Data Quality Policy

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Author: Stuart Hubbard, Information Governance Lead

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NHS SHETLAND DOCUMENT DEVELOPMENT COVERSHEET*

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Proposed groups to present document to:	
Clinical Care and Professional Governance Committee	

Date	**Version**	**Group**	**Reason**	**Outcome**
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Examples of reasons for presenting to the group	**Examples of outcomes following meeting**
• Professional input required re: content (PI)	• Significant changes to content required – refer to Executive Lead for guidance (SC)
• Professional opinion on content (PO)	• To amend content & re-submit to group (AC&R)
• General comments/suggestions (C/S)	• For minor revisions (e.g. format/layout) – no need to re-submit to group (MR)
• For information only (FIO)	• Recommend proceeding to next stage (PRO)

*To be attached to the document under development/review and presented to the group
Please record details of any changes made to the document on the back of this form

DATE	CHANGES MADE TO DOCUMENT
13 May 2012	Incorporate comments from Information Governance Sub Committee sub group
15 June 2012	Align with style guidelines for policy development
15 November 2012	Information Asset Register section added
28 October 2013	Incorporate comments from CSMT
May 2017	Align with Information Governance Policy refresh
June 2017	Comments Information Governance Sub Group
November 2017	Adopted by Clinical Care and Professional Governance Committee

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Version Control

Version	Date	Author	Notes
0.1	18th April 2012	S. Hubbard	First Draft
0.2	13th May 2012	S. Hubbard	Comments IG Sub Group
0.3	15th June 2012	S. Hubbard	Comments system owners and reformatted for style guidelines
0.4	15th Nov 2012	S. Hubbard	Information Asset Register Added
0.5	28th Oct 2013	S. Hubbard	Sections on training and on incident management
0.6	25th April 2014	S. Hubbard	Discussed CHP operational group
0.7	19th April 2017	S. Hubbard	Align with IG policy
0.8	23rd June 2017	S. Hubbard	Comments IG Sub Group
0.9	20th July 2017	S. Hubbard	No change required by eISG
1.0	21st November 2017	S. Hubbard	No change required by CCPGC

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1. Introduction

The recording of service user activity information is vital if the Board is to ensure continuity of care for the service user and to control risk factors. Good data quality is essential as it enables the Board to measure accurately its activities in order to plan and design future delivery of health care services.

Over and above optimum management of healthcare in Shetland, the Board is required to make frequent submission of data extracts to the Scottish Government. High quality data is paramount in this arena too otherwise the Board risks reputational damage and possible financial penalties.

This paper, therefore, describes how data quality is to be maintained with Shetland NHS Board.

2. Context

The top-level policy which covers data and how Shetland NHS Board handles it is covered in the Information Governance Policy. This policy covers a multitude of lower level policies and procedures as shown in the diagram below.

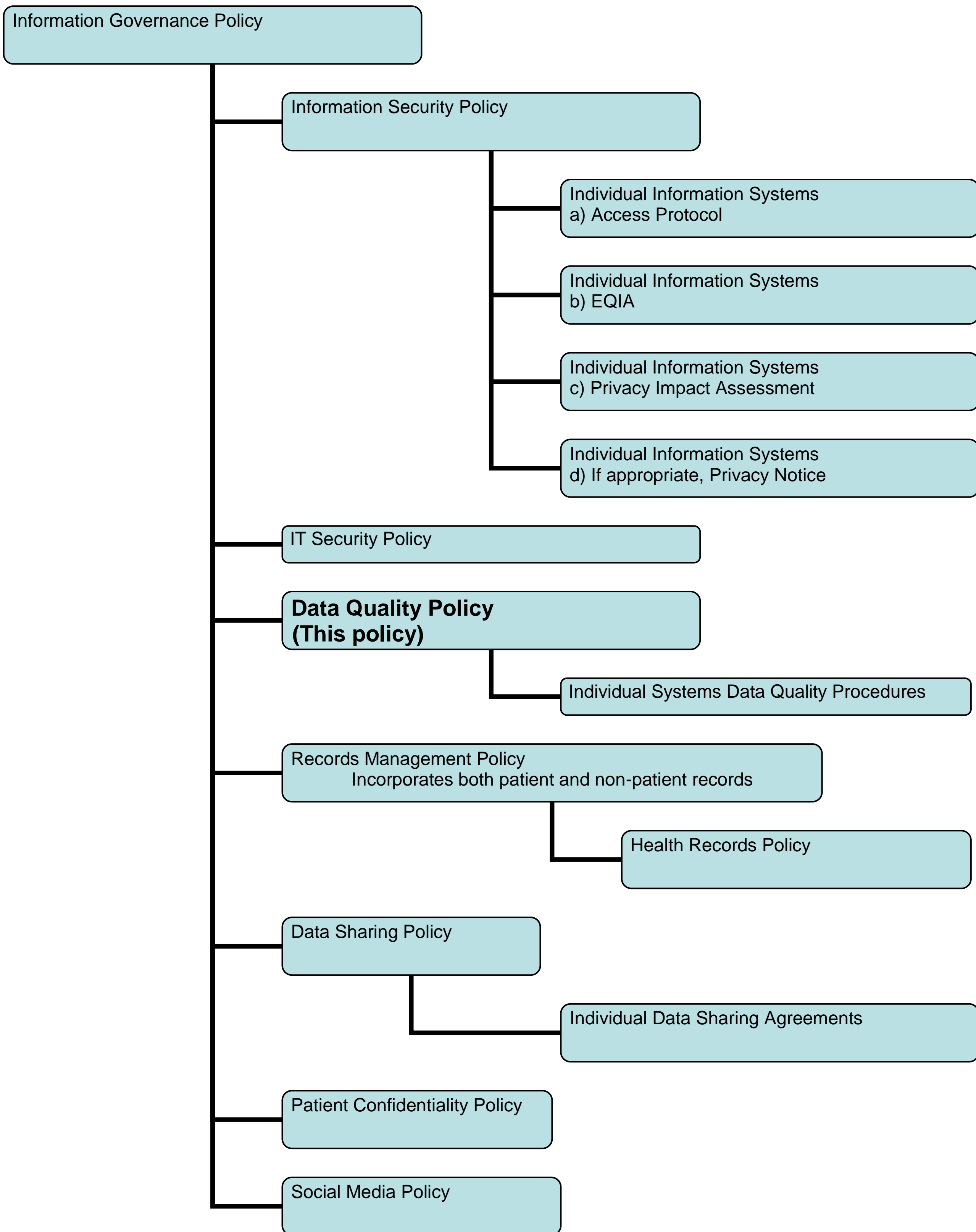
This policy - Data Quality - does not over-rule any of the principles described in the Information Governance Policy. Rather it embraces and develops those themes. The Scottish NHS gives guidance on Information Security at its website http://www.informationgovernance.scot.nhs.uk The three strands are:

- Confidentiality
- Integrity and
- Availability.

Confidentiality and availability are explored in other policies, in particular the Information Security Policy and the IT Security Policy. This Data Quality Policy explores the third strand: integrity. In this context, “Integrity” means that systems are operating to specification, are being properly interpreted by the user and hold data which are **accurate and complete**.

As described in the Information Governance Policy, data held by the Scottish NHS is subject not only to national guidance, but also to law. As far as electronically stored information is concerned, the following acts are relevant:

Data Protection Act 1998 and subsequent General Data Protection Regulations
Human Rights Act 2000
Freedom of Information (Scotland) Act 2002
Common Law
Public Records Act



Schematic describing the relationship between the policies, procedures and protocols which define NHS Shetland's approach to Information Governance.

3. Approach

The approach to data quality depends on the kind of data held. For any particular data set, the consequences of inaccuracies need to be viewed in the light of the difficulty of improving the accuracy and completeness. Clearly, shortfalls in data quality which have a direct impact on patient care will require to be addressed with the highest priority. A close second in importance would be where the reputation of the Board might be compromised.

Approaches currently in place for various systems in Shetland include:

External Audit	eg, Finance Systems, Laboratory systems, Safety and Risk
Internal Audit	eg, Finance, Information, Information Technology
Qualifications required by post	All staff will receive ongoing supervision and appraisal
Induction	Mandatory introduction to NHS Shetland on appointment
Compulsory Refresher Days	Attendance at Compulsory Refresher training is required on an 18 month cycle.
Development of Governance Policy	eg, procedures used to control access to information held in computer systems
Implementation of standard training classes	eg, when a new information system is implemented
Implementation of ad-hoc training sessions	eg, when a particular shortfall is noted in a department
Periodic standard reports	eg, to provide a baseline of activity against which deviations from usual patterns might be identified
Local audit	eg, when data held in information systems is reconciled against reality.
Data Validation at point of entry	eg, when dates might be entered out-of-sequence with other dates already in the system
Automatic system notifications	eg when a computer system pro-actively notifies an operator if a data input exceeds some tolerance

This table is not intended to be an exhaustive list. Rather system owners should use any technique available to them which improves data quality.

3.1 Systems Training for Staff

As described above, each system will have its own relevant approaches to maintaining data quality. However, for almost all systems, training will be of paramount importance; good training is key to high data quality. The way that training is delivered and refreshed will be included in the Data Quality Procedures for each of the systems as described in sections 4.3 and 6.2 below.

For electronic databases, training will be required before account credentials are issued to staff.

4. Information Asset Register

The Board will compile and maintain an Information Asset Register. This register will contain a summary of the various information assets that the Board holds. Most prominent in the register will be the large, corporate databases that the Board uses, but the register will include all databases as described further in the next section, 4.1. The purpose of the register is to enable the Board to understand the breadth of information that is held and manipulated by the Board, and to identify any risks and opportunities that might arise from that.

4.1 Scope of Information Asset Register

The Information Asset Register will hold a list of all relevant information systems. Systems will be included regardless of whether or not they are electronic systems or paper-based. Systems will be included if the data that they hold is important to the Board; inclusion is not contingent on the data being personal and under the jurisdiction of the Data Protection Act / General Data Protection Regulations. Non-personal data is also required by the Board. This requirement that the data be important to the Board will not exempt many systems because if the data were not important then there would have been little motivation to create the system in the first place. As a guide, the following categories of system will all be included, but the list is not exhaustive.

Large corporate, electronic databases that are run on behalf of the entire Scottish NHS and are hosted nationally but where at least part of the data comes under the responsibility of NHS Shetland

Electronic databases which are shared with other Boards and which are hosted in other Boards, but where at least part of the data comes under the responsibility of NHS Shetland

Electronic databases which are hosted within NHS Shetland either for exclusive use by NHS Shetland or which are shared by other Boards.

Paper filing systems which are in use within NHS Shetland

Any electronic database that is created by NHS Shetland staff using database software such as Microsoft Access, provided that the database holds data. The requirement for the database to have been created by NHS Shetland staff means that databases which are created elsewhere and sent to NHS Shetland and used for reference purposes are not included. The requirement for the database to hold data means that database packages which manipulate data held in other systems are not included

Other electronic files such as spreadsheets, word processing documents and so on will be included if the file is accessible by more than one person. Files which are for the exclusive use of a single individual are excluded

4.2 Contents of Information Asset Register

For each Asset described, the register will include the following data items:

- Name of asset
- Name of the data controller
- Name of the data processor
- Data held in the asset
- Notes on the alignment with general data protection regulations, GDPR
- A note of whether a data quality procedures document exists
- A note of the expiry date of the data quality procedures document

4.3 Data Quality Procedures Document

Each asset in the Information Asset Register will require a Data Quality Procedures document to be written as described in section 6.2. For each asset, the data owner will make their own judgement regarding the detail that is appropriate to be held within the procedure and the appropriate forum for the document to be approved. For example, a corporate database Data Quality Procedure would need to be a thorough document signed-off by eHealth and Informatics Support Group, whereas a departmental spreadsheet would justify perhaps a single sheet of notes and be signed-off by the Head of Department.

4.4 Monitoring the Information Asset Register

The eHealth and Informatics Support Group will be the formal owners of the Information Asset Register. Periodic reports from the register will be discussed at the eHealth and Informatics Support Group.

The register itself will take the form of a database stored on a network filing system. The network share will allow access, either view or update, to members of the eHealth and Informatics Support Group. This database itself will perforce have its own record within the database and will itself be subject to the Data Quality Policy

The Information Asset Register will be maintained on a day to day basis by Information Department with oversight from the Information Governance Sub Committee of the Information Support Group

5. Responsibilities.

5.1 Chief Executive

The Chief Executive has overall responsibility for patient safety, governance and performance management, and is accountable to the Board and to the Scottish Government.

5.2 eHealth and Informatics Support Group, eISG

The eISG takes the lead role in the implementation of Information Governance policies and procedures; it reports to the Clinical, Care and Professional Governance Committee
The eISG also commissions and monitors all information systems run by the Board
For systems run on behalf of the Board, the eISG takes responsibility for that data held on those systems.

The eISG ensures that systems which link with other agencies such as local government, other Health Boards, Scottish Government, etc also operate within the limits described in the Governance Polices.
The eISG holds the Information Governance Sub Committee which advises eISG on policy and procedures relating to Information Governance. All members of the sub committee will be appropriately trained in Information Governance to Scottish Credit and Qualifications Framework (SCQF) level ten

5.3 Risk Management Group
The Risk Management Group holds and monitors all risks, and manages those risks and their impact on the Board's activities. The Group has a wider remit than Information Governance, but it does include risks associated with Information Governance and Information Systems.

5.4 Joint Governance Group
The Joint Governance Group was formed towards the end of 2014 following a review of the governance arrangements in place within NHS Shetland and with a view to the integration of Health and Social Care. This group has been established to oversee and support the implementation of clinical governance throughout NHS Shetland and the Local Authority, Community Health & Social Care. The group reports directly to the Clinical, Care and Professional Governance Committee.

5.5 Senior Information Risk Owner
The Senior Information Risk Owner, SIRO, is an executive director with overall responsibility for information risk across NHS Shetland.

5.6 Caldicott Guardian
The Caldicott Guardian is an executive director responsible for protecting the confidentiality of patient and service-user information. The Caldicott Guardian will authorise appropriate information sharing both between NHS Shetland and external organisation and also within NHS Shetland itself.

5.7 Information Governance Lead
The Information Governance Lead takes the lead in the development of Information Governance policies and reports to the eHealth and Informatics Support Group. The post sites in the Information Department. The Information Governance Lead chairs the Information Governance Sub Committee of the eHealth and Informatics Support Group.
The Information Governance Lead will maintain the Information Asset Register.

5.8 Information Asset Owners
The Information Asset Owners will be responsible for creating and maintaining the Data Quality procedures for their assets.

5.9 IT security officer
The IT security officer, a post held within the role of Head of eHealth and IT, is responsible for (in the language of section 2) data availability. The responsibilities of the role are described in detail in the IT Security Policy

5.10 Records Management Plan Project Manager
The Records Management Plan Project Manager is operationally responsible for corporate records providing guidance regarding corporate records management practices and for

developing and implementing a Records management Plan that will enable NHS Shetland to improve the quality of its records management processes and be fully compliance with the current legislative framework.

5.11 Health Records and Clinical Coding Manager
The Health Records and Clinical Coding Manger has oversight of all patient records held by the Board. The responsibilities of the role are described in detail in the Health Records Policy.

5.12 Records champions
Records champions are individuals at department level who are responsible for advocating best practice in records management. This requirement arises through NHS Shetland's approach to the Public Records Act, but the overlap between best practice in records management and best practice in Information Governance is sufficient that the records champions have opportunities to enhance governance issues.

6. Individual System Data Quality Procedures.

Each information asset listed in the Information Asset Register will have its own Data Quality Procedures document which will describe how data quality in its data is maintained and assured. There will be general principles and specific approaches as described in sections 6.1 and 6.2 below.

6.1 General Principles

6.1.1 All staff will conform to legal and statutory requirements and recognised good practice with regard to data quality and will strive towards 100% accuracy across all information systems.

6.1.2 All data collection, manipulation and reporting processes will be covered by clear procedures and which are regularly reviewed and updated

6.1.3 All staff must be made aware of the importance of good quality data and their own contribution to achieving it and should receive appropriate training

6.1.4 Teams must have comprehensive procedures in place for identifying and correcting data errors

6.2 Procedures specific to the various Information Systems

Different information systems have different approaches to data quality according to their particular requirements. Each area has a procedure which defines the day-to-day approach.

For each information system there must be a document which gives explicit instructions on how data quality is to be maintained. Necessarily, each of these will be specific to its own area. Each should cover:

Normal procedures to ensure that the data is accurate
Normal procedures to ensure that the data is complete

Normal procedures to ensure that the data is consistent
Normal procedures to ensure that the data is up to date
Procedures to highlight data corruption
Training requirements and opportunities
Normal System Audit
System audit opportunities available during investigations
Business Continuity working during IT failure
Handling Data-Set-Change Notifications from Government

Some individual systems may have additional areas according to the peculiar requirements that relate to its specific instance.

This Data Quality Policy applies to all electronic systems which hold data. However, some of these are much more important than others in terms of the breadth of use across the organisation and in terms of the consequences of poor data quality. The detail of documentation of the various databases is expected to be concordant with the magnitude of the system. Likewise the diligence towards maintaining high data quality must also be commensurate with the value of the data: the major patient administration systems in use in primary and secondary care will command a more thorough approach than a small stand-alone database in use by a single individual.

6.3 Individual System Procedures non-compliance

Each individual system data quality procedures document must include a section on non-compliance, and the approach that the system owner will take to addressing such issues. Ultimately the system owner may invoke either the Managing Conduct or Capability policy.

7. Alignment with legislation

7.1 Public Records Act 2011
There is substantial overlap between records management and information governance. Good practice in Records Management will inevitably improve Information Governance, and good Information Governance will inevitably improve Records Management. Each of these two strands of work should therefore be seen in the context of the other. Records Management is covered in the Records Management Policy which, like this Data Quality Policy, sits underneath the Information Governance Policy.

Shetland's approach to the Records Management Policy is informed by the Public Records Act 2011, and NHS Shetland Records Management Plan. In line with the keeper's requirements, the Records Management Plan explicitly requires NHS Shetland to hold several key documents; notably the Information Governance Policy, Records Management Policy and Information Asset Register.

For NHS Shetland, this Data Quality Policy holds the instruction for the organisation to create and maintain an Information Asset Register, and is therefore an essential component in NHS Shetland's compliance with the Act.

7.2 General Data Protection Regulation

Policies drafted previously have all been aligned with their relevant legislation; in the area of Information Governance this has been most importantly the Data Protection Act. On 25th May 2018 this legislation will be overtaken by the General Data Protection Regulation, GDPR. GDPR covers similar ground to the DPA, but goes further in some areas, for example with regard to subject consent, in the context of the NHS, patient consent. This policy anticipates the arrival of that legislation; it incorporates already the GDPR's requirements

8. Glossary

Information Governance. This is the term used to describe the overall approach taken by the Board to the way that it handles information. This embraces all information: not just that held electronically and not just that relating to patients.

Information Security. This is the term used to describe how the Board ensures that information is confidential, is available and has integrity. Confidential means that information should not fall into the wrong hands. Available means that appropriate staff may view and edit the information in a timely fashion. Integrity means that the data is complete, accurate and internally consistent.

EQIA, Equalities Impact Assessment. This is an assessment made of any Board policy which determines if the policy would have different impacts on different groups. For groups relating to ethnicity, gender, age, sexual orientation the policy would be required to demonstrate that adequate controls are in place to avoid any discrimination

PIA, Privacy Impact Assessment. This is an assessment made of any Board policy which determines if any individual's privacy might be compromised by the policy. Whilst this is primarily directed towards patient privacy, it applies also to other groups such as staff, patient's relatives, patient's carers.

Privacy Notice. This is a document that describes how information about individuals might be processed by the Board. Typically this will relate to patient information, and may take the form of a publicly displayed poster or pamphlet, but it may relate to other groups of individuals.

Annex

Staff in post as at November 2017

Senior Information Risk Owner	Colin Marsland
Caldicott Guardian	Mr Gilbert Ozuzu
Information Governance Lead	Stuart Hubbard
Records Management Officer	Pete Gaines
Information Security Officer	Craig Chapman
Records Management Plan Project Manager	David Morgan

1. Rapid Impact Checklist NHS Shetland

An Equality and Diversity Impact Assessment Tool:

Which groups of the population do you think will be affected by this proposal? :

- Minority ethnic people (incl. Gypsy/travellers, refugees & asylum seekers)
- Women and men
- People with mental health problems
- People in religious/faith groups
- Older people, children and young people
- People of low income
- Homeless people
- Disabled people
- People involved in criminal justice system
- Staff
- Lesbian, gay, bisexual and transgender people

All people who have electronic records will be affected by this policy. However, the effect will not be because of their membership to any particular group. All records require to be of the highest quality possible regardless of membership of any equality group.

N.B The word proposal is used below as shorthand for any policy, procedure, strategy or proposal that might be assessed	What positive and negative impacts do you think there may be? Which groups will be affected by these impacts?
What impact will the proposal have on lifestyles? **For example, will the changes affect:** • Diet and nutrition • Exercise and physical activity • Substance use: tobacco, alcohol and drugs? • Risk taking behaviour?	Application of the policy is applicable to all patients, staff and suppliers. The effectiveness of any work done by the Board relating to any specific lifestyle area will be contingent on high quality data. As such, improvements to Data Quality guided by this policy will increase any effectiveness.

• Education and learning or skills?	
Will the proposal have any impact on the social environment? Things that might be affected include: • Social status • Employment (paid or unpaid) • Social/Family support • Stress • Income	Application of the policy is applicable to all patients, staff and suppliers. The effectiveness of any work done by the Board relating to any specific lifestyle area will be contingent on high quality data. As such, improvements to Data Quality guided by this policy will increase any effectiveness.
Will the proposal have any impact on the following? • Discrimination? • Equality of opportunity? • Relations between groups?	Accurate information held within the data systems will be central to monitoring service provision for any possible discrimination. For patients this means that service provision can be correlated with ethnicity and geographical isolation. For staff it means not only ethnicity but also sexual orientation, age and disability. Audit of equality of treatment might be by the local NHS Board or might be by National Government.
Will the proposal have an impact on the physical environment? For example, will there be impacts on: • Living conditions? • Working conditions? • Pollution or climate change? • Accidental injuries or public safety? • Transmission of infectious disease?	This policy of itself does not have any impact on the environment, however individual working procedures required by this policy that cover those areas will have an impact. For example, the Datix system will have a direct impact on accidental injuries and public safety. The effectiveness of the impact is wholly dependent on the information holding data of the highest quality practicable.
Will the proposal affect access to and experience of services? For example,	

• Health care • Transport • Social services • Housing services • Education	Better understanding of the activities of the Board will lead to all areas of the Board's activity. High Quality Data is a pre-requisite to effective planning at both local and at national level. For some data systems, a strategy used to address data Quality issues might be through retrospective audit. For systems which are used to collate information on patient care, some knowledge of some aspects of the patient's record will become known to the auditor, and this represents a lessening of the confidentiality that the patient has a right to expect. It is expected that the design of any such audits will evaluate the benefits of the audit in the context of the loss of confidentiality most likely with the advice of the Caldicott Guardian. Strategies might include, for example, sight of records only with the name removed, examination of anonymised totals rather than discrete records, and so on.

Rapid Impact Checklist: Summary Sheet

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Positive Impacts (Note the groups affected)

Impacts in different individual systems will relate to different groups of individuals.

Patients
1. More accurate record keeping will enhance the current episode and future episodes of care for the patient
2. Accurate demographic records plays into the national agenda to monitor equality of provision of health care across, for example, different ethnicities and different geographical regions
3. Accurate record keeping will enable local staff and national government to focus resources where most needed
4. Accurate record keeping is a pre-requisite to maintain the confidence and respect of patients

Staff
5. More accurate record keeping will facilitate good employee-employer relations
6. Accurate demographic recording plays into the national agenda to monitor equality of opportunity across the health service for staff with different ethnicities, sexual orientations, age bands

Suppliers
7. Accurate record keeping in finance is vital to maintain the reputation of the Health Board with business partners

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Negative Impacts (Note the groups affected)

Patients. Some details of patients' episodes of care will be revealed to audit staff. This is a minor breach of confidentiality, albeit one whose intent is to improve patient care and to staff who are in any event under a duty of confidentiality to the patient.

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Additional Information and Evidence Required

The Data Quality Policy is written in the context of the Information Governance Policy, and all consultation of that policy cascades to this policy.

Consultation on the draft of the Data Quality Policy was made with reference to the following groups: Information Support Group, Information Governance sub committee of the

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Information Support Group, representatives of the major information systems in use within Shetland NHS.
Recommendations 1. The Board should set out a programme of work to identify all of the information systems in use across the Board. 2. The Board should progressively adopt written procedures for each information system in use. The complexity of these procedures should be commensurate with the stature of the system in question. Each of these procedures should include a strategy for monitoring data quality and improving quality issues
From the outcome of the RIC, have negative impacts been identified for race or other equality groups? Has a full EQIA process been recommended? If not, why not? .Not recommended. The policy is designed to apply equally to all data subjects. All of the positive and negative impacts apply equally regardless of membership of any equality group.