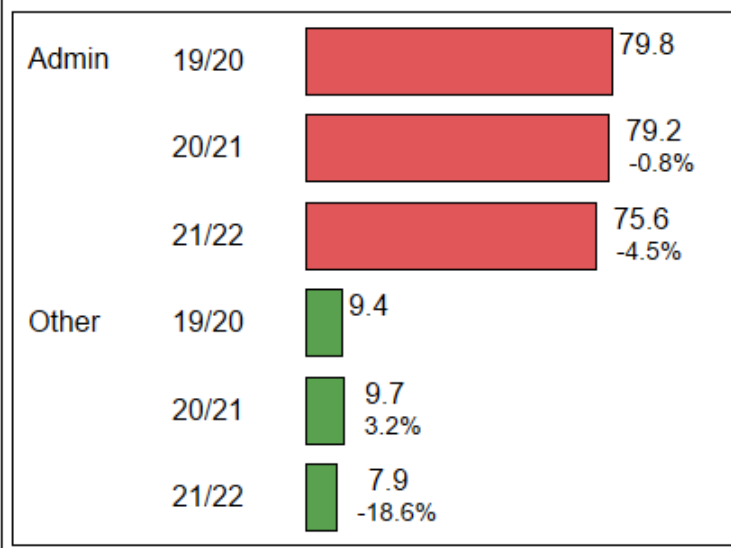
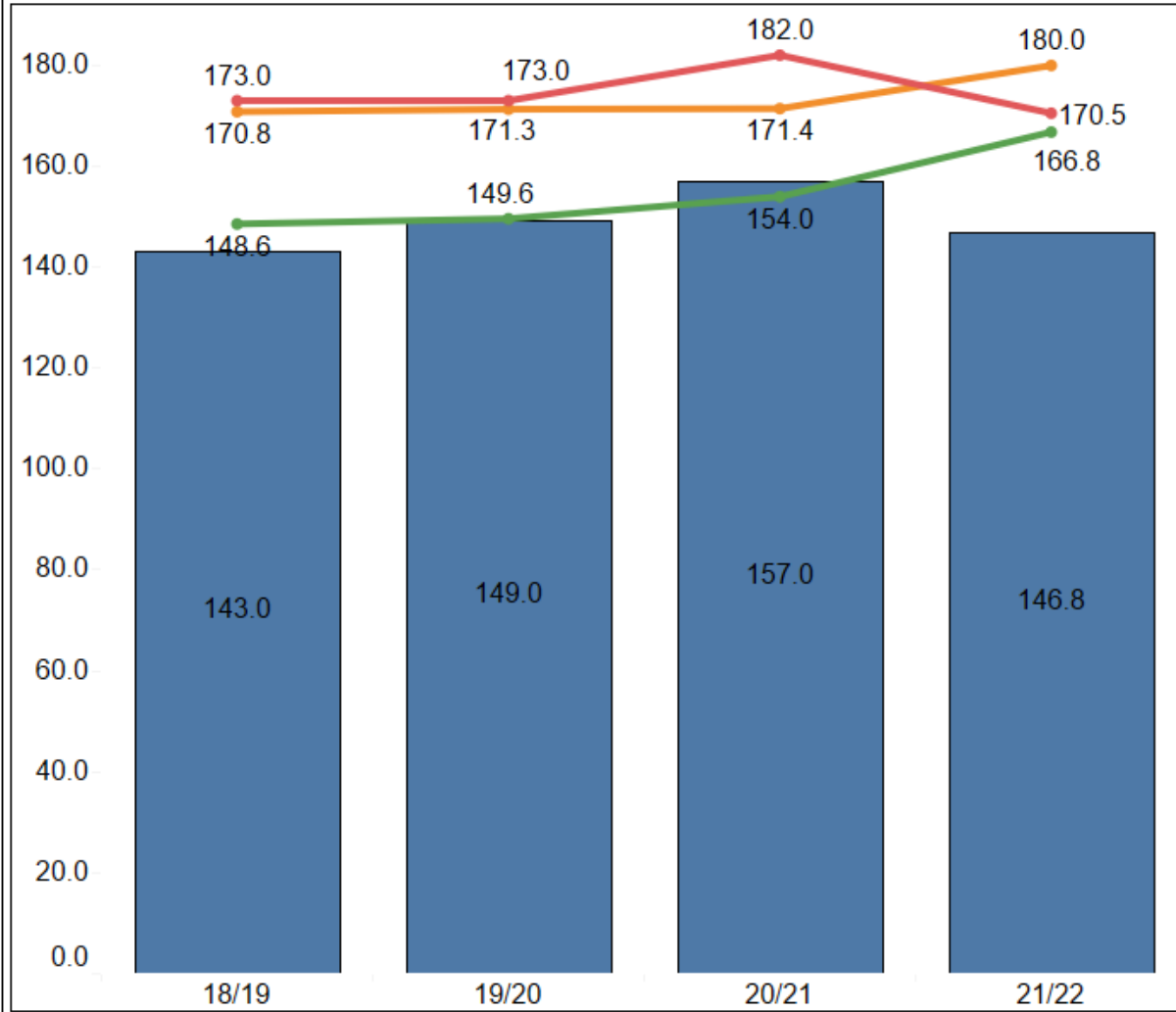


Table 23: Workforce - Total Medical Workforce (Headcount)



- Total Headcount in post (All Career Grade)
- Total Pseudo WTE in post (All Career Grade)
- Total Headcount (Uni+NHS+Approved Vacancies)
- Total Pseudo WTE All Career Grade+Vacancies)

Formulas

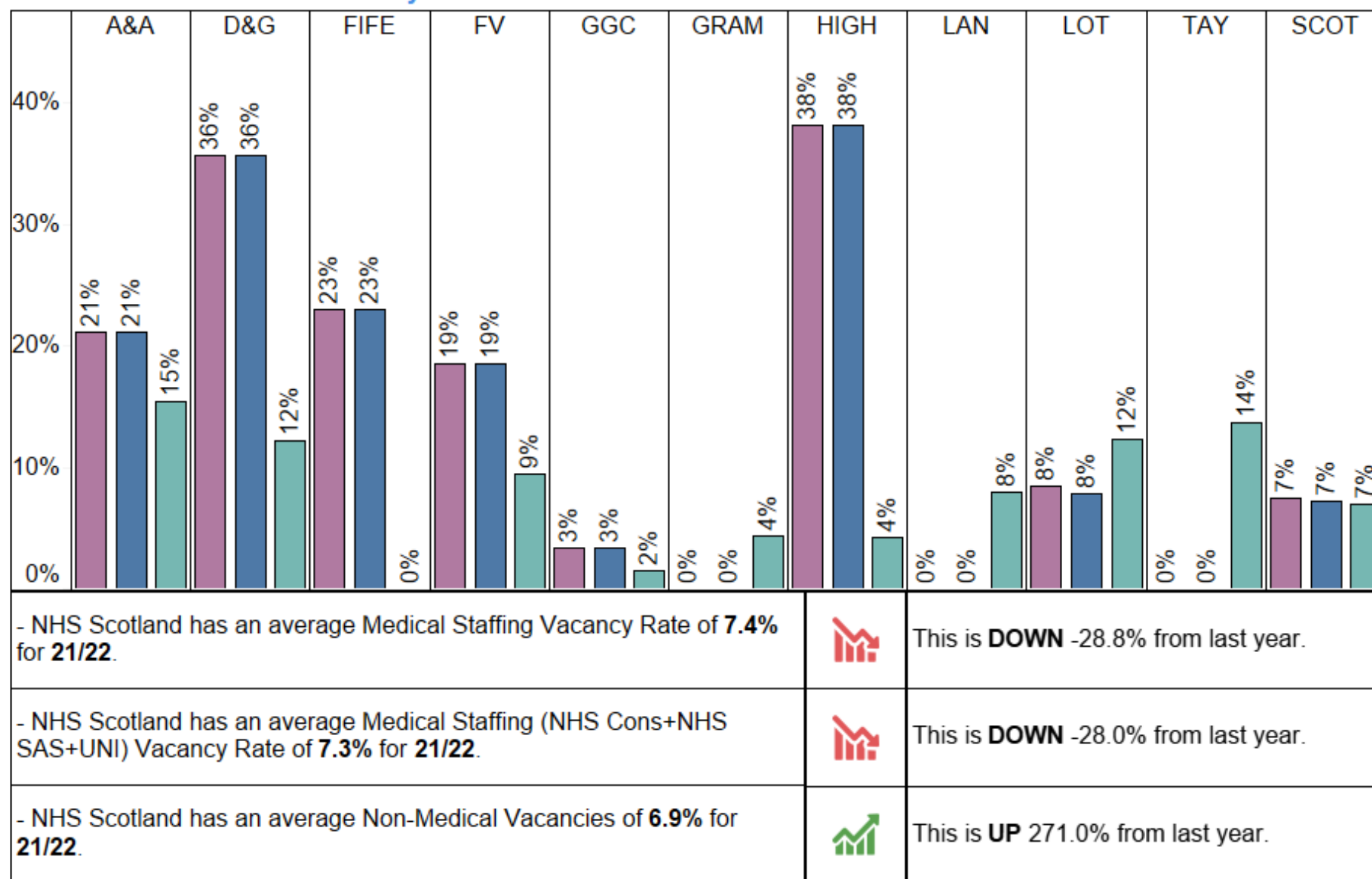
Total Headcount (Uni+NHS+Approved Vacancies) = NHS consultants in post + NHS Consultants Vacancies + Non-consultant career grade medical staff in post + University consultants in post (Headcount) + University consultant vacancies (Approved vacancies - Headcount)

Total NHS Headcount in post (All Career Grade) = NHS consultants in post + Non-consultant career grade medical staff in post

Total Pseudo WTE in post (All Career Grade) = (Number of Direct Clinical Contact (DCC) Programmed Activities (PA) in post + Extra Programmed Activities (EPA) in post + Supporting Professional Activities (SPA) in post + Additional Responsibilities PA in post + External Duties PA in post + Non-consultant career-grade medical staff Sessions or Programmed Activities in post) / 10

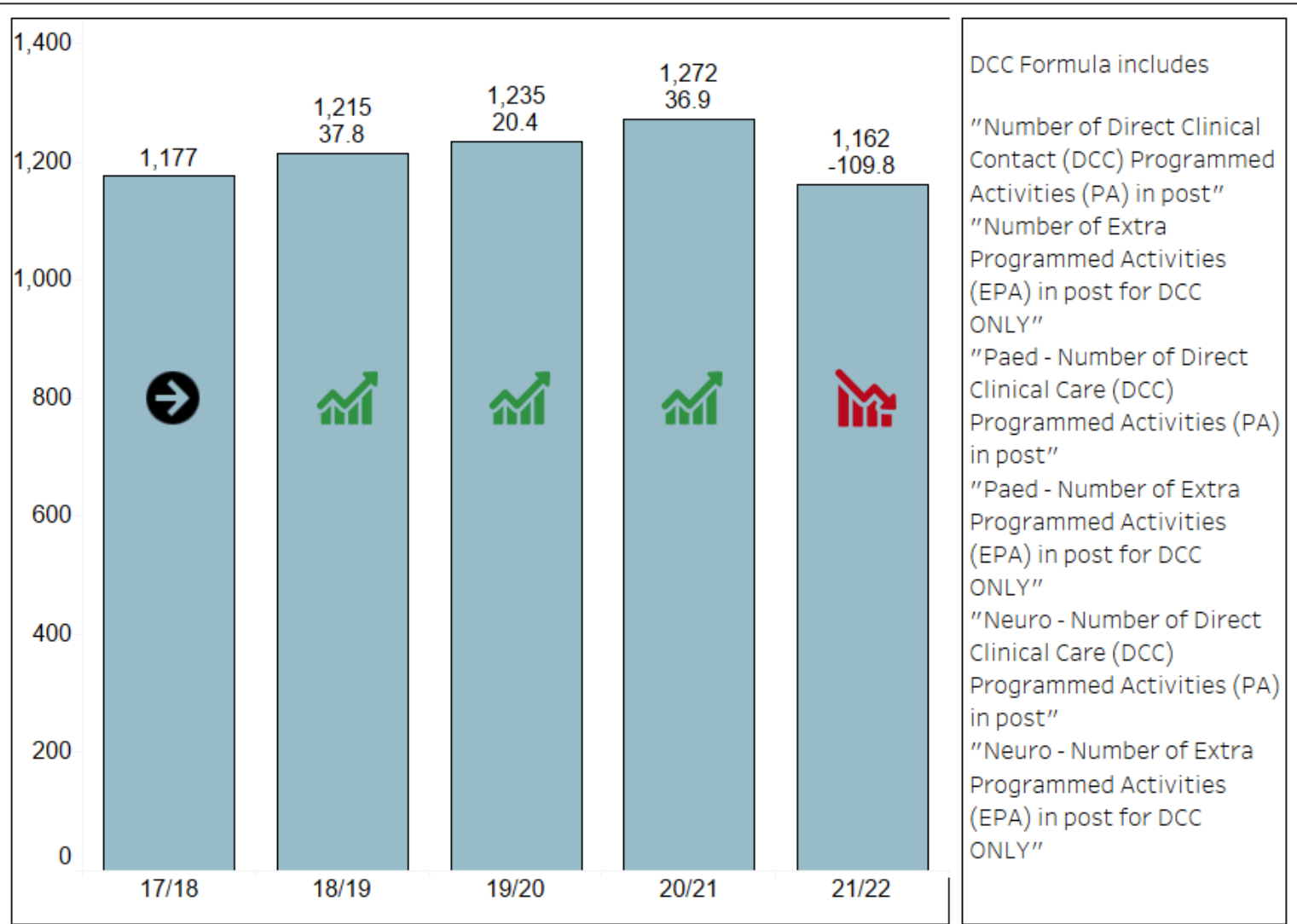
Total Pseudo WTE in post (All Career Grade+Vacancies) = (Number of Direct Clinical Contact (DCC) Programmed Activities (PA) in post + Number of Extra Programmed Activities (EPA) in post + Number of Supporting Professional Activities (SPA) in post + Number of Additional Responsibilities PA in post + Number of External Duties PA in post + Non-consultant career-grade medical staff Sessions or Programmed Activities in post + NHS consultant vacancies (WTE) / 10.

Table 24: Workforce – Vacancy Rate



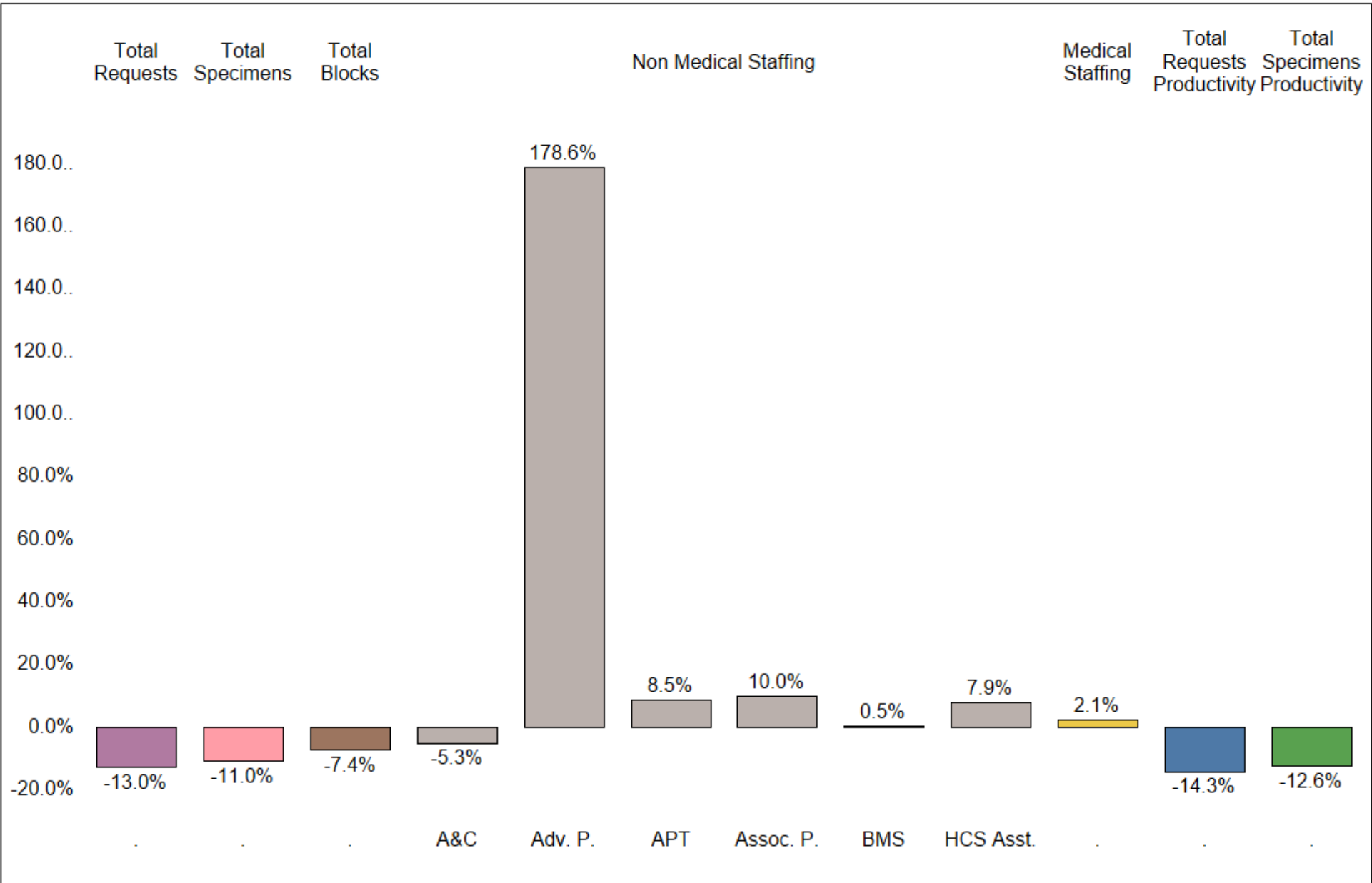
- Medical Staffing Vacancy Rate
- Med and Uni/SAS Consultant Vacancy Rate
- Non Medical Staffing Vacancy Rate

Table 25: Workforce - Total DCC Sessions by Year



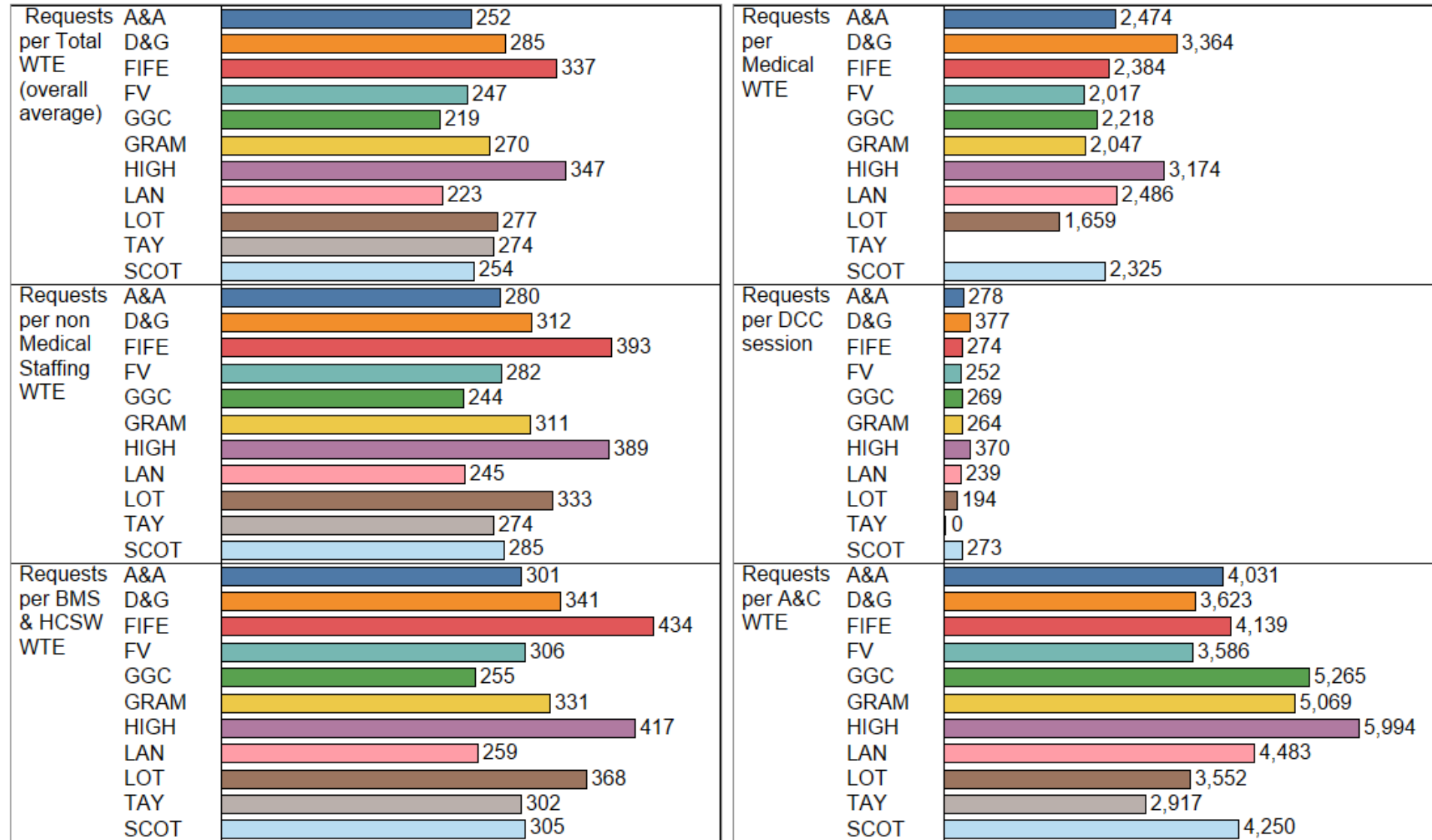
The 21/22 DCC figure of 1,162 represents a FIVE year % Change of -1.2%

7 Workload vs. Workforce Table 26: Workload vs. Workforce - 3 year Change Snapshot



8 Notional Productivity

Table 27: Productivity - Notional Non-Screening Requests per WTE

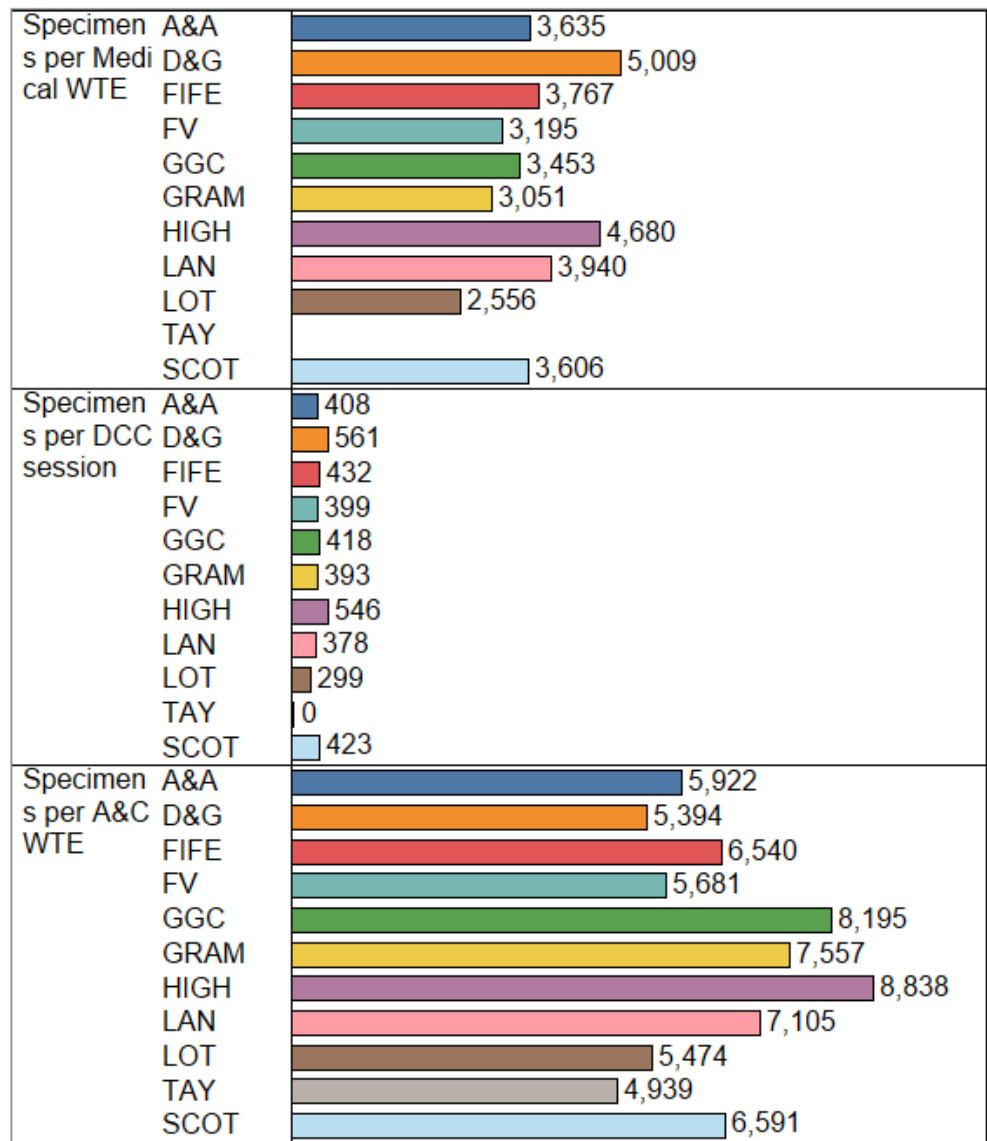
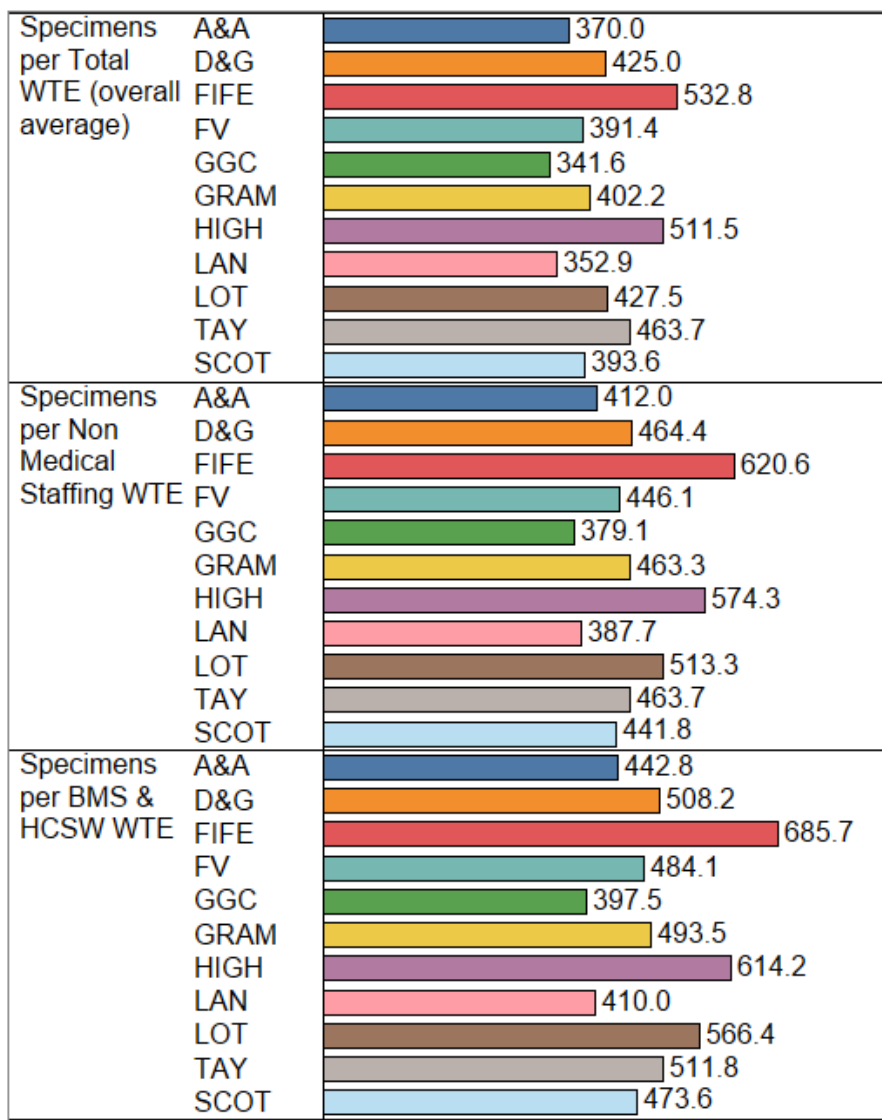


The **average** notional Non-Screening **requests** per total WTE for NHS in 21/22 was **253.8 requests** to 1 WTE.



This is UP 35.1% from last year.

Table 28: Productivity - Notional Non-Screening Specimens per WTE



The **average** notional Non-Screening **specimens** per total WTE for NHS in 21/22 was **53.88 specimens** to 1 WTE.



This is **DOWN -32.9%** from last year.

9 Notional Costs

Table 29: Costs – Notional Total Non-Screening Requests, Overview (Costs / Number of Requests)

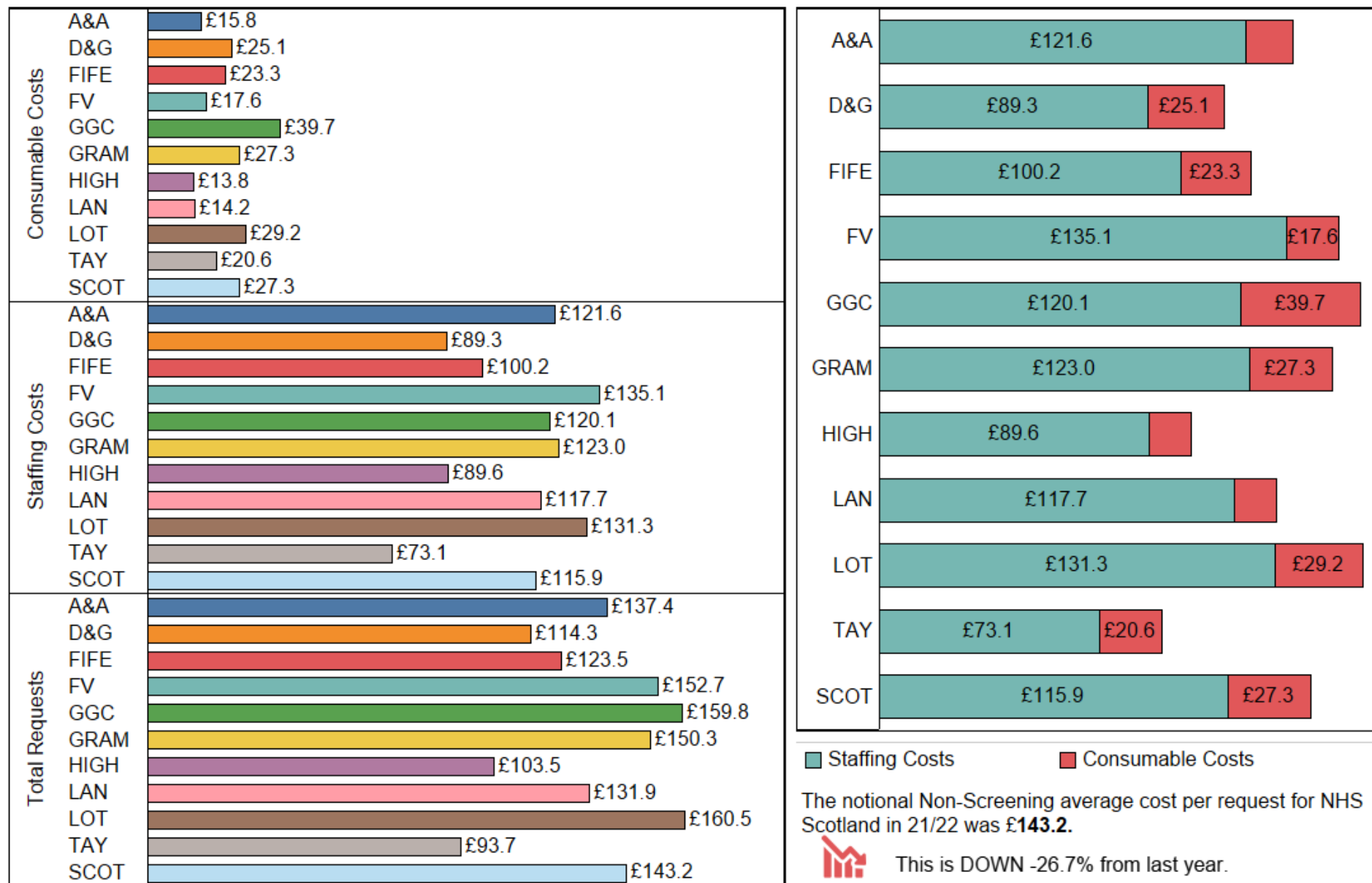
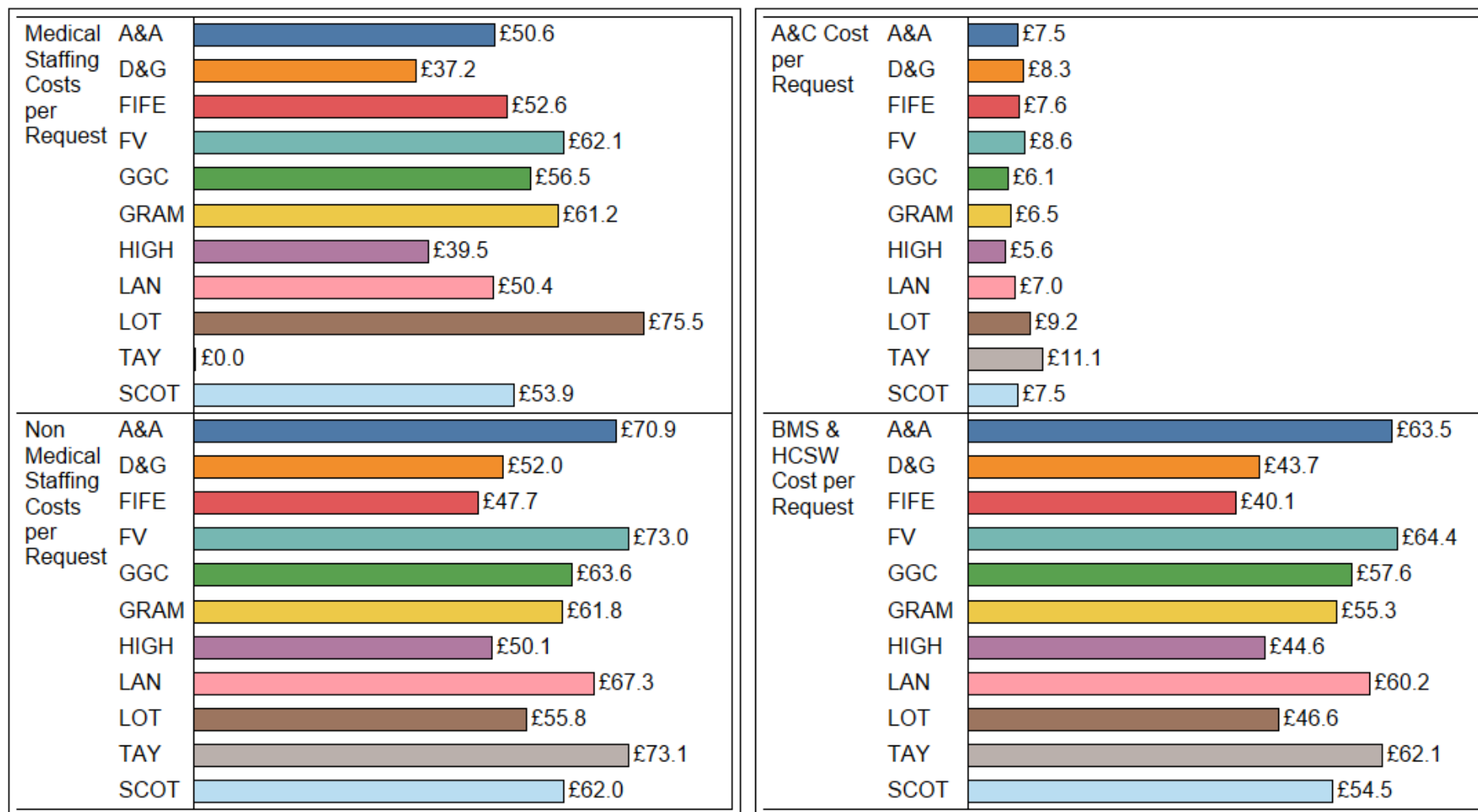


Table 30: Costs – Notional Non-Screening Requests, Staffing Costs Drill Down (Costs / Number of Requests)



The average Medical Staffing Costs per Request for NHS in **21/22** was **£53.88**.



This is **DOWN** -32.9% from last year.

The average A&C Cost per Request for NHS in **21/22** was **£7.53**.



This is **DOWN** -27.8% from last year.

The average Non Medical Staffing Costs per Request for NHS in **21/22** was **£62.05**.



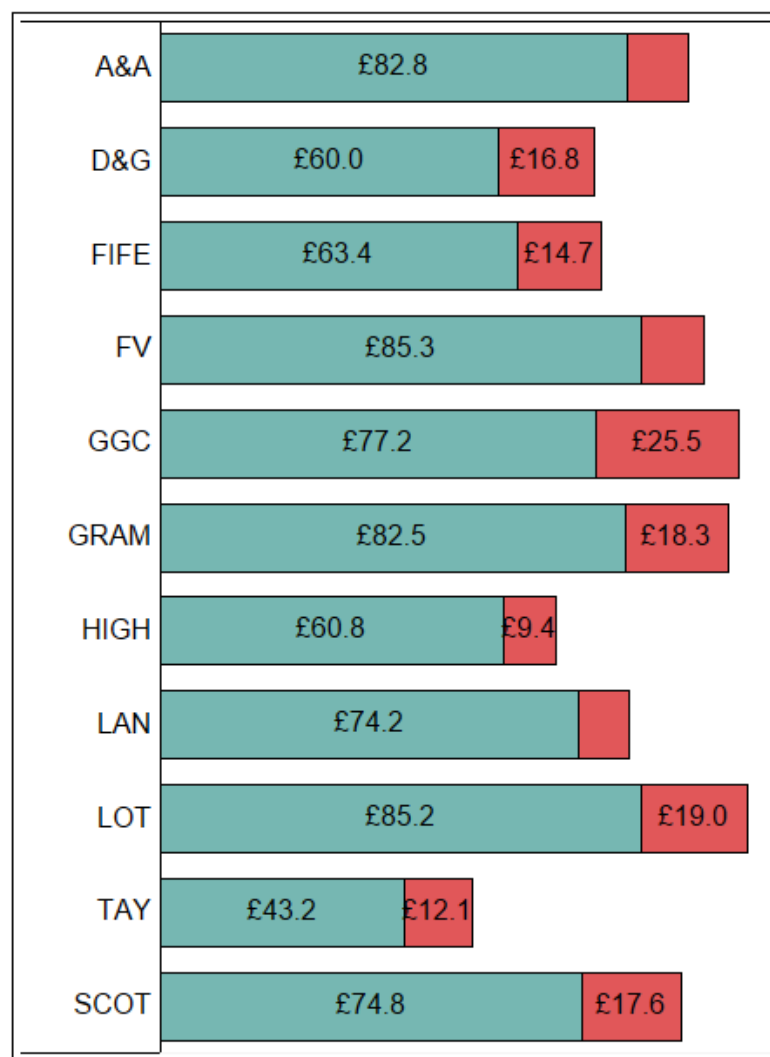
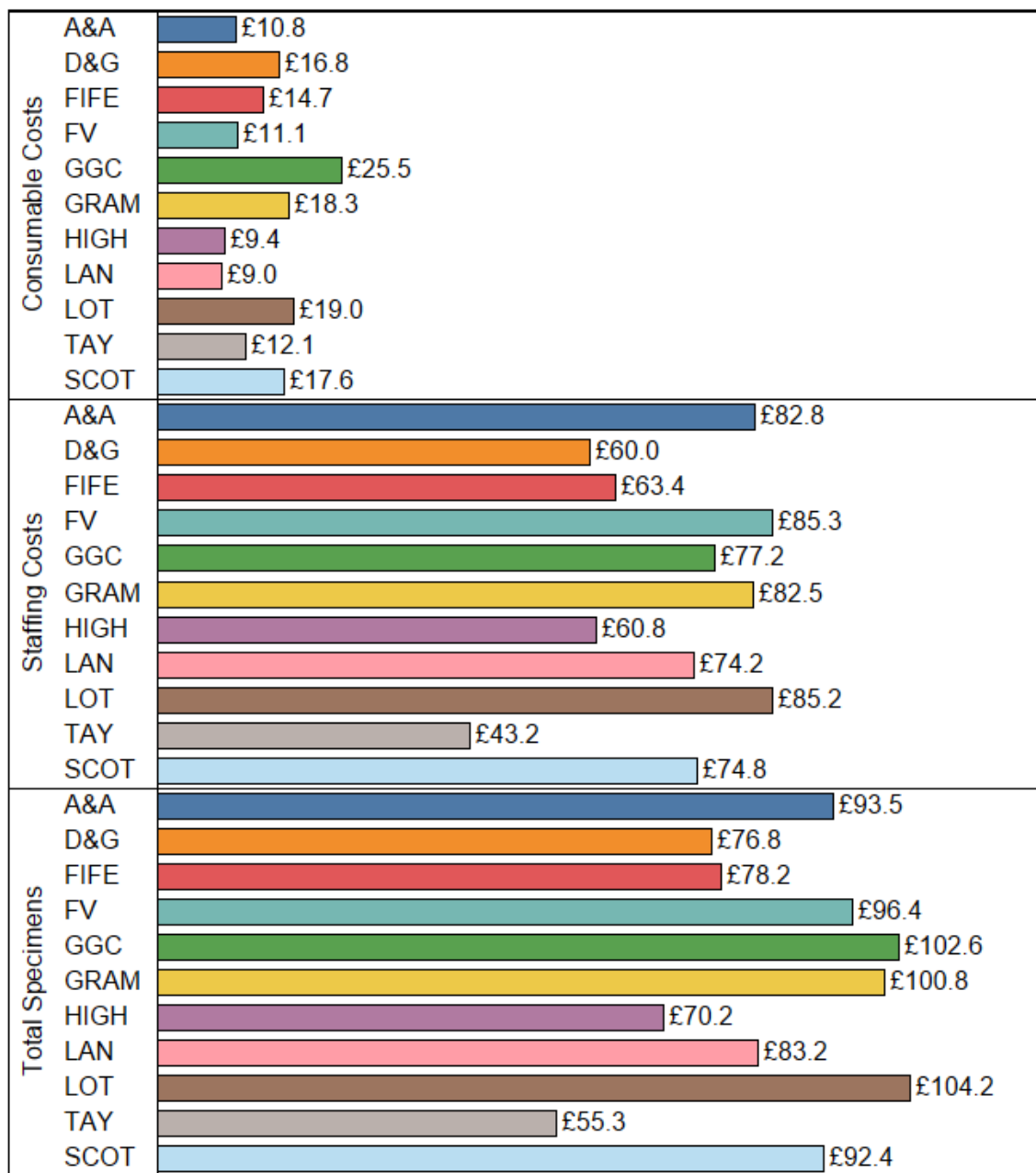
This is **DOWN** -24.9% from last year.

The average BMS & HCSW Cost per Request for NHS in **21/22** was **£54.52**.



This is **DOWN** -24.4% from last year.

Table 31: Costs – Notional Non-Screening Specimens, Overview (Costs / Number of Specimens)



■ Staffing Costs ■ Consumable Costs





The notional Non-Screening average cost per specimen for NHS Scotland in 21/22 was **£92.36**.



This is **DOWN -27.5%** from last year.

Table 32: Costs – Notional Non-Screening Specimens, Staffing Costs Drill Down (Costs / Number of Specimens)

Medical Costs per Specimen	A&A	£34.5	A&C Cost per Specimen	A&A	£5.1
	D&G	£25.0		D&G	£5.6
	FIFE	£33.3		FIFE	£4.8
	FV	£39.2		FV	£5.4
	GGC	£36.3		GGC	£3.9
	GRAM	£41.1		GRAM	£4.4
	HIGH	£26.8		HIGH	£3.8
	LAN	£31.8		LAN	£4.4
	LOT	£49.0		LOT	£6.0
	TAY	£0.0		TAY	£6.5
SCOT	£34.7	SCOT	£4.9		
Non Medical Staffing Costs per Specimen	A&A	£48.3	BMS & HCSW Cost per Specimen	A&A	£43.2
	D&G	£34.9		D&G	£29.4
	FIFE	£30.2		FIFE	£25.4
	FV	£46.1		FV	£40.7
	GGC	£40.9		GGC	£37.0
	GRAM	£41.5		GRAM	£37.1
	HIGH	£34.0		HIGH	£30.2
	LAN	£42.4		LAN	£38.0
	LOT	£36.2		LOT	£30.2
	TAY	£43.2		TAY	£36.7
SCOT	£40.0	SCOT	£35.2		

The average Medical Costs per Specimen for NHS in 21/22 was £34.75 .		This is DOWN -33.6% from last year.	The average A&C Cost per Specimen for NHS in 21/22 was £4.86 .		This is DOWN -28.6% from last year.
The average Non Medical Staffing Costs per Specimen for NHS in 21/22 was £40.01 .		This is DOWN -25.7% from last year.	The average BMS & HCSW Cost per Specimen for NHS in 21/22 was £35.16 .		This is DOWN -25.3% from last year.