

Innovation – Budget Manager Application and Budget Holder Sign Off

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Background/Journey of BI Development at East and North Herts NHS Trust

Timeline:

- **2005** - East and North Herts Trust joined SBS Shared Services and used Oracle ledger system and associated business intelligence application
- **Prior to 2017** – All financial and other business information (excluding routine budget statements) produced via excel datasets, pivot tables and sent out manually. No one version of truth for business intelligence!
- **End 2016** – Current CFO joined ENHT who had a background in using extensive BI through Qlikview applications
- **2017** - Purchase Qlikview licenses and development of initial finance applications – Budget Reporting, Budget Setting and Forecast Outturn
- **2017-18** – Establishment of a Business Intelligence Function to create Qlikview applications across a range of domains.
- **2018-24** – Expansion and development of Qlikview applications. Finance applications have largely continued to be developed by Finance team with expert input from BI team, if required.
- **2020** – Development of **Budget Manager App** – first application to have row level security/restricted access
- **2024** – Development and refinement of existing applications to Power BI
- **April 2025** – Launch of all applications on Power BI

Business Intelligence – Most Used Apps

Since 2017, Qlikview applications have been developed relating to Finance, People, Quality, Operations and Trust-wide. The most widely used 12 applications for each Domain are included on the Qlikview home page, with access to further apps available on drill down of domain name.

Business Intelligence NHS East and North Hertfordshire NHS Trust				
Corporate	Quality	Operations	Finance	People
Board Dashboard	2222 Peri / Cardiac Arrest	Activity Recovery 2024-25	Budget Holder List and Sign-Off	e-Roster
Balanced Scorecard	Clinical Audit	Cancer	Budget Manager 2024-25	Enquire
Executive Dashboard	e-Observations	Diagnostics DM01	Budget Reports 2024-25	Job Planning
Access Plans	EPMA	Discharge Summaries	Budget Setting 2025-26	Long Term Trends
Clinical Coding	Friends and Family Test	ED Command Centre	CIP Tracker 2025-26	Medical Rostering
DQ APC Activity	National Data Opt-Out Search Tool	ED SitRep	CIP Tracker 2024-25	Payroll Listing
DQ Dashboard	Pharmacy	Outpatients	Drugs Trend	Prospective Vacancies
DQ KPIs	Pharmacy Demand	Patient Tracking List	ERF Expenditure Tracker 2024-25	Recruitment Pipeline
DQ Validations	Policy Compliance	RTT PTL	iSLR Reports 2024-25	Temporary Staffing
ED Coding Safety Net	Quality and Safety	RTT Validation	Pay Monitor Report 2024-25	Utilisation
ED Uncoded Attendances	Safeguarding	Theatres	Productivity 2024-25	Vacancies
Staff Vaccination Compliance	VTE	Trajectory Monitoring	SLA Monitoring 2024-25	Workforce Dashboard

Business Intelligence – Finance Apps

- Below are some of the main finance Qlikview applications used. As we are transitioning to Power BI, we are using opportunity to streamline some apps, so there are fewer in total.

General	2024-25	Procurement	Financial Accounts
Budget Holder List and Sign-Off	Bank and Agency 2024-25	NHS Supply Chain	Balance Sheet
Drugs Trend	Budget Manager 2024-25	Non-Purchase Order	Capital 2024-25
Expenses Claimed	Budget Reports 2024-25	Purchase Orders	Creditors Report
ICS Financial Reporting	Budget Tracker 2024-26	Supplier History	Debtors Report
Long Term Trends	CIP Tracker 2024-25	Non Catalogue	SLA Income
CIP Tracker 2025-26	Detailed Transactions 2024-25	Forecast Outturn	SLA Monitoring 2024-25
Budget Setting	ERF Expenditure Tracker 2024-25	2024-25 Forecast Outturn (Draft)	SLR Reports
Budget Setting 2025-26	Financial Reporting 2024-25	2024-25 Actual vs. Forecast	iSLR Reports 2024-25
	Pay Monitor Report 2024-25		

Phase 1 – Development of Budget Manager App (1)

The Problem:

- Traditionally Budget Statements and Payroll Listings had been emailed out to budget holders direct from SBS. As this was a standard product, there wasn't any scope for flexibility in design and functionality of statements. The relevant Management Accountant didn't have copy of budget statement in same format as budget holder.
- The Qlikview budget reporting application shows budget statement, workforce (WTE) and trends at all levels and requires navigation by budget holder to show their cost centre level.
- There was no security restriction on the existing budget reporting application, so was unable to display sensitive information including payroll listings and detailed transactions.

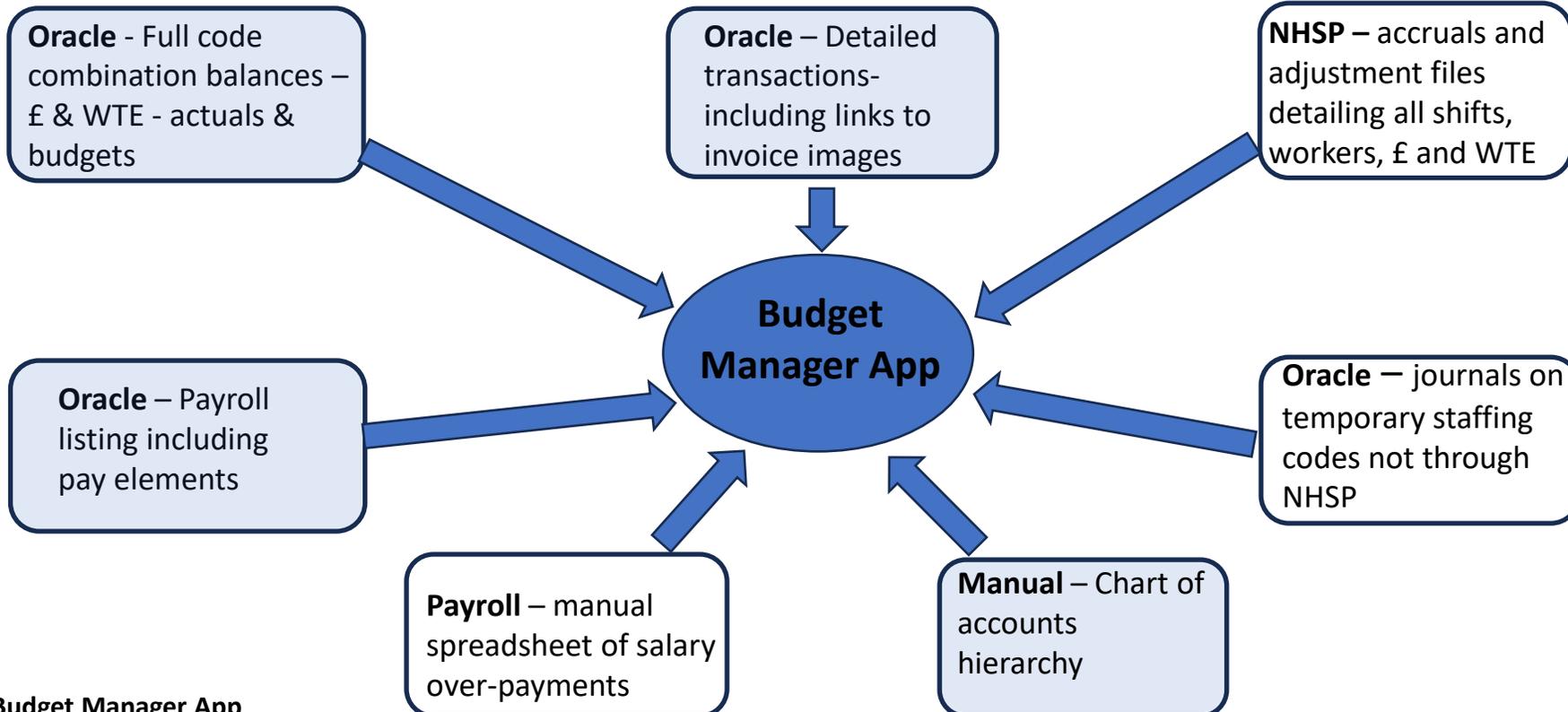
The Aim of Budget Manager App:

- Develop simple, user friendly Qlikview application to show budget holder cost centre budget statements, with payroll listings and drill down to detailed transactions functionality.
- Restricted access to Budget Manager, their line manager(s) and finance only
- Include other useful information such as payroll, temporary staffing shifts and pay element trends, as well as non-PO compliance and salary overpayments.
- Budget Manager app to be used as key tool at budget meetings between management accountant and budget holder.

Phase 1 – Development of Budget Manager App (2)

- Key to development of Budget Manager application (and any other application) is linking datasets by a common factor.
- The cost centre number was a common factor in all of the datasets used in app below, with a full cost centre, account code combination used in others.

Datasets:



Key Learning:

- Be less ambitious at outset. Would only include datasets in light blue initially and prioritise setting up a basic app.
- Data quality is key!
- Use one master hierarchy to look up cost centre and account codes in datasets

Phase 1 – Development of Budget Manager Application (3)

Restricting/Section Access:

- One of the key elements/challenges of this application (and others developed since) is developing and maintaining a section access list which restricts access to users at either cost centre, service or Division level, depending on role. This was extensively tested before launch of the application.
- The section access is maintained monthly in a simple excel file to reflect any starters, leavers or changes in Budget Manager responsibilities.

Launch of the Budget Manager Application:

- The Budget Manager application was launched in 2020 with training provided by the Management Accountants to their Budget Managers.
- This was supplemented by video training material on how to navigate the application, which was uploaded to the finance section of the ENHT learning academy.
- Since launch the application has been used by 250-300 users and is the most accessed Qlikview application within the Trust.
- Feedback has been really positive from Budget Managers due to the 'ease of use' of this application.

Phase 1 – Budget Manager App (1)



Budget managers click tabs to navigate to additional information

Cost Centre Statement

View Instructions

Financial Year
2024-2025

Financial Quarter
Qtr 1 Qtr 2 Qtr 3 Qtr 4

Month
Apr Jun Aug Oct Dec
May Jul Sep Nov Jan

Management Classification
Division Planned Care
Care Group CG06-Diagnostics an...
Department Pathology
Cost Centre Name **Anticoagulation**
Cost Centre Number 170500

Spend Type
Pay/Non Pay/Income
High Level Subjective
Payroll Type
Account Description
Account Code

Journal Category
Accrual
Adjustment

Monthly Cost Centre Statement Including drilldown on In Month Actuals												
Type	Code	Subjective Description	Funded WTE	In Month Worked WTE	In Month Contract WTE	Annual Budget	In Month Budget	In Month Actual	In Month Variance	YTD Budget	YTD Actual	YTD Variance
Pay	5236	Nurse band 7	2.23	2.16	2.16	-£142,211	-£11,851	-£11,200	£651	-£118,509	-£110,293	£8,217
	5252	Bank nurse band 4	0.00	0.00	0.00	£0	£0	-£158	-£158	£0	-£1,422	-£1,422
	5268	Nurse band 6	2.20	2.20	2.20	-£124,327	-£10,361	-£9,107	£1,253	-£103,606	-£90,631	£12,974
	5270	Nurse band 4	1.60	1.00	1.00	-£57,250	-£4,771	-£3,008	£1,763	-£47,709	-£35,698	£12,010
	5285	Nurse Band 8A	1.00	1.00	1.00	-£74,277	-£6,190	-£6,350	-£160	-£61,897	-£63,993	-£2,095
	5657	Admin & Clerical band 3	2.00	2.00	2.00	-£59,397	-£4,950	-£5,134	-£184	-£49,497	-£53,852	-£4,355
	5833	Agency Admin & Clerical	0.00	0.00	0.00	£0	£0	£0	£0	£0	£2,199	£2,199
	Total		9.03	8.36	8.36	-£457,462	-£38,122	-£34,957	£3,165	-£381,218	-£353,690	£27,529
Non Pay	7010	Dressings	0.00	0.00	0.00	-£21	-£2	£0	£2	-£18	-£18	-£0
	7021	Med & Surg Equip Disp	0.00	0.00	0.00	-£1,396	-£116	-£30	£86	-£1,163	-£262	£901
	7126	Laboratory Test Kits	0.00	0.00	0.00	-£24,723	-£2,060	-£2,236	-£176	-£20,602	-£25,771	-£5,169
	7127	Laboratory Quality Ctrl	0.00	0.00	0.00	-£812	-£68	£0	£68	-£677	-£10,053	-£9,379
	7221	Stationery	0.00	0.00	0.00	-£565	-£47	£2	£49	-£471	£755	-£284
	7270	Travel & Subsistence	0.00	0.00	0.00	£0	£0	-£87	-£87	£0	-£1,092	-£1,092
	7352	Office Equipment Hire	0.00	0.00	0.00	£0	£0	£0	£0	£0	£252	£252
	7354	Computer Hardware Purch	0.00	0.00	0.00	£0	£0	£0	£0	£0	-£75	-£75
	7355	Computer Software/License	0.00	0.00	0.00	£0	£0	-£941	-£941	£0	£5,646	-£5,646
	7357	Computer Maintenance	0.00	0.00	0.00	-£8,988	-£749	-£799	-£50	-£7,490	£1,918	£9,408
7487	Miscellaneous Expenditure	0.00	0.00	0.00	£0	£0	-£29	-£29	£0	-£29	-£29	
	Total		0.00	0.00	0.00	-£36,504	-£3,042	-£4,122	-£1,080	-£30,420	£41,534	-£11,114
Total			9.03	8.36	8.36	-£493,966	-£41,164	-£39,079	£2,085	-£411,638	£395,223	£16,415

If budget holder has one cost centre then this will default view. If has multiple budgets then will need to select relevant cost centre name or number

Allows drill down to transaction by clicking on in month actual

Allows drill down to YTD transactions if select all months. Including link to purchase invoice image

Phase 1 – Budget Manager App (2)

Payroll Listing – Incl name, contracted WTE, worked Wte & £

Subjective Code	Subjective Description	Employee Name	Employee Number	Contract WTE	Worked WTE	(£) Charge (incl on costs)
5236	Nurse band 7		10508255	0.83	0.83	4,545
5236	Nurse band 7		32848967	0.40	0.40	2,152
5236	Nurse band 7		27203457	0.93	0.93	4,496
5236	Nurse band 7	Totals:		2.16	2.16	11,193
5268	Nurse band 6		10509572	0.80	0.80	3,738
5268	Nurse band 6		27748593-2	0.76	0.76	2,728
5268	Nurse band 6		30870448	0.64	0.64	2,448
5268	Nurse band 6	Totals:		2.20	2.20	8,913
5270	Nurse band 4		25599655	1.00	1.00	3,008
5270	Nurse band 4	Totals:		1.00	1.00	3,008
5285	Nurse Band 8A		10508094	1.00	1.00	6,159
5285	Nurse Band 8A	Totals:		1.00	1.00	6,159
5657	Admin & Clerical band 3		32015647	0.60	0.60	1,541
5657	Admin & Clerical band 3		32942230	0.40	0.40	924
5657	Admin & Clerical band 3		29183580	0.60	0.60	1,621
5657	Admin & Clerical band 3		26696505	0.40	0.40	1,047
5657	Admin & Clerical band 3	Totals:		2.00	2.00	5,133
7270	Travel & Subsistence		25599655	0.00	0.00	87
7270	Travel & Subsistence	Totals:		0.00	0.00	87
Totals:				8.36	8.36	34,493

Temporary Staffing – include date of shift, £ & WTE charged in month including retrospective shifts. Used to verify temporary workers & missing shifts

Account Description	Staff Name	Shift Month	Shift Date	GBP Value
Bank nurse band 4	Staff ABC	Jan 2025	10/01/2025	£155
Bank nurse band 4		Jan 2025	Shift Month Totals:	£155
Bank nurse band 4	Staff ABC	Staff Name Totals:		£155
Bank nurse band 4	Account Code Totals:			£155

Payroll Elements Trend – show monthly pay by payroll element. Used to identify any unexplained changes in pay

Staff Name	Element Number and Desc	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25
	3006#Basic Pay Arrs							£1,974			
	3284#Sal Sac Grp 0 Arrs			£396							
	3483#Pension ER Arrs Undistributed			£57							
	3959#Basic Pay	£5,807	£5,807	£5,877	£5,822	£5,822	£5,822	£6,207	£6,159	£6,159	£6,159
	Non Payroll Source	£15		£203	£191	£191	£193	£189	£191	£191	£191
	Total	£5,822	£5,807	£6,533	£6,013	£6,013	£6,015	£8,370	£6,350	£6,350	£6,350
	3006#Basic Pay Arrs							£292			
	3959#Basic Pay	£1,549	£1,549	£1,542	£678						
	Total	£1,549	£1,549	£1,542	£678			£292			
	2370#High Cost Area Fringe						£73	£72	£77	£72	
	2967#High Cost Area Arrs							£4			
	3006#Basic Pay Arrs							£80			
	3959#Basic Pay						£1,460	£1,439	£1,546	£1,431	
	Total						£1,533	£1,596	£1,623	£1,503	

Phase 2 – Budget Holder Sign Off & Comments

The Issue:

- How could we implement a system to monitor Budget Managers' review and sign-off of payroll information, such as contracted/worked whole-time equivalent (WTE)?
- This should reduce the number of salary overpayments and would help in identifying inaccuracies to ensure corrections are made promptly.

The Solution:

- Work with our BI/IT teams to implement a sign off page which is linked from the payroll listing tab on the Budget Manager application.
- The outputs from the sign off is saved to the data warehouse and a Budget Holder sign off application has been developed to monitor compliance and queries.

Phase 2 – Budget Holder Sign Off & Comments

Payroll Listing



View Instructions

Budget Manager Signoff

Budget Manager reviews the payroll listing and then clicks on red button at top of page. This launches the sign off below

ENHT Budget Holder Payroll Listing Signoff

Cost Centre 170500 Budget Holder Katrina Doyle Month Jan-2025

Auto populated. Only registered budget holder will be able to sign off

I declare that I have reviewed the payroll listing report. Any comments and discrepancies are detailed in the comments box below.

Comments

Budget Manager tick to confirm reviewed

Free text field for budget holders to highlight any queries or discrepancies

Submit

Phase 2 – Budget Manager Sign Off Application (1)

- From the Budget Manager sign off, we can review sign off compliance, by Division or individual, which is reported at monthly Divisional Finance Review meetings with the CFO.
- As well as in month, the application shows the trend by Division and Budget Manager for signing off budgets

Intro **Budget Holder Compliance** ■

Budget Holder Compliance Report

– +

Summary Compliant Non-Compliant Budget Holders

Search		Total Budget Holders	Total Budget Holders Compliant	Total Budget Holders Non Compliant	% Compliant	% Non Compliant	BH Training % Compliant
Trust Wide		396	288	108	72.7%	27.3%	57.4%
Planned Care		93	65	28	69.9%	30.1%	43.8%
Unplanned Care		93	60	33	64.5%	35.5%	69.8%
Cancer Services		63	61	2	96.8%	3.2%	69.6%
Corporate		90	59	31	65.6%	34.4%	57.1%
Women's and Children's		43	38	5	88.4%	11.6%	50.0%

Q Search

Filters

Division

Care Group

Service Line

CostCentre

CC Name

Bud Mth **Dec-24**

Signoffflag

Pay Cost Centre **Y**

Name

BH Training Comp...

Current Selections

Bud Mth ■ 2024-12-01

Pay Cost Cen... ■ ("Y")

Phase 2 – Budget Manager Sign Off Application (2)

- The free text/comments from the Budget Manager can be viewed on the sign off application.
- The management accounting team can review these comments in advance of any Budget Manager meeting and feedback at relevant meeting.
- If the Budget Manager highlights any discrepancy at draft review stage (WD1-4), then this can be corrected prior to the finalisation of position.

Summary Compliant Non-Compliant Budget Holders							
Signoff Flag							
Signoff Date	BudgetHolder	CostCentre	CC Name	Bud Mth	Comments	Signoff Flag	
06/01/2025 16:50:50		170173	Ambulatory Care QE2	Dec-24		Yes	Yes
10/01/2025 13:21:23		170160	Ward 8B North	Dec-24	This is a closed ward and has no allocated staff. Payroll costs are rapid re...	Yes	Yes
11/02/2025 09:39:09		170160	Ward 8B North	Dec-24	Staff cost is bank duty matron cover for short term sickness as there is n...	Yes	Yes
16/01/2025 23:05:17		170168	AMU1	Dec-24	32911678 is listed as a grade 4 - What does this mean? should be a ban...	Yes	Yes
16/01/2025 23:06:27		170169	Short Stay Unit - SSU	Dec-24	To be merged with cost centre 170168	Yes	Yes
03/01/2025 14:25:57		170013	Acute Medicine Admin	Dec-24		Yes	Yes
17/01/2025 13:27:16		170170	SDEC Lister	Dec-24	SUBJECTIVE CODE 5111 MAINTENANCE STAFF ASC GRADE 4 M MCHLVD...	Yes	Yes

Budget Manager App – Moving to Power BI

Budget Manager Power BI

- Maintain all key features from Qlikview application
- To be tested in March 2025 and feedback obtained from Budget Managers
- Budget Manager Power BI launched from month 1 reporting

Key Developments for Power BI App:

- Introduce a Dashboard
- Allow Budget Managers to have an overview, and drill down, of all budgets combined (not just single cost centre)
- Combine existing Budget Manager and Budget Sign off Apps
- Include position against forecast, as well as budget
- Include reasons for temporary staffing bookings

Budget Manager App – DRAFT Dashboard

Updated 11/09/2024 12:00

Budget Manager App

Fiscal Year

Fiscal Period Number

Division

Care Group, Service Line

Cost Centre Name, No.

Ward Flag

Pay/Non Pay/Income

Subj Category

Bank/Agency/Substantive

Account Name, No.

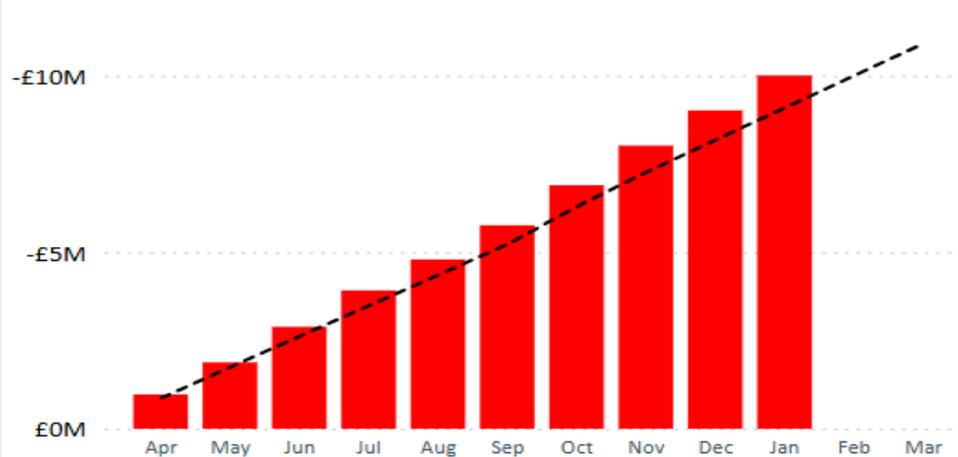
Analysis 1 Name, No.

Analysis 2 Name, No.

Budget vs Actual Spend



Cumulative Budget vs Actual Spend



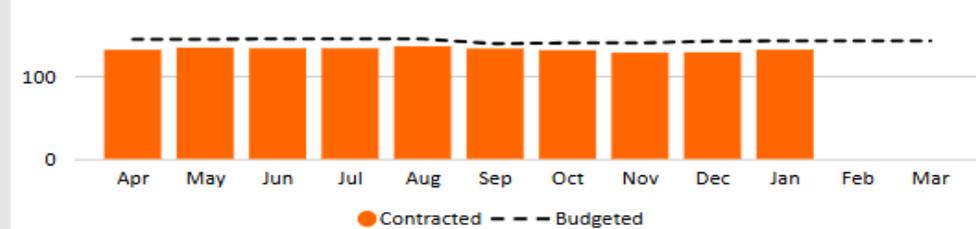
Variance from Budget



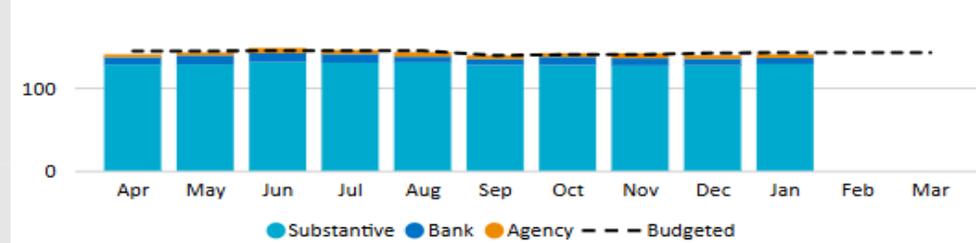
Cost Centre Name

Cost Centre Name	YTD Variance
Cardiology Physiologists	-£364,897
Cardiology	-£233,563
Acute Cardiac Unit	-£161,877
Cardiology Radiographers	-£103,421
Cardiology Administration	-£49,694
Cardiology Outpatient Admin	-£1,538
Total	-£914,990

Funded vs Contracted WTE



Funded vs Worked WTE



Budget Manager App – DRAFT Budget Statement Overview

- Budget Manager can review overall position for all Budgets within their remit. Can drill down by Cost Centre or Expenditure type

Budget Manager App											Updated 11/09/2024 12:00
Fiscal Year	-£78K		-£915K		£7,060		131.63		8.21		
2025	In Month Variance		YTD Variance		Monthly Movement		Contracted WTE		Recruitable Vacancy		
Fiscal Period Number											
10											
Division											
All											
Care Group, Service Line											
CG02-Acute (Care Group) + Cardiol...											
Cost Centre Name, No.											
Multiple selections											
Ward Flag											
All											
Pay/Non Pay/Income											
All											
Cost Centre Name	Funded WTE	Contracted WTE	Worked WTE	Annual Budget	In Month Budget	In Month Actual	In Month Variance	YTD Budget	YTD Actual	YTD Variance	
Cardiology Radiographers	5.70	4.70	6.49	-£359,923	-£29,994	-£42,316	-£12,322	-£299,936	-£403,357	-£103,421	
Cardiology Physiologists	49.18	42.72	44.89	-£3,144,429	-£261,954	-£295,895	-£33,941	-£2,620,521	-£2,985,418	-£364,897	
Cardiology Outpatient Admin	0.00	0.00	0.13	£0	£0	-£1,472	-£1,472	£0	-£1,538	-£1,538	
Cardiology Administration	20.15	20.00	21.19	-£633,414	-£52,784	-£59,056	-£6,272	-£527,845	-£577,539	-£49,694	
Cardiology	27.61	28.25	27.55	-£4,901,000	-£410,134	-£412,777	-£2,643	-£4,080,731	-£4,314,294	-£233,563	
Acute Cardiac Unit	39.49	35.96	40.01	-£1,877,895	-£156,491	-£177,976	-£21,485	-£1,564,912	-£1,726,790	-£161,877	
Total	142.13	131.63	140.26	-£10,916,661	-£911,358	-£989,493	-£78,135	-£9,093,945	£10,008,935	-£914,990	

Questions and Contact Details

- Any Questions?

- **Contact Details:**

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