

# DATA QUALITY POLICY AND ACTION PLAN

## 1. Introduction

The purpose of this policy is to provide a framework for improving data quality across the Council. Consistent, high-quality, timely and comprehensive information is vital to support good decision making and improved service outcomes.

Performance information is increasingly being used by external bodies to assess our performance, often as an alternative to inspection, and this trend is causing external bodies to place a bigger emphasis on data quality. In particular, the external audit approach of checking calculations and systems reports is evolving into a more challenging scrutiny of systems controls.

This policy outlines the steps necessary to maintain the highest possible standards throughout the processes that result in recognisable performance information.

Data will be of high quality if it is:

- Accurate (in terms of correctness).
- Comprehensive (in terms of all data being captured).
- Valid (in an agreed format which conforms to recognised local authority and national standards).
- Available when needed.
- Stored securely and confidentially.

There are a number of principles that underpin good data quality. It is important to consider these sequentially because if any of these principles are not adhered to, inaccuracies are likely to creep in, and adherence to subsequent principles will not be able to rectify the position:

**Awareness:** everyone recognises the need for good data quality and how they can contribute;

**Definitions:** everyone is aware of the requirements of the data that is produced;

**Input:** there are controls over input;

**Verification:** there are verification procedures in place as close to the point of input as possible;

**Systems:** are fit for purpose and staff have the expertise to get the best out of them;

**Output:** information is extracted regularly and efficiently and communicated quickly;

**Presentation:** information is presented, with conclusive evidence, in such a way as to give an easily understood and accurate picture of our performance to external inspectorates and the public.

This Policy and Action Plan takes into account the report on the Data Quality Inspection undertaken by the Audit Commission in 2006 and reported in their Annual Governance Report. The County Council's management arrangements for data quality were assessed as adequate (scoring in 2006 was either adequate or inadequate) with some elements of good practice in place, but room for improvement. This equated to a pass in terms of the VFM conclusion criteria for data quality. The Audit Commission recommended that the authority develop a detailed policy for data quality with clearly defined actions, timescales and roles and responsibilities for both officers and those charged with governance.

## **2. Awareness**

Data quality is the responsibility of every member of staff entering, extracting or analysing data from any of the Council's information systems. Every relevant officer should be aware of his or her responsibilities with regard to data quality. The commitment to data quality will be communicated clearly throughout the Council to reinforce this message.

Some officers will have overall responsibility for data quality on a system (this is dealt with in paragraph 10), but this does not exempt others from the responsibility to ensure that data is accurate and up-to-date.

Responsibility for data quality should be reflected in job descriptions and the appraisal process. Business Units are encouraged to ensure that suitable appraisal targets and paragraphs in job descriptions are included, given the level of involvement staff have in the data collection process.

There is collective responsibility for data quality, but it is necessary to be clear about what actions and responsibilities are allocated to specific individuals and teams in order to implement this strategy.

### **3. Definitions**

All officers should know how their day-to-day job contributes to the calculation of performance information and how lapses can either lead to errors or delay reporting, both of which limit our ability to manage performance effectively.

This means that everyone should have an understanding of any performance information affected by the data they contribute. A basic grasp might be, for example, knowledge of what the numerator and denominator is, and whether there are any important technical guidelines (for example, the exclusion of certain cases). This will normally be easier to communicate if staff understand the purpose of the indicator, or the policy it is meant to monitor.

Continuous Performance Assessment (CPA) indicators and Best Value Performance Indicators (BVPI's) have nationally set definitions. It is important that every detail of the definition is applied. This ensures that data is recorded consistently, allowing for comparison over time, and national benchmarking.

Where local performance indicators are used, Business Units need to ensure that there is a clear definition established and that there are systems available to collect and report the data in an agreed format. In particular, it needs to be clear whether target and out-turn figures refer to a snapshot or cumulative position.

All performance information should have a named officer who is responsible for collecting and reporting the information. This ensures that there is consistency in the application of definitions and use of systems for providing the data. Each named officer should be kept up to date of any changes in definition that may occur from time to time.

### **4. Input**

There must be adequate controls over the input of data. Systems produced figures are only as good as the data input into that system in the first place. The aim should be 100% accuracy, 100% of the time. It is important that officers have clear guidelines and procedures for using systems and are adequately trained to ensure that information is being entered consistently and correctly.

Controls should also be in place to avoid double-counting. These should be designed according to the nature of the system, in particular where more than one person inputs data. A likely control will be an absolutely clear division of responsibility setting out who is responsible for what data entry.

The system must also record all relevant information. Individual systems need to be evaluated to determine whether additional controls are necessary. An additional control would be necessary if there is any way, theoretically, that a

relevant case could exist without being captured by the current system. There is more information about how to carry out this type of evaluation in section 9.

## **5. Verification**

Data requirements should be designed along the principle of 'getting it right first time' in order to avoid waste in the form of time and money spent on cleansing data, interfacing between different information systems, matching and consolidating data from multiple databases, and maintaining outdated systems.

Nevertheless, in complex systems, even where there are strong controls over input, errors can creep in. Where it is needed, a verification procedure should exist close to the point of data input. The frequency of verification checks will need to be aligned with the frequency of data reporting.

The simplest verification system might be a review of recent data against expectations, or a reconciliation of systems-produced data with manual input records. Depending on the complexity of the system, it might be necessary to undertake more thorough verification tasks, such as:

- Data cleansing, (e.g. to remove duplicate records or to fill in missing information)
- Sample checks to eliminate reoccurrence of a specific error, (e.g. checking one field of data that is pivotal to performance information against documentation, for a sample of cases)
- Test run of report output, to check the integrity of the query being used to extract data
- Spot checks, (e.g. on external contractor information)

It should be remembered that controls over data extend to data provided by external sources.

When entering into contracts with service providers it is essential that, wherever relevant, there is a requirement to provide timely and accurate performance information, and that we are clear with the contractor about their responsibilities for data quality and how we will be checking the information they provide.

Some important performance information is provided directly to the Council by external agencies. The initial priority of this policy is to address shortcomings in performance information provided directly by and to us, but where concerns exist about the integrity of externally-provided information, the Council's intention is to work with other agencies constructively wherever possible to provide assurance and rectify any problems identified.

Responsibility for data verification will lie within Business Units, but Internal Audit, departmental Performance staff, and Information Management teams can offer advice and guidance about verification procedures. In some cases, it might become apparent that existing procedures are not sufficient to maintain a robust control environment. The next section describes how this can be rectified.

## **6. Systems**

### ***Maintenance of systems***

Responsibility for maintaining a robust control environment for information systems lies within Business Units, but there are some corporate resources for supporting improvement in this area. It is important to have a central record of systems, to monitor the progress of the data quality strategy.

Each system should have a named officer responsible for data quality issues. The responsible officer would be required to ensure that:

- Users are adequately trained, where appropriate, by having a formal training programme which is periodically evaluated and adapted to respond to changing needs
- There is security of access/amendment
- Periodic tests of the integrity of data are undertaken
- Information management and support is available to users
- System upgrades are made where necessary (including to accommodate amendments to performance information definitions)
- The system meets managers' information needs
- Feedback from users is acted upon
- The system can produce adequate audit trails (e.g. from the information reported back to the source of information)
- Actions recommended by system reviews (e.g. by internal and external auditors) are implemented
- A set of written procedures (user guide) exists for the purpose of extracting performance information
- A business continuity plan for the system exists to protect vital records and data

There should also be a named substitute officer who can deputise in the data quality lead's absence by (at least) maintaining the day-to-day functionality of the system. Given the increasingly demanding timescale for performance reporting, the Council cannot afford to have systems lying dormant during unplanned absences. It is, therefore, also essential that written procedures are designed so that another officer can carry out the procedures essential to providing performance information if the officer who normally performs these duties is absent.

### ***Improvement of systems***

The paragraphs above detail an approach to ensure that systems data quality is maintained, but there will be systems where work has to be undertaken to rectify gaps in the control environment. To identify these systems there needs to be a co-ordinated evaluation of every information system used in the Council to produce performance information. The ICT Applications team will be responsible for maintaining a database of all systems, including:

- The identity of the data quality lead (and deputy);
- A summary of data quality and verification actions undertaken;
- Risk assessment undertaken.

There are a number of conditions that might lead to a system being considered high-risk, and every system needs to be considered against these factors. The risk-assessment will be updated annually by the ICT Applications team in consultation with Business Units. 'High risk' conditions will include:

- a high volume of data/transactions
- technically complex performance information
- definition/guidance problems identified in previous years
- inexperienced staff involved in data processing/performance information production
- a system being used to produce new performance information
- Known gaps in the control environment.

The purpose of undertaking a risk assessment is to target limited resources at the areas that require most attention. It is the responsibility of all Business Units to carry out a risk assessment and compile a co-ordinated programme of improvement (if necessary) for high-risk systems.

Responsibility for delivering the improvement plan will lie within Business Units, but support will be available from Corporate ICT and Internal Audit. Where high-risk systems have been identified for attention, the following steps will need to be taken:

- analysis of the control environment
- identification of gaps
- design of additional controls and procedures to address gaps
- preparation of an action plan
- monitoring the implementation of the action plan.

There are a number of tools that might be used to analyse the control environment, and these are detailed below

Maps of key controls show the progress of information from the input to output stages, and can be used to document the people, processes and tools that exist to ensure that expectations are met at every stage.

Another method of assessing the control environment is to write a verification checklist. This would be in the form of a series of 'yes'/'no' answers, and could be used by anyone to determine whether information flows accurately through the system.

These tools all exist to identify any weaknesses in controls (or to confirm that the control environment is robust). Once this has been undertaken systematically, gaps in the control environment will be evident, and new systems and procedures can be designed, addressing any part of the performance information production process where controls are weak. This might involve a new verification procedure, new input controls, or improved training and communication, amongst many other things.

## **7. Output**

Best use can be made of performance data if it is produced and communicated on a timetable that allows for management action. It is important that performance information is subject to scrutiny and challenge before being reported for management action. This can be undertaken at several stages in the process. The most likely instances will be either a verification check on output reports or a Business unit review meeting of performance data. There should also be close internal scrutiny of submissions to external bodies (see section 8).

## **8. Presentation**

Reporting accurate information regularly leads to good decision making and improved performance. For a large amount of performance information, performance will only be recognised publicly if it can be substantiated and verified by external bodies. There are a number of controls that need to be in place in order for this to happen. If the preceding steps are in place, stakeholders will have confidence in the information that is presented by the Council, but there are principles of presenting evidence that are necessary to avoid problems in the audit process.

During external audits, there should be at least one other officer who is able to provide advice and information on the performance information in the absence of the lead officer. This is an important control to ensure that audit work proceeds smoothly.

When information is presented for external audit, another officer must review working papers to confirm that the definition has been followed, the calculations are correct and the indicator is supported by a full audit trail.

A self-assessment form, accompanied by a full audit trail, must be compiled for any performance information presented for external audit. This needs to include:

- a calculation, cross-referenced both backwards (to the self assessment form) and forwards (to supporting information)
- system notes
- explanation of any variance from the previous year
- documentation supporting any estimates, sampling, or any apportionments made
- supporting information (e.g. spreadsheet, database, screen dumps), or at least a full description of where the supporting information is kept.

Some of these procedures are limited to indicators subject to external audit (e.g. Best Value Performance Indicators and the Continuous Performance Assessments Key Lines of Enquiry). However, there are locally set definitions for some Service Plan targets and it is necessary to ensure consistency of reporting for these indicators as well. Additionally, there are other performance indicators that are not subject to audit, but are used in performance assessments with a bearing on the Continuous Performance Assessments, and it is also essential that these are reported fairly.

Where there is no national standard to guide procedures for data collection, processing or reporting, the County Council will generate its own local standards and procedures – the Audit Commission has proposed data quality standards that will be taken into account by the County Council.

## **9. Risk Assessment**

Data quality is key to informing listings in the County Councils Risk Registers including Strategic Risks in addition to the Departmental Risk Registers. Areas of the County Council's operation that are relatively higher risk in relation to data quality include:

- A high volume of data transactions.
- Technically complex performance information definition / guidance.
- Inexperienced staff involved in data processing / performance information production.
- A system being introduced to produce new performance information.
- Known gaps in relation to relevant controls.



The Corporate Risk Management Group is recommended to review Risk Registers to ensure that these risk areas are reflected, with relevant control and mitigation. The current Risk Register includes risks relating to failure to maintain appropriate records and the business continuity risk of data loss.

## **10. Roles and Responsibilities**

Data quality is the responsibility of every employee who enters, extracts or analyses data from any of the County Council's information systems and records. Every relevant employee including supervisors, team leaders and divisional heads should be aware of the scope of his or her responsibilities for quality of data. Team Leaders and Division Heads are responsible for ensuring that adequate, safe systems holding an acceptable standard of information are developed and maintained and that performance information they provide is accurate, timely and meets the relevant guidance. They are also responsible for ensuring the implementation of corporate policy and procedures and the development of service based policies and procedures for performance information. The corporate job specifications for manager roles clearly set out expectations in relation to the management of information:

Assistant Directors and Directors have the high level responsibility for ensuring that accurate and complete records are maintained and that performance and appraisal processes are in place to maintain and enhance data and information quality for their Department.

Commitment to data quality should be clearly reflected in job descriptions for all relevant roles within the Council, ensuring that staff recognise their responsibilities as an integral part of their role and profession.

Specific responsibilities within the operation of Wiltshire County Council are:

### *Responsibilities – Information Management*

The aim of the Information Management team (located within CICTU in the Department of Resources) is to support the work of Wiltshire County Council by improving the management of information and improving the exchange of information with our partners for example, District Authorities, the Police, and the various Health Service organisations. The Team consists of six staff and their work is structured into Information and Records Management, Geographical Information and EDRMS (Electronic Document and Records Management System).

Specialist staff with a Geographical Information System brief advise on data available under the Mapping Service Agreement (MSA), data available from

other organisations, Wiltshire County Council data and providing data to contracted third parties.

### *Responsibilities – Major Services*

The Department of Community Services structure promotes a feedback link between Performance and Data Quality. The role of the recently created Data Quality team reporting to the Corporate Development Manager for DCS will be to educate and to support other staff in minimising error. Roles include oversight of statutory performance and business information and quality and training support. Referral to training, one to one support and systematic improvement monitoring will be carried out. A Service Accountant for Placements is accountable for the data integrity and management of all financial information relating to placements held on the Care in the Community Database.

The Children and Families structure now includes responsibility for data quality built into a senior level role – the Head of Performance Management for the Department of Children and Education. Again the relationship between performance and data quality is reflected in this reporting line. A Data Manager post is to be advertised as the next step in taking forward this work and the post holder will report to the Head of Performance Management in addition to two data analysts. The Information Strategy Group in DCE is chaired by the Assistant Director

### *Responsibilities – Performance Management*

The Assistant Director (Performance & Review), reporting to the Director of Resources , has overall responsibility for the production of the corporate plan and corporate performance management. The roles of key departmental performance officers (to date at March 2007) include functions in relation to all performance data (not just BVPIs): The departmental representative oversees and supervises collation of data, verification through sampling and examines variances. In addition to the results the reports include summarised statements describing the significant reasons for the performances achieved. The key Performance contacts for Departments are:

- Adult Care: Linda Coleman
- Education: Lynda Cox
- Environment: Justin Thurlow, Helen Knight
- Corporate Services: John Down

The Council's Intranet "Performance Indicator" site is continually updated to inform all employees of the latest information to enable the correct presentation of performance data.

### *Responsibilities - Web Team*

The County Council's Website Standards are good practice standards having regard to Metadata.

### *Responsibilities - Human Resources*

The HR Lifecycle team are engaged in finalising reports for Departments resulting from a corporate data cleansing exercise relating to staffing data. Monthly staffing data is also produced for Chief Officers by the HR team.

### *Member Level Responsibilities*

Performance reports and relevant inspection/audit reports are considered by Cabinet and by the Performance Scrutiny Task Group. The Task Group often looks in detail at targets and the data in support of performance against those targets.

The Performance Steering Group (including the Leader, Deputy Leader, Director of Resources and the Chief Executive) receives reports on inspections and audit, including the BVPP and data audit and reviews of performance management. This policy and action plan has been endorsed by the Performance Steering Group.

## **11. Contracts**

The County Council recognises that data quality is an important part of any contract that is outsourced to a third party to manage. This is of particular importance to public-facing service contracts where large amounts of performance data are requested by the Council from which to judge a contractor's performance.

We will ensure that all appropriate contracts where data collection and data quality are instrumental to the delivery of the service will have a standard clause inserted into the contract which defines data quality and how it should be embedded into the contractor's processes. This clause will lay out our requirement for the contractor to provide timely and accurate information and that responsibilities for data quality and checking information are clearly set out. Responsibility for the verification of data lies within the department managing the contract.

## **12. Partners**

Some important information is provided by partner organisations and other external agencies e.g. Primary Care Trust, Wiltshire Constabulary and the District Councils . It is the intention to work constructively with these organisations to provide assurance of the data quality. Any doubts about data quality should be addressed with the relevant organisation. Responsibility for data verification lies within the department receiving the information. Internal Audit can provide advice and guidance if needed.

## **13. Output and Reporting**

The Council's quality assessment processes include analytical review techniques to identify variances and potential for improvements. This is done through regular reporting with variances explained and agreed remedial action plans. Sampling of BVPI's are undertaken and high risk performance indicators are reviewed by Internal Audit.

Performance data required by external government departments and inspection bodies normally has a timetable for publication. All performance information should be available in time for management assessment and action prior to publication, in a timescale as advised by the Assistant Director, Performance and Review.

The arrangements for performance monitoring and management are well established. Corporate monitoring is quarterly, with data sent to the AD (P&R) by departmental performance officers. Performance updates are reported on a quarterly basis to Cabinet after informal review by the Performance Steering Group. Budget and service standards are monitored monthly.

Departmental benchmarking with national comparators and activities is conducted in certain areas – examples are:

- Department of Children & Education is involved in South West Special Education Needs & Regional Complaints (Children);
- Department of Community Services has joined the South West UK benchmarking group.

## **14. Data Quality Action Plan**

Implementation of the major developmental aspects of the Data Quality Strategy is through the programme and project areas listed in the Action Plan (appended). The scope of the Action Plan includes major developments only, given the very wide ranging, pervasive and detailed nature of data handling across the authority. These developments have substantive impacts across a range of service functions or generically across the authority. The programmed developments are costed within existing Departmental budgets. The main anticipated outcomes of delivering the Data Quality Action Plan overall are:

- Improved accountability for data quality issues.
- An increased awareness of data quality and its importance.
- An increased commitment to data quality by the Council.
- A strengthened performance management framework.

### *Action Plan Monitoring*

The future review, updating and delivery of this Data Quality Policy and Action Plan will be carried out through the function of the Information Management Team.

## **Relevant Reference Sources**

ICT Information Management Team

<http://wccintranet.wiltshire.gov.uk/corporate-ict-support/ict-information-management-team.htm>

[Information Management Policy Statement](#)

Electronic Document and Records Management System

<http://wccintranet/index/organisation/changeprogramme/tce/edrms.htm>

Information Management Communication Strategy

[Communication Strategy](#)

Corporate Standards – Data Protection

<http://wccintranet/index/organisation/corporatestandardsteam/corporatestandardsdataprotection.htm>

Website Standards

[Wiltshire County Council Website Standards](#)

Performance Indicators Guidance (Intranet)

<http://wccintranet/index/organisation/performance/piguide.htm>

CareFirst Integrated Children's System Procedures

<http://wccintranet/corporate-info/policies-processes-and-procedures/dce-policies-processes-and-procedures/children-and-families-integrated-childrens-system-procedures.htm>

Community Services Data Protection Information

<http://wccintranet/index/departments/dacs/departments/adultandcommunityservices/reference/dacsdataprotectioninformation.htm>

Community Services Information Sharing Protocol

<http://wccintranet/index/departments/dacs/caremanagement/dacs-caremanagement-practicestandards/informationsharingprotocol.htm>