



**Nottingham and
Nottinghamshire**
Integrated Care Board

Data Quality Policy

July 2022 - July 2024

CONTROL RECORD			
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			Team System Analytics and Intelligence Unit
Title	Data Quality Policy		
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Purpose	The Policy sets out data quality requirements of the ICB for maintaining and increasing high levels of data quality.		
Superseded Documents	Data Quality Policy v1.0		
Audience	All employees and appointees of the Nottingham and Nottinghamshire ICB and any individuals working within a temporary capacity.		
Consulted with	None		
Equality Impact Assessment	Complete (see Appendix A)		
Approving Body	ICB Board	Date approved	1 July 2022
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1. Introduction

- 1.1 This policy applies to the Nottingham and Nottinghamshire Integrated Care Board, hereafter referred to as 'the ICB'.
- 1.2 The ICB recognises that reliable information is fundamental in supporting the ICB to achieving its goals. The ICB works to a framework for handling personal information in a confidential and secure manner to meet ethical and quality standards. The ICB recognises that all the decisions, whether healthcare, managerial or financial need to be based on information which is of the highest quality.

2. Purpose

- 2.1. The purpose of this document is to set out a clear policy framework for maintaining and increasing high levels of data quality within the ICB. The way in which data is collected and analysed can influence the results and it is, therefore, important to have a clear and open framework in place which supports this process and accurately reflects the practice of the ICB in the discharge of its functions. This Data Quality Policy sets out how the ICB will collect, analyse and report data.

3. Objectives

- 3.1. The Data Quality Policy underpins the ICB's objective to record and present data of the highest possible quality and that all users of the information can be confident about its accuracy. Furthermore the ICB recognises that a significant number of data sets it uses are supplied by other organisations and in order to make sound and informed decisions the quality these data must be verified wherever possible.

4. What is Data Quality?

- 4.1 Data quality is the ability to supply accurate, timely and complete data, which can be translated into information, whenever and wherever it is required. Data quality is vital to effective decision making at all levels of the organisation.
- 4.2 Supplying accurate data is a complicated task for a number of reasons:
 - There are many ways for the data to be inaccurate – data entry errors and incomplete data, etc.
 - Data can be corrupted during translation depending on who is translating it, how and with what tools/processes.
 - Data must relate to the correct time period and be available when required.
 - Data must be in a form that is collectable and which can subsequently be analysed.

4.3 To ensure an organisation achieves a high standard of data quality, it must set out how:

- Data is collected and co-ordinated.
- Data is transferred between systems.
- Data is organised.
- Data is analysed.
- Data is interpreted.
- Conclusions and results drawn from the data are validated.

4.4 The following principals are used in assessment of data quality:

- **Accuracy:** Is the data correct and is it valid?
- **Accessibility:** Can the data be readily and legally collected?
- **Comprehensiveness:** Is the relevant data collected and are any data omissions (where intentional or otherwise known) documented.
- **Consistency:** Are clear and accurate data definitions implemented and adhered to? Do the data definitions define what level of detail is collected?
- **Validity:** Is the data up-to-date?

5. Structure and Scope

5.1 This policy is intended to cover the collection, recording, validation, further processing and reporting of all types of reference information generated and used within, or reported externally by, the ICB. It describes the necessary features of systems to manage such information and the supporting administrative, reporting and training arrangements to ensure the information is of consistently high quality.

5.2 Written procedures will be available in all relevant locations within the ICB to assist staff in collecting and recording data. These procedures will be kept up-to-date, and where appropriate will also contain information relating to national data definitions.

5.3 Processes will be established to ensure compliance with the procedures, which will include sample checks to audit compliance.

5.4 It should be noted that all collection, storage, processing and reporting of personal information is governed by detailed legal requirements under the European General Data Protection Regulations (2016), the UK Data Protection Act (2018) and associated NHS standards, such as the Caldicott guidelines.

- 5.5 As the ICB generates a very wide range of information for a whole variety of uses, this policy does not provide detailed guidance for specific data items or individual areas of application. It concentrates instead on the general principles of completeness, accuracy, ongoing validity, timeliness, consistency of definitions and compatibility of data items, and signposts where specific procedures or further guidelines need to exist.
- 5.6 This policy recognises that a range of data processed by, but not generated by, the ICB. For example the Secondary User Service (SUS) data submitted nationally by providers for the purposes of secondary care monitoring is generated by healthcare providers. In such circumstances this policy recognises the ICB role in validating data rather than correcting any underlying processes in collection, classification or coding.

5.7 General Principles

The following overarching principles underpin the approach to data quality:

- All staff will conform to legal and statutory requirements and recognised good practice, aim to be significantly above average on in-house data quality indicators, and will strive towards 100% accuracy across all information systems.
- All data collection, manipulation and reporting processes by the ICB will be covered by clear procedures which are easily available to all relevant staff, and regularly reviewed and updated.
- All staff should be aware of the importance of good data quality and their own contribution to achieving it, and should receive appropriate training in relation to data quality aspects of their work.
- Teams should have comprehensive procedures in place for identifying and correcting data errors, such that information is accurate and reliable at time of use.

6. Responsibility and Accountability

- 6.1. Data quality is a key part of any information system that exists within the ICB. All staff members will be in contact at some point with a form of information system, whether paper or electronic. As a result, all staff members are responsible for implementing and maintaining data quality and are obligated to maintain accurate information legally (Data Protection Act), contractually (contract of employment) and ethically (professional codes of practice).
- 6.2. Accountability for an individual dataset may change during business process but the team designated as the key team, has overall responsibility for any data quality issues to date.
- 6.3. In the event of there being no identified key team, then the team responsible for any errors will be responsible for rectifying them.

- 6.4. It is the responsibility of all managers to ensure that, where appropriate, systems are in place to validate the completeness, accuracy, relevance and timeliness of data/information. Managers must ensure that all staff are fully aware of their obligations in this area. In certain circumstances, to support equality and diversity, line managers will need to consider individual requirements of staff to support good practice in complying with this policy.
- 6.5. Ultimate responsibility for maintaining accurate and complete data and information lies with the Chief Executive but all staff who record information, whether on paper or by electronic means, have a responsibility to take care to ensure that the data is accurate and as complete as possible. Individuals with responsibility for data quality must have this clearly stated in their job descriptions.
- 6.6. All information assets of the ICB should be identified and have a nominated Information Asset Owner (IAO). Accountability for information assets helps to ensure that appropriate protection is maintained. The Senior Information Risk Owner (SIRO) ensures owners are identified for all Information Assets with responsibility for managing the risks to those assets. Whilst responsibility for implementing and managing Information Asset controls may be delegated to Information Asset support staff or equivalent, accountability should remain with the nominated owner of the asset.

Role	Responsibilities
Chief Executive	Has overall responsibility for ensuring that information risks are assessed and mitigated to an acceptable level. Information risks should be handled in a similar manner to other major risks such as financial, legal, and reputational risks.
Senior Information Risk Owner (SIRO)	Is accountable to the Chief Executive and provides the focus for the assessment and management of information risk at the Integrated Care Board level, providing briefings and reports on matters of performance, assurance and cultural impact. The SIRO should oversee a review of the ICB Information asset register to ensure it is complete and robust
Information Asset Owners (IAO) Director/Department Heads	Each Information Asset Owner should be aware of what information is held, and the nature and justification of information flows to and from the assets they are responsible for. The IAOs must understand and address risks to the information

Role	Responsibilities
	assets they 'own' and provide assurance to the SIRO on the security and use of these assets
Information Asset Support Staff/Operational staff responsible for one or more assets.	Provide support to their IAO. Ensure that policies and procedures are followed. Recognise potential or actual security incidents. Consult their IAO on incident management to ensure that information asset registers are accurate and maintained.
All Staff	<p>Individual staff members are responsible for the data they record or enter onto any ICB information system. Data must be entered carefully and checked. Following defined procedures and best practice as well as taking care when entering data will significantly reduce mistakes and other simple errors.</p> <p>All members of staff are responsible for ensuring any identified errors are reported to the system manager using the data quality procedures in place.</p> <p>All members of staff should ensure that they are familiar with the content of this policy and other relevant information governance policies and procedures. An up-to-date list of documents will be made available on the information governance intranet page.</p>

7. Data Quality Standards

7.1 Although there are many aspects of good quality data, the key indicators commonly are:

- **Validity** – All data items held on the ICB computer systems must be valid. Where codes are used, these will comply with national standards. Wherever possible, computer systems will be programmed to only accept valid entries at data input. Data accuracy is the direct responsibility of the person inputting the data supported by their line manager. Systems will include validation processes at data input to check in full or in part the acceptability of the data wherever possible. Depending on the system, later validation may be necessary to maintain referential integrity.

- **Completeness** – All mandatory data items within a dataset should be completed. Use of default codes will only be used where appropriate, and not as a substitute for real data.
- **Consistency** – Correct procedures are essential to ensure complete data capture.
- **Coverage** – this reflects all information that is ‘owned’ by the ICB, including paper and computerised records.
- **Accuracy** – Data recorded manually and on computer systems must be accurate.
- **Relevance** – Information should be contextually appropriate.

8. Validation Methods

8.1 The ICB recognises the importance of differentiating between those data which the ICB has direct control of, for example where ICB staff input directly into their own systems, and those data where the ICB is the recipient under the requirements of a contract, for example the supply of retrospective health events data for its patients treated at a hospital, or aggregate data provided to summarise delivery of a performance standard.

8.2 Where the ICB is in direct control of data entry:

- That process should be well-defined;
- The structure of data designed to reduce the risk of errors either through the data model or through the design of the user interface.
- Regular spot checks should be undertaken by staff members; which involve analysis of a random selection of records against source material, if available.
- Spot checks should be done on an on-going basis (defined by the Information Asset Owner) to ensure the quality of data is maintain and, where necessary, improved.

8.3 The ICB routinely receives activity information from its service providers. This information is used to monitor the performance of contracts and to contribute to the service planning and development process. Sufficient and appropriate checks are made by the service providers to ensure that the information received is accurate and complete. Where data falls outside anticipated ranges a more detailed evaluation and validation is undertaken.

- 8.4 The ICB conduct regular meetings with its partners and service providers, to ensure that any data discrepancies are picked up and any corrections are made as required.
- 8.5 Where the ICB receives data from other organisations it should:
- Encourage a culture of routine data validation comparing counts of new records against old ones, ensuring no missing cohorts by age, gender, etc.
 - Cross-check data against alternative sources
 - Release the data early (with caveats) to be viewed by domain experts
- 8.6 When presenting data:
- Highlight noise when interpreting data e.g. by including confidence intervals
 - Prefer standardised data (balancing age and gender and where possible deprivation) to raw rates.
 - Clarify the source of data (e.g. does A&E data refer to ED, eye casualty, WICs?)
 - Highlight missing data
 - Take care to rule out known biases e.g. due to seasonality, regression to the mean when analysing well performing or poorly performing cohorts over time.
- 8.7 On submission of data returns, procedures will exist to ensure the completeness and validity of the data sets used. This can be done by comparing to historical data sets, looking at trends in the data and also by cross checking the data with other staff members.
- 8.8 The ICB will endeavour to ensure that timescales for submission of information are adhered to, and that the quality and accuracy of such submissions is of the highest standard. Internal deadlines for the completion of data sets, to ensure national timescales are achieved, will be explicit and monitored.
- 8.9 The ICB will document the processes for data validation as Standard Operating Procedures and ensure relevant staff use and maintain these.

9. Data Dictionary Change Notices (DDCNs)

- 9.1 Data Dictionary Change Notices (formerly Information Standard Notices and Data Set Change Notices) are issued by the Health and Social Care Information Centre. These give notification to NHS healthcare agencies of changes to information requirements that will be included as appropriate in the NHS Data Dictionary & Manual and thereby ensuring that data is meaningful across NHS Organisations over time.
- 9.2 The ICB will monitor the publication schema for DDCNs and ensure all DDCNs relevant to the ICB are actioned appropriately. Furthermore the ICB will ensure that the existence of key DDCNs is notified to relevant provider organisations.

10. Equality and Diversity Statement

- 10.1. The Nottingham and Nottinghamshire ICB pay due regard to the requirements of the Public Sector Equality Duty (PSED) of the Equality Act (2010) in policy development and implementation, as a commissioner and provider of services as well as an employer.
- 10.2. The ICB is committed to ensuring that the way we provide services to the public and the experiences of our staff does not discriminate against any individuals or groups on the basis of their age, disability, gender identity (trans, non-binary), marriage or civil partnership status, pregnancy or maternity, race, religion or belief, gender or sexual orientation.
- 10.3. We are committed to ensuring that our activities also consider the disadvantages that some people in our diverse population experience when accessing health services. Such disadvantaged groups include people experiencing economic and social deprivation, carers, refugees and asylum seekers, people who are homeless, workers in stigmatised occupations, people who are geographically isolated, gypsies, Roma and travellers.
- 10.4. As employers, we are committed to promoting equality of opportunity in recruitment, training and career progression and to valuing and increasing diversity within our workforce.
- 10.5. To help ensure that these commitments are embedded in our day-to-day working practices, an Equality Impact Assessment has been completed for, and is attached to, this policy.

11. Communication, Monitoring and Review

- 11.1 The Data Quality Policy will be highlighted to new employees at staff induction and is stored on the ICB's Intranet pages.
- 11.2 The ICB, will as a matter of routine, monitor performance in collecting and processing data according to defined standards, and provide appropriate feedback to staff involved in the process of data collection.
- 11.3 The ICB is regularly audited to ensure that:
 - Applicable legislative Acts are complied with
 - NHS and ICB Policies and Standards are complied with
 - Suitable processes are used, and controls put in place, to ensure the completeness, relevance, correctness and security of data are achieved.
- 11.4 The SIRO will have overall responsibility for implementing the Policy ensuring that the following action is taken:

- That the relevant Committee review the policy, periodically every three years, in accordance with the published review date so that it continues to reflect best practice and the legal and business needs of the ICB;
- Monitoring and audit to be identified and completed at appropriate intervals.

12. Staff Training

12.1. Staff will receive instruction and direction regarding Data Quality advice and information from a number of sources:

- ICB Policies and Procedure Manuals
- Line manager
- Information Governance specialists
- Other communication methods (e.g. team meetings)
- ICB Intranet.

12.2 Training needs are assessed and agreed during induction and appraisal processes.

12.3 Any individual who has queries regarding the content of this policy, or has difficulty understanding how this policy relates to their role, should contact the head of Data Management.

13. Interaction with Other Policies

13.1. This policy should be read in conjunction with the following:

- Records Management Policy
- Information Security Policy
- Confidentiality and Data Protection Policy
- Freedom of Information Policy
- Information Governance Management Framework.

14. References

14.1 Legal framework:

- Data Protection Act (2018)
- Data Protection (Processing of Sensitive Personal Data)
- (Elected Representatives) Order (2002)

- Freedom of Information Act (2000)
- Environmental Information Regulations (2004)
- Human Rights Act (1998)
- Criminal Justice and Immigration Act (2008)
- European General Data Protection Regulations (2016).

14.2 Codes of Conduct and Practice:

- Integrated Care Board controlled documents:
- Confidentiality: Staff Code of Conduct
- Code of Practice for the Management of Records
- Staff Conditions of Contract

14.3 External documentation

- British Standards ISO 27001:2005, ISO 27002:2005
- Records Management: NHS Code of Practice, parts 1 & 2: April 2006
- Section 46, Freedom of Information Act (2000), Code of Practice for the Management of Records. (Department of Constitutional Affairs)
- The NHS Confidentiality Code of Practice (Guidelines on the use and protection of patient information, November 2005)
- The Good Practice Guidelines for GP electronic patient records - version 4 (2011).

Appendix A: Equality Impact Assessment

Date of assessment:	June 2022			
For the policy, and its implementation, please answer the questions against each of the protected characteristic and inclusion health groups:	Has the risk of any potential adverse impact on people in this protected characteristic group been identified, such as barriers to access or inequality of opportunity?	If yes, are there any mechanisms already in place to mitigate the adverse impacts identified?	Are there any remaining adverse impacts that need to be addressed? If so, please state any mitigating actions planned.	Are there any positive impacts identified for people within this protected characteristic group? If yes, please briefly describe.
Age¹	No	N/A	N/A	This policy provides guidance, accountability and clarity on data quality and validation processes.
Disability²	Yes	Mechanisms are in place via the Communications and Engagement Team to receive the policy in a range of languages, large print, Braille, audio, electronic and other accessible formats.	No	
Gender identity (trans, non-binary)³	No	N/A	N/A	
Marriage or civil partnership status⁴	No	N/A	N/A	

¹ A person belonging to a particular age (for example 32 year olds) or range of ages (for example 18 to 30 year olds).

² A person has a disability if she or he has a physical or mental impairment which has a substantial and long-term adverse effect on that person's ability to carry out normal day-to-day activities.

³ The process of transitioning from one gender to another.

⁴ Marriage is a union between a man and a woman or between a same-sex couple.

Same-sex couples can also have their relationships legally recognised as 'civil partnerships'.

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Pregnancy or maternity⁵	No	N/A	N/A	
Race⁶	No	N/A	N/A	
Religion or belief⁷	No	N/A	N/A	
Gender⁸	No	N/A	N/A	
Sexual orientation⁹	No	N/A	N/A	
Carers¹⁰	No	N/A	N/A	

⁵ Pregnancy is the condition of being pregnant or expecting a baby. Maternity refers to the period after the birth, and is linked to maternity leave in the employment context. In the non-work context, protection against maternity discrimination is for 26 weeks after giving birth, and this includes treating a woman unfavourably because she is breastfeeding.

⁶ Refers to the protected characteristic of race. It refers to a group of people defined by their race, colour, and nationality (including citizenship) ethnic or national origins.

⁷ Religion refers to any religion, including a lack of religion. Belief refers to any religious or philosophical belief and includes a lack of belief. Generally, a belief should affect your life choices or the way you live for it to be included in the definition.

⁸ A man or a woman.

⁹ Whether a person's sexual attraction is towards their own sex, the opposite sex, to both sexes or none. <https://www.equalityhumanrights.com/en/equality-act/protected-characteristics>

¹⁰ Individuals within the ICBs which may have carer responsibilities.