



City of York Council

Data Quality Policy

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1 Introduction

Purpose

- 1.1 This Data Quality Policy is intended to help the Council and its staff to improve the quality of the information they use to plan and monitor service delivery and improvement. Its main purpose is to:
 - clarify what data quality is and why it's important.
 - set out the 4 standards of good data quality to ensure they influence the council's corporate business model.
 - ensure these standards are delivered in the context of a 3 stage data quality process.
 - clarify roles and responsibilities for data quality throughout the organisation
 - provide a framework to assess, review and improve the quality of performance indicators and decision-making across the council.
- 1.2 This Policy primarily focuses on the data underpinning performance indicators. However, it can also be used to improve 'management information' used more widely, both at service and corporate levels of the organisation.

What is data quality & why is it important?

- 1.3 Data and information is everywhere, but how often do we consider how accurate it is or where it has come from? Data quality relates to the accuracy of information used to judge performance or inform business decisions. This can include simple data from processes or systems, performance indicator results, information about key actions and projects, or high level collective results about an organisation (e.g. our CPA score).
- 1.4 Producing data that is fit for purpose should not be an end in itself, but an integral part of an organisation's operational, performance management, and governance arrangements. We need to put data quality at the heart of our performance management and decision making, so we are more likely to be actively managing data in all aspects of day-to-day business, in a way that is proportionate to the cost of collection, and turning the data into reliable information for decision making.
- 1.5 The council is committed to excellent data quality in all of the information it uses to assess performance. This is particularly important because:
 - we need it to support continuous improvement and more effective use of resources.
 - good data quality is crucial to support effective decision-making – not just in terms of performance management, but also business and strategic planning.
 - it helps us provide high quality information to the public, government departments, auditors, and our partners.

- it allows councillors, partners and service users to make objective judgements about the quality of the services the Council delivers.
- it is required to show how well we are performing in comparison to other local authorities. This can also aid effective benchmarking.

Who needs to read this policy?

- 1.6 This document is aimed principally at those officers who collect, analyse and report performance data (e.g. service managers, directorate performance officers, etc). However, this policy is also useful for those at the very front and end of the reporting process, namely:
- the staff who complete forms or enter data into business systems.
 - those who receive the data and management information (e.g. CMT, Executive members, assistant directors and service managers).
- 1.7 This document should also guide our LSP partners who regularly submit and receive performance data and management information from and to the council to support joint service delivery, the Sustainable Community Strategy and the Local Area Agreement.

2 Data Quality – national and local context

- 2.1 The council needs to be accountable for the public money we spend and the information we produce about performance and improvement must therefore be accurate, reliable and timely. As a result, our data quality arrangements are audited annually to check:
- that the performance results are calculated accurately, given that our performance is compared to other unitary authorities (e.g. quartiles) and large amounts of government funding is now linked to our performance.
 - that we have adequate arrangements in place to manage the council effectively and make key decisions.
- 2.2 To help do this effectively, the Audit Commission has developed a framework to help improve data quality in local government. This framework provides the basis of the Key Lines of Enquiry (KLOEs) that are used by external auditors to assess the effectiveness the council's data quality arrangements. The overall corporate scores that the Council receives for data quality feed into the government's Comprehensive Area Assessment (CAA) process - previously CPA.
- 2.3 Data Quality forms an integral part of the Council's broader corporate performance management framework. In the past, the quality of performance information was seen as a compliance event, once a year, when the year-end outturns get produced.
- 2.4 This policy builds on these arrangements to make data quality an integral part of the way we use data throughout the year (e.g. for monthly and quarterly reporting and other reports to EMAP, CMT, Executive, the WoW Executive Delivery Board, etc).

3 The City of York Council's commitment to data quality

- 3.1 If data quality is to be sustainable and consistent through the council, it must become an integral part of our business culture. This means considering data quality in everything we do and report.
- 3.2 So how will we know when we have achieved this? The council has established a clear vision of what this will mean in practice:
- there is a strong demand for high quality performance and management information from the officers and members who rely on it to inform and improve their decision-making. Data quality is not seen solely as a compliance issue.
 - we are able to provide robust and timely evidence to demonstrate the accuracy of our data and information. This is mainly produced for our own business purposes, but can also be used by auditors as a by-product.
 - we have efficient processes and procedures in place to produce performance information – which happens naturally, rather than in addition to normal working. The Council continually seeks to improve these processes whilst ensuring that efforts to improve data quality are proportionate to the benefits the information delivers.
- 3.3 We are committed to becoming an organisation that puts data quality at the heart of performance management to help us actively managing data in all aspects of our day-to-day business.

4 The 4 standards of data quality

- 4.1 There is no designated process or standard procedure that can easily be applied across the council to ensure consistency of data quality. Every directorate, service area or corporate forum will have different information requirements to one degree or another.
- 4.2 However, although the information requirements may vary, the need to receive good quality data remains. It's therefore important to consider 4 key characteristics (or standards) of good data quality.

The 4 standards of good data quality	
1. Accuracy	Data should be sufficiently accurate for its intended purposes and presented clearly in the appropriate level of detail. Ideally, data should only be captured once, although it may have multiple uses (COUNT – Collect Once Use Numerous Times). Accuracy is most likely to be achieved if data is captured as close to the point of service delivery as possible. Information that is based on accurate data provides a fair picture of performance and should enable more effective decision-making and resource allocation at all levels of CYC. The need for accuracy however, must be balanced with the importance of the uses for the data, and the costs and effort of collection. For example, it may be appropriate to accept some degree of inaccuracy where timeliness is important. Where compromises have to be made on accuracy, this should be made clear to those who receive or use it.

2. Validity	Certain data may need to be recorded and reported using a set of compliance requirements (e.g. to specific calculation rules or definitions). This will ensure consistency between the period covered and when we compare our performance with similar councils (e.g. Unitary quartiles). It's also important to source data/information where this is possible, to show that it has come from a formal document, report, website or system.
3. Timeliness	Data should be captured as quickly as possible to ensure it is available for review within a reasonable time period. Data must be available quickly and frequently enough to support effective performance management and to allow corrective action to be taken before a financial period ends.
4. Accessibility	All relevant data and information should be accessible to users via on-line information systems – and as soon as it becomes available. It should be presented under simple definitions that are proven to be understandable to the layperson. Data/info that shows poor performance should not be hidden or be inaccessible, whilst the issue is reviewed.

4.3 In practice, these standards need to be applied as consistently as possible depending on the importance and intended use of the information being provided.

4.4 A self-assessment matrix is available to help you review your current data quality arrangements (see section 10 of this policy – ‘tools & templates’). Depending on your result, actions to improve one or more of the 4 areas may need to be delivered. All directorates should continue to make improvements until they are scoring 4 or 5 across the matrix.

5 The 3 stages of data quality improvement

5.1 To help understand how you can practically apply data quality standards within our performance reporting procedures, a 3-stage checking process has been developed (see table below). This starts with initial data collection and ends with analysis and reporting.

5.2 This 3-stage process has successfully been used to improve data quality for the collection of year-end performance outturns. However, it can be applied to any performance indicators or key actions/projects.

Stage 1: data collection and input

This stage covers:

- initial data generation (i.e. physical recording of info/data), often done by front line services through filling forms or simply recording results.
- inputting data into a document, spreadsheet or system.
- a survey or review of a particular issue or area.
- gathering feedback from someone or a group, on progress of a particular project or action.

Please note that in terms of key systems, this stage just covers raw data, not the calculation formula for an indicator (accepting that some systems do simple automatic calculations to work out duration times).

Key areas which you can carry out quality assurance checks here are:

- ✓ Collection and recording procedures (including forms or templates).
- ✓ Regular integrity checks on your key systems (i.e. do the print outs/reports tally back to what really happened? Are procedures in place to check post collection/input changes? (see section 6 of this policy for more details).
- ✓ Checking that project or action plans have been developed to support delivery. These could include original milestones or deadlines that are important for reporting progress.

To help with this process toolkits and templates will be developed further by the Performance Officer Group.

Stage 2: calculation & evidence gathering

This stage involves gathering information to help calculate a performance result or set a target. It's probably easier if we think about this in terms of filling in an actual or target proforma for year-end statutory indicator outturns (e.g. NPIs). However, directorates should also introduce more simplistic checking procedures to check that data is being calculated correctly and consistently throughout the year. In many cases, this may only need to be a series of sample checks throughout the year.

The first step is to gather information from a series of documents, a system or spreadsheet and use this to help calculate an answer. Of course the information used also plays a vital role as working papers or audit trail evidence.

Key areas which you can carry out quality assurance checks here are:

- ✓ Making sure staff involved in data calculation and evidence gathering have access to the most up-to-date guidance and regulations? Click here for current government guidance - [National Guidance](#)
- ✓ The completion of outturn and target proformas for year-end performance.
- ✓ The collection and storage of data quality evidence (e.g. source information, working papers, reports printed from systems). Making sure officers regularly source and gather evidence for the data and information they produce will improve the 'accuracy' and 'validity' of data (see section 7 of this policy). These documents can also be provided as clickable links in reports in case stakeholders want to understand the background of performance and management information better.

Stage 3: analysis & reporting

Once data/information has been collected and performance has been calculated, it will be necessary to review and analyse the results prior to reporting. This is actually the most difficult part of the 3 stage process to check as it relies on the interpretation of the people doing the reporting.

It is commonplace for the same data or information to be reported completely differently, depending on the way you look at the available data. The audience you are reporting to, or the sensitivity of the issue being reported, can often influence this. **However, the most accurate and realistic position on an area of performance and service delivery must always be reported.**

Effective performance management is reliant on this. Its main purpose is to identify areas that need to be addressed to ensure we deliver the improvement we have promised in strategies and plans. Hiding or putting a positive slant on questionable performance improvement will eventually be uncovered at the end of the year - when it's too late to take corrective action or gather corporate support.

Key areas which you can carry out quality assurance checks here are:

- ✓ Continuing to make improvements to score a 4 or 5 under the 'accuracy' and 'validity' standards. If achieved, this will improve the quality and consistency of analysis for reporting.
- ✓ Year-end templates and proformas (which require 'significant variance' and 'continuous improvement' analysis).
- ✓ Regularly sourcing data and information within reports.

5.3 The 3-stage process highlights the importance of considering data quality early on. If there are problems at the collection and input point, any further use of the data will be compromised (this is supported by the GIGO principle - garbage in, garbage out).

Evidence and records

5.4 You will need to produce clear and concise evidence to demonstrate that data assurance procedures are in place for all 3 stages. These will also be useful in terms of demonstrating improvement for the standard's self-assessment matrix. They will also be crucial for the annual data quality inspection process, carried out by the Audit Commission (see section 9 of this policy).

5.5 A shared area has been set up on the council's V:drive to act as a central reference point for data quality proformas, templates, evidence and records. If you require further information on how to use this, or simply want more clarity on

the different stages of quality assurance checking, please contact your directorate performance officer.

Applying risk to data quality

- 5.6 Risks should be identified when looking at data quality. It's important to know what the potential problems might be with data/information collection and what can be put in place to reduce these risks. Some examples include:
- small cohorts, which are not statistically viable enough to represent a larger population or can cause significant variances that don't represent real improvement or decline in performance.
 - technically complex PI definition/guidance.
 - statutory indicators that have been qualified or regularly recalculated in previous data quality audits.
 - inexperienced staff involved in data processing/PI production.
 - establishing a measurement process or system for a new indicator.
 - projects or actions that have no deadlines or milestones.

6 Checking system integrity

- 6.1 The vast majority of the performance data and management information the council uses comes from a number of key systems across the organisation (e.g. Dephi, EXOR, SERVITOR, FMS, SX3, RAISE, etc). An effective way of improving data quality at stages 1 and 2 of the process is to carry out 'systems integrity checks' on these systems at specific intervals throughout the year.
- 6.2 This involves carrying out 2 to 3 in-year sample audits of your key information system, by conducting a thorough examination of a system output, such as a report. For example, quality checks can be carried out by tracking records or data from a report back to the source documents, originally inputted into the system. Any errors can be rectified and audit trails kept for reference. These files can then be presented to auditors if particular indicators that use the system are inspected. This type of procedure can yield significant data quality rewards for a modest effort.
- 6.3 Regular systems integrity checks are also crucial where information is produced to support high-risk data, such as adult/children social services and benefit payments.

7 Sharing and sourcing data (not complete)

Sharing data with and getting data from partners

- 7.1 Under the government's new framework of National Performance Indicators (NPIs), local authorities will be required to collect, analyse and report performance in partnership. We may also need to report progress on joint projects or actions as the LSP becomes more established.
- 7.2 This will require us to share (send and receive) more data and information with key LSP partners and other contractors. The Executive Delivery Board will be

reviewing data quality standards over the next few months and this policy will be updated once the review is complete.

Sourcing your data and information

7.3 A significant amount of data or information used for calculating and reporting performance and/or to support key business decisions in other reports, comes from other sources. These could include:

- data from official government websites (e.g. NOMIS, IMD, CIPFA, DEFRA, ONS, etc).
- regional statistics documentation (e.g. Yorkshire Futures).
- surveys or research (e.g. MORI statistics, The Resident's Opinion Survey, Talkabout).

A full list of popular data/information source references are shown in Annex 2 of this policy.

7.4 When reporting this type of information or when completing data quality templates and proformas, the data source should be referenced. This not only places the information into context, it also shows that it has come from a reputable or reliable source.

Data security

7.5 Security is a key consideration for certain types of data when we input, report and share information. The Data Protection Act and other key government legislation (e.g. Freedom of Information Act, Children's Act 2004) should be referred to and complied with at all times. Where data is confidential, but is still required by users, this should be made clear in the report and as a caveat for sharing the report with other stakeholders.

7.6 There is also a council policy on record management, which will also influence data/information reporting and sharing, and this can be viewed by clicking the following link. [<record management policy>](#)

8 Roles & responsibilities

8.1 It's important that all stakeholders have clearly assigned and understood roles and responsibilities for data quality within the Council if this policy is to have an impact.

8.2 The table below provides headline information about these roles and responsibilities. However, these will need to be disseminated and delivered by directorates using an approach that suits the way their services operate and work.

Stakeholder	Roles and Responsibilities
Executive and CMT data quality champions	<ul style="list-style-type: none">• Developing and driving forward the data quality improvement action plan.• Promoting the importance of data quality in performance management and decision-making when opportunities arise.• Provide a clear understanding of the data quality issues facing the council and regularly review progress.

Staff & service managers	<ul style="list-style-type: none"> • Application of data quality standards to performance indicators and projects/actions. • Regular review of performance guidance and other government department information. • Check accuracy of service level information and ensure compliance with internal / external definitions (e.g. National Indicator Set definitions) • Carrying out system integrity checks. • Take steps to minimise stage 1 errors (collection and input). • Report inconsistencies and problems to Managers or directorate performance officers
Directorate Performance officers / teams	<ul style="list-style-type: none"> • Act as Data Quality champions within directorates – providing guidance and support to services. • Identify performance data and actions, which are deemed to be strategically important – so the data quality standards can be applied more rigorously. • Ensure systems integrity checks are regularly carried out within directorates. • Promote the use of the data quality self-assessment matrix at service level. • Maintain and review data quality evidence, templates and proformas across directorates and within the council's shared v:drive.
Directors and Assistant Directors	<ul style="list-style-type: none"> • Ensure that performance indicators used to assess performance are of sufficient quality. Many of the problems experienced with data quality often start with poorly defined performance indicators and/or projects/actions. • Ensure key management information systems are reviewed regularly through systems integrity checking. • Provide visible leadership within a directorate on the need to continually improve data quality - driving forward improvement strategies on data quality and providing additional resource support where required.
PIET	<ul style="list-style-type: none"> • Manage the council relationship with external audit and work with internal audit to review progress on this data quality policy. • Produce and co-ordinate corporate proformas and templates, which support data quality. • Work closely with the council's data quality champion to improve and maintain the corporate framework for data quality.
Internal Audit	<ul style="list-style-type: none"> • Carry out regular audits of data quality across the council – working with the PIET to review the quality of data/information produced on high-risk performance indicators and actions. • Liaise with the Audit Commission to support the annual data quality audit process (pre – year end performance publication).
Councillors	<ul style="list-style-type: none"> • EMAP members need to reassure themselves that services have sufficiently robust systems in place to ensure good data quality for key management information.
Partners	<ul style="list-style-type: none"> • Consider the data quality standards within the Council, and provide support to improve these standards (as set out in Section 7). • Develop data sharing protocols as appropriate to ensure the timeliness and accessibility of data. • Improve the data quality of information used for reporting to the WoW Executive Delivery Board.

Note: We may need to add something for CMT/Executive on the governance and leadership role for data quality.

9 Data quality audits

9.1 Although the standards set out in this policy are needed to improve the way the council manages performance and makes key decisions, these standards also need to be delivered to help us demonstrate to external auditors that we have robust and effective data quality procedures in place.

- 9.2 Every year, between June and August, the Audit Commission carries out a formal audit of these arrangements. The standards, proformas, templates and supporting evidence mentioned in this policy will be used by the auditors to assess how good our data quality is and what improvements we have made since their last visit. The results of this audit influence the Comprehensive Area Assessment and the council's Annual Audit Letter.
- 9.3 Only statutory indicators (e.g. National Performance Indicators) will require year-end outturn and improvement target proformas to be completed. Audit trail evidence to support calculations and any significant variances in performance between previous years will also need to be produced. For more information about this audit and what role you need to play, please contact your directorate performance officer.

10 Tools and templates for data quality

10.1 To help support this data quality policy, a number of tools and templates are available to help deliver improvements or support compliance arrangements. These are all available online in the 'performance management and guidance' section of the council's intranet. Clickable references are set out below for those who are reading this policy in electronic format.

Self assessment matrix

10.2 This is set out in Annex 1 of this policy. Alternatively, you can click the following link to use the matrix online. [<Data quality standards self-assessment matrix>](#)

Proformas and templates

10.3 Year-end performance outturn and 3 year target setting proformas, together with completed examples can be accessed by clicking here [<outturn and target proformasn and guidance>](#)

10.4 These may be reviewed by Internal Audit and the Audit Commission as part of the annual data quality audit process. Further templates may be added to this area as the improvements on corporate standards are made.

Statutory guidance

10.5 Government bodies such as the Audit Commission, DEFRA, DfEE and CSCI regularly produce guidance for statutory performance indicators. This can include:

- performance definitions and reporting parameters.
- methodologies for measuring and calculating performance.
- timescales for when measurement or surveys need to take place.
- references to other supporting guidance.

10.6 You should contact your directorate performance officer for a list of the guidance that is relevant to your directorate or service area. All statutory guidance is also available on the council's intranet and can be accessed by clicking the following link. [<Statutory PI Guidance>](#)

Key information about York and CYC

10.7 A significant amount of information used in performance management and other reports uses key local data. This includes:

- The population of York
- The BME population of York
- York's population by age group
- The number of children in York's schools
- The number of council house tenants in York
- The number of disabled people who live in York
- The number of households in York
- York's geographic area in KM2
- Staff numbers in directorates (FTE & headcount)
- The number of staff employed by the council (FTE & headcount)

10.8 This can change from year to year and it's therefore important that we use the same figures to calculate and report performance, or use this as contextual data for other reports. To make this easier this data is available on the council's intranet and can be accessed by clicking the following link [<local data on York and CYC>](#)

Further information & support

10.9 If you have any queries relating to this policy or other areas of data quality, please contact one of the following officers:

Peter Lowe (Policy, Planning & Improvement Team)

Tel: 552033 e-mail peter.lowe@york.gov.uk

Nigel Batey (Policy, Planning & Improvement Team)

Tel: 552047 e-mail nigel.batey@york.gov.uk

Self-assessment Matrix

Annex 1

Score	Accuracy	Validity	Timeliness	Accessibility
4 - 5	<p>Data is of sufficient accuracy to meet the needs of all users. Any reported changes over a period of time are within statistical confidence intervals for the data set being reported.</p> <p>If a change in performance is due to special circumstances, this is clearly stated when the data or information is reported</p>	<p>Data is recorded and reported consistently under specific calculation rules or definitions. Comparative information is also shown, where available and our results are compared with similar councils or organisations, where possible. The source of data and information is referred to where available. The data/information is recognised by users as a <i>strong</i> measure of success for the area being reported.</p>	<p>The data and information is available quickly and frequently enough to allow rapid intervention or corrective action to take place by key staff and management.</p> <p>The data and information also refers to a period of time close to the date it is reported (e.g. performance for April to September is reported in early October).</p>	<p>The data and information is accessible to users via on-line information systems quickly and simultaneously. It is presented under simple definitions or descriptions that are proven to be understandable to the layperson. More data and information is available and accessible if stakeholders want to get behind the performance headlines.</p>
2 - 3	<p>The accuracy of the data is sufficient to provide an 'indicative view' of whether performance is improving, but there are still data gaps or statistical viability areas that need to be addressed.</p>	<p>Data is reported under a specific theme, but there is no formal guidance on definition or calculation. Comparative performance is only provided where the government provide it (e.g. quartiles) and data sources are inconsistently applied. The data is recognised by some stakeholders as a <i>useful</i> indication of improvement.</p>	<p>The data is produced in enough time to allow management to respond to problems, but delays to releases sometimes reduce the usefulness of the data or information. The data and information refers to data that is more than one month old (e.g. performance for April to September is reported in November or later).</p>	<p>The data is accessible to some stakeholders straight away, but there are delays before others can access it around the organisation. It's often presented in a format that requires further analysis to understand improvement in more depth and this is only available by request. The indicator definition is understandable to most lay persons with support</p>
1	<p>The data is mainly considered inaccurate and is not trusted by the Council or its partners.</p>	<p>There is no formal guidance on definition or calculation for this data and comparative information is not used and sources are rarely referenced. The data is not really valued by most stakeholders as an indication of improvement.</p>	<p>The data is released so late after the period it represents that it is useless for anything other than looking back at what actually happened.</p>	<p>The data is difficult to get hold of outside formal reporting periods and suffers from a complex definitions or the inability of stakeholders to relate it to areas of improvement or delivery.</p>

NOTE: Assessments should be aimed at themed areas of improvement (e.g. Educational attainment, Street cleanliness, Housing repairs and maintenance, etc). These should be assessed in the context of how data or management information is used to assess progress or improvement. For example, assessing GCSE results would be done in the context of improving the attainment level of children at 16 years old.

