



INTERNAL AUDIT REPORT



Data Quality 2017/18

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Data Quality 2017/18

Executive Summary

1. Introduction & overall opinion

One of the Council's key priorities is to enable services that are effective and deliver value for money. This requires high standards of data quality to measure and monitor performance and support effective decision making and service management. An audit of data quality in 2014/15 gave an overall assurance rating of sufficient assurance and made five recommendations for improvement, including updating the Council's data quality strategy and action plan. This 2017/18 audit focused on a review of the updated strategy and detailed testing of a sample of performance indicators to assess the ongoing accuracy and reliability of data.

Based on Internal Audit's review and testing, the Council has a robust policy and governance framework for ensuring data quality. There is a good range of performance indicators (PIs) and targets linked to corporate and service objectives that are regularly reviewed and updated as part of the annual business and budget planning process. The format and content of the updated Data Quality (DQ) Strategy is sound with clearly established principles and processes and well defined roles and responsibilities, including regular checking of a sample of PIs. These arrangements could be further strengthened through more formal reporting of progress and outcomes against the strategy and roll-out of staff training. The use of templates to record PI definitions and other key information is good practice but only 43% were completed in 2016/17 and 69% in 2017/18.

Testing of a sample of performance indicators found that most were supported by a clear audit trail, although the source data is not centrally filed and therefore not always easy to locate or verify. Most PIs were found to be accurately calculated although errors and inconsistencies were identified in some cases. There remains scope to clarify and improve record keeping for the validation of data provided by external partners and contractors.

The audit was carried out in accordance with the agreed Audit Planning Record (APR), which outlined the scope, terms and limitations to the audit. The auditor's assurance opinion is summarised in the table below:

Internal Audit Assurance Opinion					
Control environment		Good		●	
Compliance		Satisfactory		●	
Organisational impact		Minor		●	
Risk	Control environment	Compliance	Recommendations		
			E	I	S
01 - Lack of meaningful performance indicators and/or an inadequate governance framework for ensuring data quality.	Good Assurance	Satisfactory Assurance	0	3	2
02 - Inaccurate calculation of performance indicators or use of unreliable or incomplete data.	Satisfactory Assurance	Satisfactory Assurance			
Total Number of Recommendations			0	3	2



2. Summary of findings

Risk 1: Lack of meaningful performance indicators and/or an inadequate governance framework for ensuring data quality.

The Council has a broad range of performance indicators, associated targets and key activities that are clearly linked to corporate and service objectives. These are regularly reviewed and updated as part of the annual business and budget planning process to ensure that they continue to reflect the Council's priorities. All PIs, targets and key activities are recorded and monitored in the TENS online performance monitoring system, which is updated each year following finalisation of the business and budget planning process. The development of business plans and associated PIs and target is an iterative process involving scrutiny and review by executive portfolio holders, corporate management team (CMT) and service managers. Once this process has been completed the PIs and targets are effectively regarded as approved.

The Council's approach to data quality is set out in its Data Quality Strategy and Action Plan, which was updated and approved by Executive in October 2015. Based on Internal Audit review, the format and content of the revised strategy is sound. It includes a clear statement of policy and principles, an explanation of governance arrangements and a clear definition of roles and responsibilities.

Strategic responsibility for data quality lies with CMT and the Performance Scrutiny Panel. Oversight is exercised primarily through meetings of the Performance Improvement board (PIB). Operational responsibility for co-ordinating and promoting data quality lies with the Council's Business Planning Officer (BPO), although the strategy makes it clear that all staff have a responsibility for ensuring data quality and that service managers and team leaders in particular are responsible for the accuracy and completeness of performance information and records for their service area.

There is regular reporting of performance indicators to the Performance Improvement Board but no formal reporting of progress, activities or achievements against the DQ Strategy and Action Plan. Progress is monitored on an informal basis only, which increases the risk that those with strategic responsibility may not identify any delays or inadequacies in delivery of the actions and expected outcomes in the strategy (**see recommendation 1**).

There are no operational guidance notes for service managers and team leaders in respect of data quality, although an outline of the systems and procedures is set out in the DQ strategy together with template documents. In addition, an e-learning training module is available but has not yet been rolled-out to staff pending completion of a broader review of corporate training and induction arrangements. However, there is currently no clear timetable for development of the corporate training plans, other than a commitment to complete this review this financial year. In Internal Audit's view, the data quality e-learning package should be rolled out immediately and incorporated into the corporate and induction plans at the appropriate time (**recommendation 2**).

A standard template has been developed by the BPO to record full details of all PIs including a clear definition, calculation formula, data sources, data verification arrangements and officer responsible. This is good practice but testing found that less than half (43%) of 2016/17 PIs had a completed form although this has increased to 69% for 2017/18 and progress with the remaining forms is being monitored and reported to PIB.

The BPO undertakes regular spot-checking of a sample of performance indicators on a monthly basis. These checks are recorded on a standard form and the outcome is reported to the Performance Improvement Board as a standard



agenda item. Internal Audit review of PIB minutes confirmed that spot-checks had been carried out and were clearly documented and reported. In addition to the BPO checks, some service managers stated that they undertake their own data verification testing, particularly in respect of data provided by external partners and contractors. However, for the cases reviewed by Internal Audit it was stated that these checks are not formally recorded or evidenced. Failure to record these data verification checks weakens the audit trail and makes it impossible to review or verify the effectiveness of the process (**see recommendation 3**).

Based on these findings the assurance rating for the control environment is **good** as the council has a sound control framework with only minor weaknesses related to reporting and staff training. The assurance rating for compliance with controls is **satisfactory** on the basis that the PI templates are not being completed for all services and data validation is not being recorded.

Risk 2: Inaccurate calculation of performance indicators or use of unreliable or incomplete data.

The BPO has developed a standard spreadsheet for the collection, calculation and upload of all performance information to the TENs system. This provides a clear audit trail from the TENs system and performance reports to the original PI calculations. However, the underlying source data used to populate the standard spreadsheets is not centrally filed; data and records are kept by the relevant service manager or nominated responsible officer. In practice this means that the data is stored in many different locations and formats. The PI definition templates include a section for officers to record the location of source data although, as stated above, the majority of 2016/17 PIs did not have a completed form.

From a sample of 17 PIs selected for testing by Internal Audit, all had a clearly identifiable officer with responsibility for collection and reporting the information. However, in three cases (18%) it was not possible to fully trace the reported figures to the prime records (see table 1).

Table 1. PIs from the audit sample that could not be traced to source data

Ref	Description	Issue
CON02	Percentage of household waste sent for recycling, reuse or composting.	The tonnage of recycled waste agreed to source data but it was not possible to verify the total waste collected for the quarter.
HR04	Processing of at least 100 DBS checks per rolling 12 months.	The data should be derived from two sources (HR and Licensing) but there was no central record of the combined number of cases and figures were overstated based on invoices provided.
LDS TPI02	80% of General Legal enquiries (including land title queries) to be given a response/target for response within 5 days	A register of enquiries is in place but it not populated regularly or consistently. Consequently it was not possible to reconcile the reported performance to the source data.

Failure to provide a full audit trail to source data and records increases the risk of errors or inconsistencies going undetected (**see recommendation 5**).

It is the responsibility of individual service managers and team leaders to ensure the integrity and validity of data provided by external partners and contractors. The PI definition template includes a section for managers to provide

details of any specific validation arrangements that are applied. However, as noted above, most 2016/17 PIs did not have a completed template and validation checks are not recorded (**see recommendation 3 and 4**).

Testing of a sample of 17 PIs confirmed that most had been calculated accurately although errors or inconsistencies were identified in five cases, two of which were isolated errors (see table 2).

Table 2. PIs from the audit sample with errors or inconsistencies

Ref	Description	Issue
FS03	Payments of creditors within 30 days.	The date used as the 'start date' is the date the invoice is entered onto the finance system rather than the date the invoice is received. However, for the cases sampled this did not have any impact on the reported performance.
CON02	Percentage of household waste sent for recycling, reuse or composting.	The figure submitted for quarter three was the cumulative percentage rather than the quarterly percentage. There is no evidence that this was anything other than an isolated error rather than a systematic weakness.
CP02	Satisfaction with the way the Council deals with anti-social behaviour complaints.	The method of calculating the PI was incorrect and inconsistent with the stated definition.
COR01	Stage 1 and Stage 2 complaints responded to within 20 days.	The sample included one case that was classified as being resolved within 20 days but actually took longer to resolve. Officers stated that this was an unusual and isolated case that should not have been included in the reported statistics. Again, there is no evidence that this error represents a systematic breakdown in controls.
COMMIS TPI07	Savings delivered through Commissioning (measured against indicative budget).	The basis for calculating savings was not consistent with the stated definition, although it is questionable whether the definition provides a suitable basis for measuring savings in any case.

Overall, there were errors, inconsistencies or an inadequate audit trail for seven of the PIs in the sample (41%), although some of the errors are unlikely to have had a significant impact on reported performance and at least two were isolated cases. In addition, the BPOs own testing of a sample of 21 PIs did not identify any errors. Nevertheless, the errors and inconsistencies identified by Internal Audit indicate a potential risk that performance levels may be misreported in some areas (**see recommendation 2, 4 and 5**).

Based on these findings, the assurance rating for the control environment is **satisfactory** as the Council's systems for collection and reporting of PIs is generally sound. The assurance rating for compliance with controls is **satisfactory** on the basis that a number of errors and inconsistencies were identified but nothing to indicate a significant or systematic failure of controls.



3. Action Plan

The following Action Plan provides a number of recommendations to address the findings identified by the audit. If accepted and implemented, these should positively improve the control environment and aid the Council in effectively managing its risks.

4. Limitations to the scope of the audit

This is an assurance piece of work and an opinion is provided on the effectiveness of arrangements for managing only the risks specified in the Audit Planning Record.

The Auditor's work does not provide any guarantee against material errors, loss or fraud. It does not provide absolute assurance that material error, loss or fraud does not exist.

ACTION PLAN

Rec No.	ISSUE	RECOMMENDATION	Management Comments	Priority	Officer Responsible	Due date
1	<p>The format and content of the DQ strategy and action plan is sound but there is no formal reporting of progress against the expected outcomes and actions.</p> <p>This increases the risk that the Council may fail to realise the expected benefits of the strategy.</p>	<p>The Business Planning Officer should prepare an annual report for the Performance Improvement Board and/or Performance Scrutiny Panel summarising key activities and achievements against the overall objectives, anticipated outcomes and specific actions in the Data Quality Strategy and Action Plan. This information could also be used to inform future strategy reviews.</p>	<p>This has already been added to the Forward Plan of Performance Improvement Board (PIB). Reporting to the PIB will take place on a quarterly basis.</p>	<p>Standard</p> <p style="text-align: center;">●</p>	<p>Corporate Services Manager</p>	<p>Completed</p>
2	<p>There has been no staff training on data quality and testing has identified a number of errors and weaknesses in audit trails. An e-learning module is available but has not yet been rolled-out pending a corporate review of training and induction arrangements. However, there is no clear timetable for the corporate review and further delays in rolling out the training increases the risk of ongoing weaknesses in data quality.</p>	<p>The data quality e-learning module should be rolled out to key staff immediately and incorporated into future induction and/or corporate training programmes at the appropriate time.</p>	<p>Agreed and completed. Evidence provided to Internal Audit that all service managers and other key staff have now completed the e-learning module.</p>	<p>Important</p> <p style="text-align: center;">●</p>	<p>Corporate Services Manager</p>	<p>Completed</p>

Rec No.	ISSUE	RECOMMENDATION	Management Comments	Priority	Officer Responsible	Due date
3	<p>In two cases tested by internal audit officers stated that they undertake their own data validation checks, although these checks are not formally recorded.</p> <p>Failure to record validation checks means there is no evidence to support the integrity of the data.</p>	<p>Introduce a standard template for recording data verification undertaken by service managers (particularly in respect of data provided by external partners or contractors) or adapt the template used by the Business Planning Officer to ensure consistency of recording and evidencing the verification process. The sample checks undertaken by the Business Planning Officer should include checking for evidence of any service manager checks where appropriate.</p>	<p>This will be implemented by the end of Quarter 2 of the 2017/18 year.</p>	<p>Standard</p> <p>●</p>	<p>Corporate Services Manager</p>	<p>30th September 2017</p>
4	<p>Although PI calculation worksheets are centrally located, retention and filing of the source data and records is the responsibility of individual service managers and team leaders. The location should be recorded in the PI definition templates but less than half of these were completed in 2016/17.</p> <p>From a sample of 17 PIs tested by Internal Audit there were four cases (24%) where it was not possible to fully trace the reported figures to the source data. Weaknesses in the audit trail increase the risk of errors or inconsistencies going undetected and performance being misreported.</p>	<p>All officers with responsibility for collecting and reporting performance information should be reminded of the need to retain source records to provide a full and clear audit trail. Consideration should be given to establishing clearer arrangements for recording the location of all source data (e.g. including hyperlinks in the PI definition templates). The effectiveness of these arrangements should be reviewed as part of the regular spot-checks undertaken by the Business Planning Officer.</p>	<p>A central location will be created and recording will commence from the start of Quarter 3.</p>	<p>Important</p> <p>●</p>	<p>Corporate Services Manager</p>	<p>1st October 2017</p>

Rec No.	ISSUE	RECOMMENDATION	Management Comments	Priority	Officer Responsible	Due date
5	<p>Testing of a sample of 17 PIs identified errors or inconsistencies in the calculation of the PI compared to the stated definition in 5 cases (29%).</p> <p>Overall, there were errors, inconsistencies or a lack of audit trail in eight cases (47%). Although some errors were unlikely to have had a major impact on reported performance, there is an increased risk that decisions may be based on unreliable information.</p>	<p>The Business Planning Officer should ensure that the errors identified as part of this audit are corrected, including any necessary modifications to PI definitions, and ensure that the reported performance and comparators (where necessary) are adjusted. The Business Planning Officer should also ensure that these PIs are included in future spot-checks to ensure the errors are not repeated.</p>	<p>All errors will be corrected by the end of Quarter 2.</p> <p>Spot –checks on the errors will be undertaken in Quarter 3.</p>	<p>Important</p> <p>●</p>	<p>Corporate Services Manager</p>	<p>31st December 2017</p>

GLOSSARY

The Auditor's Opinion

The Auditor's Opinion for the assignment is based on the fieldwork carried out to evaluate the design of the controls upon which management rely and to establish the extent to which controls are being complied with. The tables below explain what the opinions mean.

Compliance Assurances		
Level	Control environment assurance	Compliance assurance
Substantial ●	There are minimal control weaknesses that present very low risk to the control environment.	The control environment has substantially operated as intended although some minor errors have been detected.
Good ●	There are minor control weaknesses that present low risk to the control environment.	The control environment has largely operated as intended although some errors have been detected.
Satisfactory ●	There are some control weaknesses that present a medium risk to the control environment.	The control environment has mainly operated as intended although errors have been detected.
Limited ●	There are significant control weaknesses that present a high risk to the control environment.	The control environment has not operated as intended. Significant errors have been detected.
No ●	There are fundamental control weaknesses that present an unacceptable level of risk to the control environment.	The control environment has fundamentally broken down and is open to significant error or abuse.

Organisational Impact		
Level	Definition	
Major ●	The weaknesses identified during the review have left the Council open to significant risk. If the risk materialises it would have a major impact upon the organisation as a whole.	
Moderate ●	The weaknesses identified during the review have left the Council open to medium risk. If the risk materialises it would have a moderate impact upon the organisation as a whole.	
Minor ●	The weaknesses identified during the review have left the Council open to low risk. This could have a minor impact on the organisation as a whole.	

Category of Recommendations

The Auditor prioritises recommendations to give management an indication of their importance and how urgent it is that they be implemented. By implementing recommendations made managers can mitigate risks to the achievement of service objectives for the area(s) covered by the assignment.

Priority	Impact & Timescale
Essential ●	Action is imperative to ensure that the objectives for the area under review are met.
Important ●	Requires actions to avoid exposure to significant risks in achieving objectives for the area.
Standard ●	Action recommended to enhance control or improve operational efficiency.