

FTF Internal Audit Service

Data Quality

Report No. AN06/20

Issued To: G Smith, Interim Chief Officer
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[Angus Integration Joint Board]
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Draft Report Issued	10 August 2020
Management Responses Received	13 August 2020 (interim)
Target Audit & Risk Committee Date	26 August 2020
Final Report Issued	14 August 2020 (Draft final)

CONTEXT AND SCOPE

1. The 2019/20 annual internal audit plan included a review of Data Quality - Accuracy of data used for strategic and operational (including financial) planning, management and performance monitoring).
2. Public services need reliable, accurate and timely information with which to manage services, inform users and account for performance. Clinical and Care Managers make many, often complex, decisions about priorities and the use of resources. Clinical and Care Managers, Service planners, Service users and members of the public more widely, need accessible information to make informed decisions. Regulators and government departments need information to satisfy their responsibilities for making judgements about performance and governance.
3. In common with all public sector organisations, the IJB and its partners invest a significant level of resources in the activities and systems for collecting and analysing the data which underpins performance and management information. Good quality data is essential for the provision of performance and financial information to support decision making. The data used to report on performance must be fit for purpose, and reflect the organisation's activity in an accurate and timely manner. At the same time, there must be a balance between the use and importance of the information and the cost of collecting the required data to the necessary level of accuracy.
4. The importance of reliable, good quality data is fundamental for the safe care and effective treatment of service users and the on-going development and planning of services.
5. At the request of management, the scope of this review was to evaluate and report on the completeness and accuracy of data on Adult Social Care held in the CareFirst system. The review considered whether proper corporate management arrangements for data quality were in place, and applied in practice. As management did not raise issues or concerns relating to any NHS system, the review focussed on CareFirst only.
6. The Adult Social Care sector currently uses Carefirst; this is to be replaced with the Eclipse system as part of a larger Angus Council project. Phase one of the Eclipse project covered the Children and Families sector and was concluded in June 2019. Implementation of the Eclipse system for Older People was ongoing at the time of our audit. Issues highlighted during the cleansing of data in the Carefirst system in phase one of the move to Eclipse, lessons learned from the project and issues highlighted in the error and missing data reports have been used to inform the Eclipse project.
7. To inform the set up of the system, the Eclipse working group is working with teams from across the HSCP to identify where data originates from and what it is needed for. This is fed into the Eclipse Project team.

8. The specific objectives of this review were to determine whether:
 1. Adequate arrangements are in place for the governance, monitoring and review of data quality, and a data quality strategy is in place.
 2. Adequate controls are in place to ensure quality data input and prevent errors/omissions
 3. Adequate controls are in place to review and verify data quality to enable the detection of errors and omissions which occur, and what action is taken to address them
 4. Responsibility for data quality is made explicit for all relevant staff, and staff are fully aware of how the data they collate/input is used, as well as the importance of complete and accurate data and the implications of poor quality data input.
 5. Lessons identified from initial data cleansing work on the Care First system to prepare for Phase 1 of migration to Eclipse have been documented and appropriate actions implemented.
 6. Adequate processes are in place for the timely transfer of relevant data on individual cases between health and social care systems.
 7. Data is fit for use in other domains e.g. to provide performance info, approve cost commitments (invoice approvals), support resource planning.
 8. Ensuring activity and financial data are meaningfully reconcilable.


9. The Angus Health and Social Care Partnership (AHSCP) sets out the vision for change and improvement in its strategic plan. The plan set out four strategic priorities through which change and improvement would be delivered.
 - Priority 1: Improving Health, Wellbeing and Independence
 - Priority 2: Supporting care needs at Home
 - Priority 3: Developing integrated and enhanced Primary care and community responses
 - Priority 4: Improving Integrated care pathways for priorities in care.

10. Below the strategic plan, the Angus Care Model and the Improvement and Change programme encompass the majority of plans to effect change to deliver these priorities.

11. We would highlight that this review was undertaken before the impact of the Covid 19 pandemic could be assessed. It is our view that there will need to be a fundamental review of the assumptions underlying the Strategic Plan and all supporting strategies which makes the need for high-quality real-time data even more urgent.

AUDIT OPINION

12. The Audit Opinion of the level of assurance is as follows:

Level of Assurance		System Adequacy	Controls
Comprehensive Assurance		Robust framework of key controls ensure objectives are likely to be achieved.	Controls are applied continuously or with only minor lapses.

13. A description of all audit opinion categories is given in the final section of this report

ACKNOWLEDGEMENT

14. We would like to thank all members of staff for the help and co-operation received during the course of the audit.

A Gaskin BSc. ACA
Chief Internal Auditor

Action Point Reference 1**Finding:**

Although outwith the scope of this audit, we consider that currently the lack of integrated or shared use of systems, both for clinical / care use and corporate / admin use, impacts on the level of integration that can be achieved by operational teams. Therefore, further commitment is needed to work towards integrated/ shared use of required IT systems across Tayside.

All relevant staff do not have laptops which would enable them to enter data when they make their visits. Therefore, data entry is completed in the office after the event.

This presents a risk of inaccuracy or omission of data, as well as having an impact on available staff time.


We would highlight that this review was undertaken before the impact of the Covid 19 pandemic could be assessed. The recommended fundamental review of the assumptions underlying the Strategic Plan and all supporting strategies will include the IT Strategies of the IJB's partners.

Audit Recommendation:

Action is required to ensure that the needs of all parties (NHST, Local Authority and IJB) are considered when key IT development decisions are being taken and any IT problems that arise due to the unique circumstances of an H&SCP can be discussed and resolved timeously. In addition, the possibility of interfaces sharing information between systems should be explored. As part of an internal audit report for Dundee IJB (D04/19 Information Technology and Governance as enablers of integration) an action was agreed that 2 out of the 4 meetings per year of the Workplace Enablement (WPE) group which has a remit in relation to this work were to include Angus and P&K representation. We would encourage active participation in this work.

As part of the review of the partners' IT strategies, the IJB should consider whether investment in laptops for staff would increase efficiency and provide value for money.

Assessment of Risk:

Merits attention		There are generally areas of good practice. Action may be advised to enhance control or improve operational efficiency.
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Management Response/Action:

The Partnership will review opportunities for improvement with regard to Information Technology. This will include considering interfaces between systems and reviewing the options to work Partners and neighbouring IJBs and reviewing opportunities for further investment in lap tops(noting there has been increased investment due to COVID-19).

Action by:**Date of expected completion:**

Chief Officer

March 2021

Action Point Reference 2		
Finding:		
<p>At the time of our fieldwork, work was ongoing to improve the reconciliation of finance and activity information and to progress the implementation of new Home Care contract management systems. In both cases, due to timing, it was not possible for us to assess the progress of this work.</p> <p>In addition, recent changes to staffing may impact on data quality going forward.</p>		
Audit Recommendation:		
<p>We would therefore recommend that the HSCP receives updates on the progress of both the reconciliation of finance and activity information and the implementation of the Home Care contract monitoring system as well as assurance on staffing capacity to ensure current controls will remain ongoing.</p>		
Assessment of Risk:		
Merits attention		<p>There are generally areas of good practice.</p> <p>Action may be advised to enhance control or improve operational efficiency.</p>
Management Response/Action:		
<p>The Partnership will continue to progress the work to systematically reconcile finance and activity information.</p> <p>The Partnership will progress the implementation of the Home Care Contract Monitoring system to support invoicing and improved data quality.</p> <p>The Partnership will ensure clear responsibilities for data quality after recent staff turnover.</p>		
Action by:	Date of expected completion:	
1) Chief Finance Officer 2) Head of Service (North) 3) Chief Officer	1) March 2021 2) March 2021 3) December 2020	

Controls 1 to 4

- **Governance, monitoring and review of data quality, including a data quality strategy**
- **Explicit responsibility and awareness of the importance of data quality and the implications of poor quality data input**
- **Controls to ensure quality data input, detect errors and prevent and address errors/omissions.**

15. Managers use data reports to enable performance monitoring, identify priorities, plan services, budgets and reduce costs. The Angus Council Performance team produces a suite of monthly reports which include several on quality of data. This includes a Data Omissions report, an Adult Services Data Quality Progress report and a Missing Core Data report by team. Measures monitored through this reporting include the number of observations marked as incomplete within Carefirst.
16. Reports are sent to care managers for review and managers then send the reports to the care workers or administration staff who update and correct the data on the system. Where there is a high incidence of errors or omissions of data in one section, HQ staff are released to physically check records at source and input data to the system to ensure it is complete.
17. The Head of Community Health and Care Services also receives monthly reports on missing and incorrect data e.g. missing date of birth, client information and incomplete assessments and observations.
18. We were informed by the Head of Community Health and Care Services that there has been a definite improvement in data quality with a reduction in missing core data from 45% in June 2019 to 14% in October 2019. The Principal Planning officers informed us that the controls put in place and the increased management focus on data quality in the system have been successful. As well as review of the monthly report where consistent errors in an area are identified, the performance team send out weekly exception reports until the matter is resolved. The Performance team will continue to send data quality reports to managers after the move to Eclipse. We would strongly encourage this.
19. Data Quality is a standing item on senior management team agendas and the Performance team give a report on data quality at each meeting. KPIs are also discussed.
20. Although there is no data quality strategy in place, there is an AHSCP Quality Assurance Framework guidance document which includes guidance in relation to Information Governance and compliance with case recording policies and standards for all AHSCP staff. This includes data being complete and up to date. A percentage of case files are audited against these policies and standards. It is anticipated that implementation of the new Eclipse system should further reduce errors and omissions and improve data quality through its dropdown menu set up and controls in relation to missing data being built in.

21. We interviewed staff from application support, the Eclipse project team, Older People, Learning & Physical disabilities, Administrative staff, home care assessor staff, occupational therapy, mental health officer staff and staff from the Performance team and all staff consulted were aware of the need for good data quality.
22. All HSCP staff were invited to workshops from December 2019 onwards to discuss the current documentation, forms and processes used across the teams who will be using the Eclipse system to ensure the system is fit for purpose and to provide an opportunity to improve current processes. The following 5 areas were covered:
 - Referral, assessment and enablement;
 - Carers assessment and review, support plan, support request, RAS and authorisation;
 - Adult support and protection, Adults with Incapacity and Statutory Mental Health;
 - Occupational therapy and Telerate;
 - Homelessness Support Service and others.
23. On 13 September 2019, the Head of Community Health and Care Services instructed all managers to correct omissions and errors by Friday 11 October 2019 and offered protected administration and care worker time to tackle the backlog.
24. The Head of Community Health and Care Services correspondence noted that non-compliance and data gaps present a risk to the business and made aware of the implications of poor quality data.
25. The requirement for all staff within Adult Services to maintain a focus on data quality and make sure that records are up to date, having all the required information, with assessments, forms and service agreements recorded on the system correctly and closed off in a timely manner was emphasised.
26. We note that the HSCP's Information Systems and Performance Officer has recently left his post. Assurance should be provided that the remit for data quality will continue to be fulfilled.

Control 5

- **Lessons identified from initial data cleansing work on the Care First system**
- **Phase 1 of migration to Eclipse**

27. The lessons learned log from the Children and Families phase of the Eclipse project was reported to the Project Board on 3 January 2020 and is being used to inform the Older People's phase of the Eclipse project.
28. As described above, the Eclipse project team have identified where errors were occurring in the Carefirst system and have built in controls to help prevent omissions and reduce errors. Eclipse is checklist driven and, based on the lessons learned from phase 1 of the project, the system it has drop down menus to reduce the instances of incorrect data

being input) and all fields have to be completed before being able to move to the next, although it is possible to input 'not known'.

29. The Eclipse working group is comprised of teams and groups from all areas of the Older People sector. The work of this group includes review of where the core data comes from and what it is needed to ensure data quality, with officers consulted on the reports needed.
30. The monthly reports on omissions and incorrect data began after the issues highlighted through the initial data cleansing work.
31. Staff have been reminded to keep the focus on data quality and make sure records are kept up-to-date, have all the required information, assessments and forms are closed off in a timely manner and service agreements are on the system correctly and in a timely manner.
32. One of the lessons learned was that there was not enough time given for user acceptance testing. A more detailed and robust approach to user testing has been taken for the transfer of the Older People service to the Eclipse system. We would note that this project was undertaken by Angus Council and is out with the scope of this audit.
33. A group of 'super users' is to be developed for Eclipse to support training, there is a Change Board that reviews all changes to processes to ensure good governance.
34. The approach to user acceptance testing has been reported to the Board. User acceptance testing will involve various users of the system, to review and assess the system in order to identify any deficiencies or bugs prior to the system going live. Following this process any revision necessary will be made prior to the actual "go live" date.
35. Following the revision period, formal user training will be arranged to ensure that staff are adequately trained on the Eclipse system.
36. A training plan has been prepared, including an e-learning course, video 'how to' training guides and super users and champions in Eclipse. A messaging network group for queries is also in place.
37. The training plan consists of e-learning training tools, focused classroom based training for identified key staff so they may become Eclipse champions, drop-in sessions and step by step guides on repetitive tasks.
38. The project manager has also spoken to staff from all areas of the service to identify any issues and difficulties so they may be mitigated in Eclipse.

Control 6

- **Adequate for the timely transfer of relevant data on individual cases between health and social care systems.**

39. We were informed by the Eclipse project manager that addressing the issue of putting processes in place for the timely transfer of relevant data is planned after all staff are on Eclipse.
40. There is currently no connection between Carefirst and NHS IT systems. At present there is a phone call or an email to share information when a service user is moving between the service and the NHS.
41. The future goal is to share information, and only relevant information, between NHS systems and Eclipse, paying particular attention to GDPR.
42. Although outwith the initial scope of this audit, we consider that currently the lack of integrated or shared use of systems, both for clinical / care use and corporate / admin use, impacts on the level of integration that can be achieved by operational teams. Therefore, further commitment is needed to work towards integrated/ shared use of required IT systems across Tayside.

Controls 7 & 8

- **Data is fit for use in other domains e.g. to provide performance info, approve cost commitments (invoice approvals), support resource planning**
- **Activity and financial data are meaningfully reconcilable.**


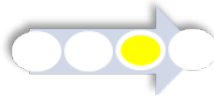


43. We interviewed a range of staff including Service Managers, Administrative staff, home care assessors, occupational therapy, mental health care, planning and performance officers and project staff and discussed the information they were inputting and any problems.
44. All staff consulted were either on the Eclipse project board or had input to the project board through another member of their team. All staff consulted reported that they had been asked for input in some way and their concerns and issues had been fed into the project team.
45. Data is entered onto the Carefirst system in the office as staff do not have laptops. When a referral is received it is logged on to the Carefirst system by clerical/administrative staff. Care staff add observations and assessments after their visits. All emails, telephone calls, conversations, home visits and hospital stays regarding a service user are input to their Carefirst record.
46. There are management reports on caseloads, activity, FOI requests, omissions and ad hoc reports when there is a request for research on a specific group of people. As part of the Eclipse project, the drop down category listings have been updated to try to ensure that they have meaningful data.

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47. Reports are used to enable numbers of service users to be monitored, help plan the budget, identify priorities, plan services and reduce costs. The service user's package has to be input correctly to ensure that it is costed correctly and subsequently paid for at the correct amount. The need to have meaningful categories to facilitate this has been highlighted to the Eclipse project team. Some operational staff felt that previously the lack of liaison with the performance team impacted on the usefulness of reports produced. However all relevant staff were able to input into the set up of the Eclipse system, data and reporting sets therefore this should now be mitigated.
 48. Staff interviewed stated that packages on Carefirst are not easily reconciled to Integra, the Angus Council financial system. The costs for providers, as per the contract, are on the Carefirst system but personal packages can change frequently and there can be differing rates for services in differing geographical areas.
 49. Work was ongoing during our fieldwork to improve reconciliation between activity and financial data. A working group consisting of the AHSCP accountant, the Principal Planning Officer and members of the planning team is comparing what is on the Integra financial ledger to what is commissioned on Carefirst. In addition, a new Home Care contract management system (CM) is being brought in to enable the actual hours worked to be automatically recorded and invoiced. This will be based on staff recording when they enter and leave the service users' house and will link to contract payments.
 50. Whilst we support the direction of travel, we have not been able as part of our work to assess the state of completion of additional developments. We would therefore recommend that the HSCP receives reporting on the progress of improvement actions. The data cleansing of Carefirst should help to ensure that the core data in Eclipse is correct, which should aid meaningful reconciliations.
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Section 4 Definitions of Assurance & Recommendation Priorities

Definition of Assurance




To assist management in assessing the overall opinion of the area under review, we have assessed the system adequacy and control application, and categorised the opinion based on the following criteria:

Level of Assurance		System Adequacy	Controls
Comprehensive Assurance		Robust framework of key controls ensure objectives are likely to be achieved.	Controls are applied continuously or with only minor lapses.
Moderate Assurance		Adequate framework of key controls with minor weaknesses present.	Controls are applied frequently but with evidence of non-compliance.
Limited Assurance		Satisfactory framework of key controls but with significant weaknesses evident which are likely to undermine the achievement of objectives.	Controls are applied but with some significant lapses.
No Assurance		High risk of objectives not being achieved due to the absence of key internal controls.	Significant breakdown in the application of controls.

Section 4 Definitions of Assurance & Recommendation Priorities

Assessment of Risk

To assist management in assessing each audit finding and recommendation, we have assessed the risk of each of the weaknesses identified and categorised each finding according to the following criteria:

Risk Assessment		Definition	Total
Fundamental		Non Compliance with key controls or evidence of material loss or error. Action is imperative to ensure that the objectives for the area under review are met.	None
Significant		Weaknesses in control or design in some areas of established controls. Requires action to avoid exposure to significant risks in achieving the objectives for area under review.	None
Merits attention		There are generally areas of good practice. Action may be advised to enhance control or improve operational efficiency.	Two