NHS Lothian

Internal Audit 2024/25

Discrepancies between HealthRoster and SSTS

August 2024

FINAL REPORT

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- Jim Crombie – Interim Chief Executive

- Audit and Risk Committee

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Executive summary

Background

In 2023, two identical and anonymous letters were received by the Associate Nurse Director at the Royal Infirmary of Edinburgh with the allegation that staff were not receiving the correct pay due to rostering practices. As a result, an investigation was undertaken by NHS Lothian which reviewed the way individuals were being remunerated against what was recorded within the system, which identified several issues including retrospective changes to data and mismatching in coding, both of which had financial consequences.

Where staff are required to work to cover services in the evening, at night, over weekends and on public holidays, the NHS Staff Council agreed that they should receive unsocial hours payments as part of the Agenda for Change Terms and Conditions.

At times, staff may be asked to come off their set rota shifts and swap to another shift. This may be due to ward demands, staff sickness or to ensure adequate skill mixes. To protect staff from losing out financially, if they are asked to change from their planned fixed rota shift that would have incurred unsocial hours payment to an alternative shift that would not, staff should receive the pay as per their fixed rota. This custom and practice was confirmed to have been agreed by the sites local Partnership Lead more than 10 years ago.

Within NHS Lothian, there is currently no link or interface between the HealthRoster system and SSTS. Therefore, SSTS is required to be manually updated to ensure staff are paid correctly. To assist in this process, a team of SSTS Data Assistants is employed to support with the double keying input from HealthRoster to SSTS. However, the use of Data Assistants varied across the organisation prior to the investigation, with some departments opting not to accept this administrative support and opted to maintain SSTS within their own departments.

Since the investigation, NHS Lothian has made changes to the use of Data Assistants. Due to the number of Data Assistants available, it is not possible to transfer all rosters to the oversight of this team. Therefore, NHS Lothian has opted initially to transfer all 24/7 rosters. Other areas, which includes district nursing, remain within the relevant departments.

Executive summary

Objectives

The objective of this review was to provide an independent assessment of the design and operational effectiveness of the controls in place to ensure there are no discrepancies arising between the HealthRoster and SSTS systems.

Limitations in scope

Our findings and conclusions will be limited to the risks identified above. The scope of this audit does not allow us to provide an independent assessment of all risks and controls linked to the Discrepancies Between HealthRoster and SSTS review.

Where sample testing is undertaken, our findings and conclusions will be limited to the sample tested only. Please note that there is a risk that our findings and conclusions based on the sample may differ from the findings and conclusions we would reach if we tested the entire population from which the sample is taken.

This report does not constitute an assurance engagement as set out under ISAE 3000.

Acknowledgement

We would like to take this opportunity to thank your staff for their co-operation during this internal audit.

Headline messages

Moderate Assurance

We have completed our assessment of the design and operational effectiveness of the controls in place to ensure there are no discrepancies arising between the HealthRoster and SSTS systems and have concluded that the processes have provided **Moderate Assurance.** This was confirmed through sample testing, review of documentation and through discussions with management.

We have provided 'Moderate Assurance' based on our findings, indicating that the controls upon which the organisation relies are suitably designed and mostly effectively applied. However, a moderate amount of residual risk remains.

The review has noted the documented guidance that is in place and available for staff to use, which includes comprehensive training materials, is utilised by Data Assistants operating out of the eRostering Team. Ward and department staff are also able to access guidance for the steps to be followed in ensuring that shifts are accurately recorded and finalised prior to entry onto SSTS.

However, our review and sample testing has noted that there are discrepancies between HealthRoster and SSTS routinely occurring. The number of discrepancies arising increase where this sits within the local team rather than with the Data Assistants and management should seek to develop the Central Data Assistants team to transfer the responsibility for inputting from local teams.

Additionally, we have also noted that shifts are not being finalised promptly in HealthRoster prior to entry onto SSTS by the eRostering Data Assistants. There is a risk that if data is not finalised, changes can be made locally which could have a financial implications for the Board and this brings opportunities for manipulation.

Discrepancies identified through the data transfer process are recorded within a queries log however, it was noted that queries were marked as resolved despite no confirmation being received that the necessary adjustments had been made. Fundamentally, this indicates that queries are being closed without proper resolution which could result in inappropriate payments being made.

There are weaknesses in the controls as identified above that could have a financial impact on the Board and these should be addressed as soon as practically possible.

We will review progress made as part of our recommendation tracking during 2024/25.
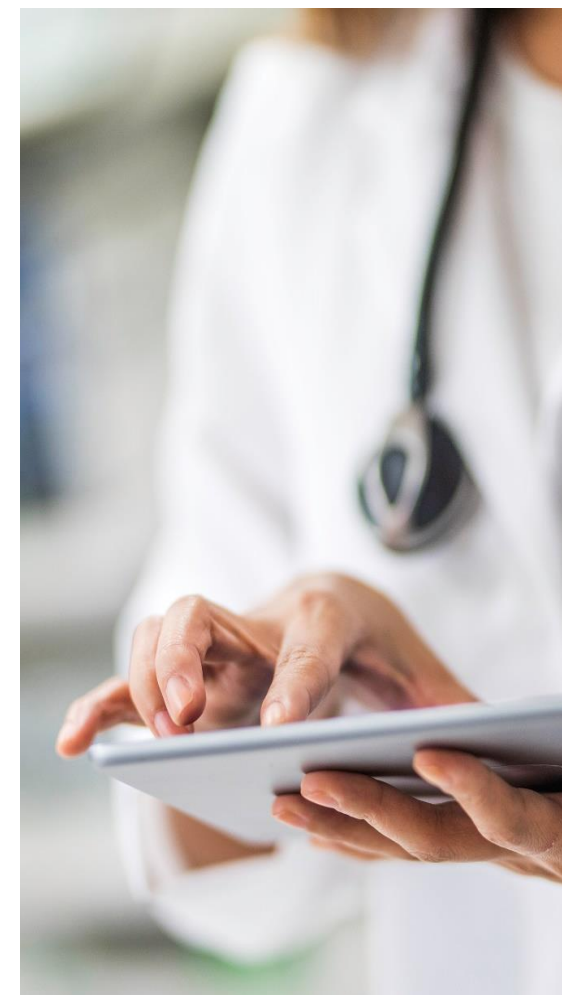
Headline messages

Conclusion

We have raised six recommendations. The grading of these recommendations, based on risk, is summarised in the table below.

Objectives	Assurance rating	Number of recommendations			
		High	Medium	Low	Imp
The formal procedure for recoding data between HealthRoster and SSTS has not been documented and communicated to relevant individuals involved with the process.	Significant Assurance	-	-	-	-
There is a lack of robust governance arrangements in place, including clearly defined roles and responsibilities and training for Data Assistants and department staff involved in maintaining SSTS.	Significant Assurance	-	-	-	-
There are discrepancies between the HealthRoster and SSTS systems resulting in inconsistent remuneration across the Health Board.	Moderate Assurance	-	2	1	-
There is a lack of regular monitoring or reporting of discrepancies between HealthRoster and SSTS which results in errors and unauthorised retrospective data changes being made.	Moderate Assurance	-	1	2	-

Summary of findings

Examples of where recommended practices are being applied

- Documented procedures are in place and includes a user guide for data processing staff within the eRostering Team. This supports the team's aim to transfer accurate and timely input data from Allocate Optima (HealthRoster) to SSTS. Procedures are also in place for staff at department/ward level to follow in ensuring the shifts are finalised promptly in HealthRoster prior to transfer to SSTS.

- All documented policies and procedures are available either through the NHS Lothian intranet (for those procedures to be followed by staff within wards and departments), or through the eRostering Team's shared drive (as part of the department's training materials).

- All policies and procedures clearly state the roles and responsibilities of all staff, including those of Managers/Charge Nurses at ward/department level, and Data Assistants within the eRostering Team.

- Each month a spreadsheet is issued to eRostering Data Assistants staff with the workload for the coming month. Staff enter their initials when an input for a particular week has been carried out and checking initials are also entered so that management can identify when a review has been completed.

- A queries spreadsheet is maintained by the Systems Support Team (SST) Team Lead within eRostering which records all unresolved/unactioned queries, alongside those queries that have been resolved.

- The SST Team Lead runs a report via excel every quarter to identify the number of queries by area and type of query.

Summary of findings

Areas Requiring Improvement

- Discrepancies between HealthRoster and SSTS continue to occur, with the majority noted where both systems are updated locally by clinical wards/department (nearly double the error rate in our sample tested) which presents a continuing risk of incorrect staff remuneration.

- To further reduce or prevent inconsistencies, management should continue to transfer clinical ward or department inputting to eRostering and Data Assistants as capacity allows, where there is greater scrutiny and therefore accuracy of entries to Health Roster and SSTS.

- Staff within wards or departments should be encouraged to finalise the entries in HealthRoster in line with the timeline used by the Data Assistants for transferring the data to SSTS. More timely transfer of data will reduce the risk of unauthorised retrospective changes to staff rosters.

- The process in place for recording and following-up queries identified by Data Assistants should be further enhanced to chase up where they have been outstanding for some time and remain unresolved. In addition to the routine reporting of queries, any patterns should be identified for unresolved queries to help identify and address underlying causes.

- All queries should be marked as resolved in the queries spreadsheet only once there has been confirmation that they have been addressed by the Charge Nurse/Manager and conformation obtained of this.

Detailed findings and action plan

3.1	Moderate Assurance	There are discrepancies between the HealthRoster and SSTS systems resulting in inconsistent remuneration across the Health Board.

Finding and implication	Audit recommendation	Management response, including actions
Discrepancies are routinely occurring between HealthRoster and SSTS 40 employees were selected from a population of 11,941, 20 where data is transferred into SSTS from HealthRoster centrally by Data Assistants and 20 where data is entered into HealthRoster and SSTS locally (65 locations). We reviewed information for the months of April and May 2024 (1,260 days in total). • Data Assistant inputting – 1,177 days had been accurately and correctly recorded in both HealthRoster and SSTS. However, discrepancies were noted between HealthRoster and SSTS for 13 employees, covering 85 days (93% compliance). • Local inputting – 1,141 days had been accurately and correctly recorded in both HealthRoster and SSTS. However, discrepancies were noted between HealthRoster and SSTS for 16 employees, covering 151 days (88% compliance). The majority of discrepancies found related to the incorrect application of time arising from a reduced working week (50%), with discrepancies in shift times and/or coding accounting for 28% of the discrepancies noted. Financial analysis confirms that the majority of discrepancies identified resulted in no impact on remuneration as the contracted hours had still been met with no enhancements. In one instance, a credit of an additional 30 minutes in SSTS on a Saturday would have resulted in a small overpayment. Two further instances were noted where one employee had call out shifts recorded in SSTS though not in HealthRoster. Summarised findings and types of discrepancies noted have been provided in the table included as Appendix 1 in this report.	**Recommendation 1** Guidance and training should continue to be offered and provided to staff where data is entered into HealthRoster and SSTS locally. There should be a particular focus on the correct methodology for applying the necessary adjustments within SSTS to account for the reduced working week.	**Actions:** Responsibility for supporting staff on the accuracy of data locally sits with NHS Lothian's Payroll SSTS Team. They provide routine training and have previously issued guidance on the implementation of the reduced working week. Training will continue to be delivered upon request, alongside the routine issue of written guidance to all staff responsible for entering data into SSTS. **Responsible Officer:** Payroll Manager - Payroll **Executive Lead:** Director of Finance & Deputy Director of Nursing **Due Date:** 31 March 2024
	Recommendation 2 To improve the accuracy of data inputting, Management should seek to develop the capacity within the Central Data Assistant team and transfer the responsibility for inputting from local teams in a managed and timely way.	**Actions:** Management accept the audit finding and recommendation. The eRostering System Specialist monitors current capacity within the team and works to a 3-6 months plan on handover dates of SSTS to the Data Assistant Team. Management will continue to progress handover to eRostering Data Assistants, addressing additional staffing requirements to ensure capacity **Responsible Officer:** eRostering Operational Manager **Executive Lead:** Director of Finance & Deputy Director of Nursing **Due Date:** 28 February 2025

Detailed findings and action plan

3.2	Moderate Assurance	There are discrepancies between the HealthRoster and SSTS systems resulting in inconsistent remuneration across the Health Board.

Finding and implication	Audit recommendation	Management response, including actions
Shifts are not finalised on HealthRoster prior to upload to SSTS Each month, a workload spreadsheet is issued to Data Assistants within eRostering with the SSTS input workload for the coming month. On the workload spreadsheet, each Data Assistant is required to enter their initials when an input for that week has been carried out and checking initials are then entered so that management can know when a review has been completed for the week. The checking spreadsheets from March, April and May 2024 were received and reviewed for completion. While it was evidenced that all had been initialled by the Data Assistant and reviewed, it was noted that a number of weekly Rosters hadn't been finalised within HealthRoster for the month prior to input and checking, which is required by guidance. According to the guidance for Charge Nurses and Managers, HealthRoster should be verified as being correct by 'finalising' the shift. The cut off deadlines for finalising are as follows: • On the week of the SSTS deadline the previous weeks shifts must be finalised by end of day Monday • On all other weeks the previous week's shifts must be finalised by the end of day Tuesday We identified the following examples listed below: • March 2024 (week 1) – 284 rosters not finalised from 437 (65%) • April 2024 (week 1) – 332 rosters not finalised from 487 (68%) • May 2024 (week 1) – 367 rosters not finalised from 508 (72%) Once a shift is finalised within HealthRoster, staff are unable to make retrospective changes to the shift without assistance from staff within eRostering. There is a risk if data is not finalised, changes can be made locally resulting in financial implications to the Board and opportunities for manipulation.	**Recommendation 3** Charge Nurses and Managers should be reminded that all shifts should be finalised in HealthRoster before the deadline for entering data into SSTS. Additionally, a review should be introduced to monitor the completion of shifts being finalised, with a trend analysis completed to understand where consistent issues arise. This will help to identify non-compliance which can be used to target for improvement or inform which teams are transferred to the central team earlier.	**Actions:** Management accept the audit finding and recommendation. Charge Nurses and Managers will be reminded of the requirement to finalise shifts in Health Roster, as per the guidance. A review report quality improvement project within the eRostering Team will be established to identify those departments who routinely fail to finalise their shifts in HealthRoster. Providing additional support or guidance where necessary. **Responsible Officer:** eRostering Operational Manager **Executive Lead:** Director of Finance & Deputy Director of Nursing **Due Date:** 28 February 2025

Detailed findings and action plan

4.1	Significant Assurance	There is a lack of regular monitoring or reporting of discrepancies between HealthRoster and SSTS which results in errors and unauthorised retrospective data changes being made.

Finding and implication	Audit recommendation	Management response, including actions
Discrepancy queries are not properly closed off or within reasonable timeframe Discrepancies identified through the data transfer process are raised with the Team Lead in the System Support Team (SST) being taken forward as a query for resolution. The queries spreadsheet records all unresolved/unactioned queries, with a record of those subsequently resolved. The SST Team Lead and eRostering Systems Specialist will routinely discuss any common themes and areas of concerns and these are raised to the Area Support Managers to identify if additional roster training is required to reduce discrepancies between the two systems. The content of the query spreadsheet is not reported outside of the department. Review of the queries spreadsheet has identified 181 live queries (i.e. those that have yet to be investigated) from 3 March 2024 to 26 Jun 2024, with 82 of these up until 31 May 2024. As part of the process, the SST Team Lead will first check that the query has not already been resolved and if not, an email is sent out to the relevant parties. This work runs alongside other inputting responsibilities which can result in some queries sitting open for weeks. The SST Team Lead also runs a report via excel every quarter to identify the number of queries by area and type of query. However, this is for local monitoring only and is not reported elsewhere.	**Recommendation 4** Staff within eRostering should introduce additional controls to monitor all outstanding/unresolved queries within an agreed timescale including providing a date by which they are required to be resolved by and raise these with the relevant Charge Nurses/Managers.	**Actions:** Management accept the audit finding and recommendation. The Team Lead in the System Support Team is now in a role where their main focus is specifically SSTS data transfer and queries. Once their previous role is filled, all outstanding/unresolved queries will be closely monitored, with timescales on resolutions set and routinely checked/closed off. **Responsible Officer:** eRostering Operational Manager **Executive Lead:** Director of Finance & Deputy Director of Nursing **Due Date:** 28 February 2025
	Recommendation 5 The local analysis of query type and area should be developed into a formal report for distribution to the appropriate Area Managers and reviewed on a regular basis to identify key trends and areas for improvement.	**Actions:** Management accept the audit finding and recommendation. As per Recommendation 4, an action will be agreed with the SSTS Team Lead within eRostering to develop reports to identify key trends and areas for improvement, along with set monthly meetings with Area Support Managers to review those departments with areas of concern. **Responsible Officer:** eRostering Operational Manager **Executive Lead:** Director of Finance & Deputy Director of Nursing **Due Date:** 28 February 2025

Detailed findings and action plan

4.2	Moderate Assurance	There is a lack of regular monitoring or reporting of discrepancies between HealthRoster and SSTS which results in errors and unauthorised retrospective data changes being made.

Finding and implication	Audit recommendation	Management response, including actions
Queries were marked as resolved despite no confirmation of necessary adjustments being made. A sample of 15 resolved queries within the spreadsheet were tested to confirm to underlying evidence that they had been appropriately resolved and relevant action taken. Of the 15 reviewed, for three that were recorded as resolved, an email had been issued advising the Charge Nurse/Manager of the discrepancy. However, no confirmation had been received or evidence obtained to confirm that the necessary adjustment had been made. Despite this, the queries had been marked as closed on the day that the email had been sent out by the SST Team Lead. This indicates that queries are being closed without proper resolution which may allow for inappropriate payments to be made.	**Recommendation 6** Staff within eRostering should update the queries spreadsheet to record when the initial notification had been made, with an additional column to record confirmation that the query had been addressed to ensure all issues have been appropriately actioned.	**Actions:** Management accept the audit finding and recommendation. As per Recommendation 4, the Team Lead in the System Support Team is now in a role where their main focus is specifically SSTS data transfer and queries. The queries spreadsheet will be updated to ensure that all queries are recorded as closed only once evidence has been provide or obtained to demonstrates this. **Responsible Officer:** eRostering Operational Manager **Executive Lead:** Director of Finance & Deputy Director of Nursing **Due Date:** 28 February 2025

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Appendices

Appendix 1:
Summary of Discrepancies Noted

	Input by Data Assistants	Input by Ward/Department
Day Off on SSTS – Shift Worked in HealthRoster	6	5
Shift Worked in SSTS – No Hours in Health Roster	5	4
Discrepancy Resulting from Incorrect Application of Revised Working Week	22	98
Shift Times and Coding do not Match between SSTS and HealthRoster	31	38
Day OFF in HealthRoster – Shift Worked in SSTS	6	-
Unknown Absence in Health Roster not in SSTS	2	-
Annual Leave Hours Incorrect in HealthRoster	5	-
Shift Worked in HealthRoster – No Hours in SSTS	1	2
HealthRoster Blank	7	-
Health Roster Blank – Public Holiday in SSTS	-	2
No call out hours recorded in Health Roster	-	2

Appendix 2:
Staff involved and documents reviewed

Staff involved

- Scott Brand, eRostering Systems Specialist
- Kevin McCann, Systems Support Team – Team Lead

Documents and Systems Reviewed

- Allocate Optima (HealthRoster)
- SSTS
- Data Transfer from Health Roster to SSTS guidance
- eRostering Data Assistants Training Materials:
  - User Guide for Data Processing Within eRostering Team
  - How to Enter Shifts in SSTS for eRostering Team
  - How to enter absence in SSTS for eRostering Team
  - How to Check Data in SSTS for eRostering Team
- Standard Operating Procedures
- New Queries Spreadsheet
- Emails from System Support Team – Team Lead re queries
- Screenshots from Health Roster/SSTS
- Excel Spreadsheet analysis of Query Type
- Data Transfer Spreadsheets used by Data Assistants

Appendix 3:
Our assurance levels

The table below shows the levels of assurance we provide and guidelines for how these are arrived at. We always exercise professional judgement in determining assignment assurance levels, reflective of the circumstances of each individual assignment.

Rating	Description
Significant Assurance	The Board can take reasonable assurance that the system(s) of control achieves or will achieve the control objective. There may be an insignificant amount of residual risk or none at all. There is little evidence of system failure and the system appears to be robust and sustainable. The controls adequately mitigate the risk, or weaknesses are only minor (for instance a low number of findings which are all rated as 'low' or no findings)
Moderate Assurance	The Board can take reasonable assurance that controls upon which the organisation relies to achieve the control objective are in the main suitably designed and effectively applied. There remains a moderate amount of residual risk. In most respects the "purpose" is being achieved. There are some areas where further action is required, and the residual risk is greater than "insignificant". The controls are largely effective and in most respects achieve their purpose with a limited number of findings which require management action (for instance a mix of 'medium' findings and 'low' findings)
Limited Assurance	The Board can take some assurance from the systems of control in place to achieve the control objective, but there remains a significant amount of residual risk which requires action to be taken. This may be used when: • There are known material weaknesses in key control areas. • It is known that there will have to be changes that are relevant to the control objective (e.g. due to a change in the law) and the impact has not been assessed and planned for. The controls are deficient in some aspects and require management action (for instance one 'high' finding and a number of other lower rated findings)
No assurance	The Board cannot take any assurance from the audit findings. There remains a significant amount of residual risk. The controls are not adequately designed and / or operating effectively and immediate management action is required as there remains a significant amount of residual risk (for instance a number of HIGH rated recommendations)

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Appendix 3:
Our recommendation ratings

The table below describes how we grade our audit recommendations based on risks:

Rating	Description	Possible features
High	Findings that are fundamental to the management of risk in the business area, representing a weakness in the design or application of activities or control that requires the immediate attention of management	• Key activity or control not designed or operating effectively • Potential for fraud identified • Non-compliance with key procedures/standards • Non-compliance with regulation
Medium	Findings that are important to the management of risk in the business area, representing a moderate weakness in the design or application of activities or control that requires the immediate attention of management	• Important activity or control not designed or operating effectively • Impact is contained within the department and compensating controls would detect errors • Possibility for fraud exists • Control failures identified but not in key controls • Non-compliance with procedures/standards (but not resulting in key control failure)
Low	Findings that identify non-compliance with established procedures, or which identify changes that could improve the efficiency and/or effectiveness of the activity or control but which are not vital to the management of risk in the business area.	• Minor control design or operational weakness • Minor non-compliance with procedures/standards
Improvement	Items requiring no action but which may be of interest to management or which represent best practice advice	• Information for management • Control operating but not necessarily in accordance with best practice

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