



DATA & INFORMATION MANAGEMENT

Data and the information generated from that data is the oil that keeps the NHS engine moving. When issues with data arise, it isn't just a data problem, it has a direct impact on patients, their care and costs for providing that care.

The access to and sharing of data remains a significant challenge as integrated care continues to be adopted and used on a daily basis. However, the quality of the data being shared and how it is used for decision making also creates challenges that are often given a lower priority than they should.

It is sometimes forgotten that in the drive to share data and develop data lakes for the purposes of supporting better care planning and decision making, that bringing poor quality data together with good quality data simply pollutes the whole.

Additionally, using poor quality data for analytics or for training artificial intelligence platforms will lead to errors and inaccuracies. The old adage of "garbage in, garbage out" has never been more important or relevant than for data in digital health.

Populo's services associated with Data and information management cover the entire spectrum from patient and clinical data through to financial and activity data linked to commissioning and statutory reporting such as RTT.

1. Data Quality

Data quality remains one of the single largest challenges to delivering effective and safe care for patients. Whether through incorrect entry or errors generated by systems, data quality is often eroded over time or at the time of moving from one system to another. Poor data quality can mean interruptions in patient care through inaccurate scheduling through patients still being left checked into systems when they have already been discharged. Failures in reporting and loss of income from activity being missed can also lead to significant losses in income for a Trust.

2. Data Migration

Data migration is often completely underestimated and left as an afterthought. It is estimated that >43% of issues with EPR go lives are associated with data migration, so it should be taken very seriously in its own light. As well as the potential risks, both clinical safety and operational, there is a often a significant financial costs that needs to be built into total cost of ownership in business cases when procuring and implementing a new system. Data migration also needs to consider testing and reporting strategies and well as duplication, merges and what levels of clinical data is required are required to be migrated as well as what options are available to access archived data post migration.



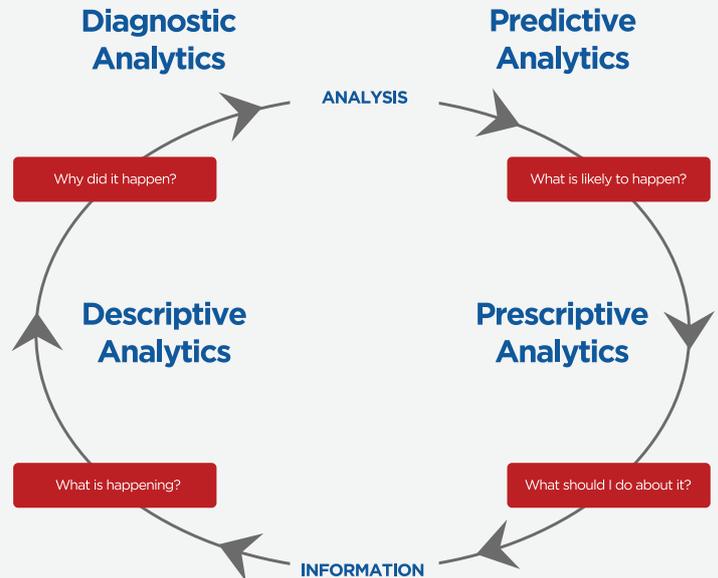
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3. Analytics, Business Intelligence, AI and Big Data

The ability to use data to create meaningful information and evidence for decision making is a core requirement in utilising data effectively in the delivery of care for patients. It is important to be aware of the different types of analytics and how they are used.

- Descriptive Analytics uses data aggregation and data mining to provide insight into the past to answer “What has happened?”
- Diagnostic Analytics is used to identify root causes for events and answers “Why did it happen”
- Predictive Analytics uses statistical models and forecasts techniques to understand the future to answer “What could happen?”
- Prescriptive Analytics uses optimisation and simulation to advise on possible outcomes to answer: “What should we do?”.



Development of reports, dashboards, advice of development and management of data warehouses and data lakes and how AI (Applied Intelligence and Artificial Intelligence) can be used with large datasets and modelling on big data.

4. RTT and Statutory Reporting

Audits and plans to remedy issues with RTT and statutory reporting including data correction, verification and validation. Reviews and remedial action plans and quality improvement frameworks for CQUIN, QIPP, NHS Outcomes Framework and Compliance with NHS information governance.

5. PLICS

Virtually all NHS Trusts have moved or are moving to patient level costing as part of how activity is reimbursed and managed with commissioners. Within this there is a variety of aspect including revenue recovery, revenue opportunity management and tariff negotiations and amendments.

6. Archiving

Archival options (local, hybrid and cloud), proprietary versus vendor neutral archives, data standards, integration of archive in workflows and system design, clinical and operational design, planning and archive reviews.

7. Pathway Mapping

Design and implementation and mapping of integrated care pathways, measurement of quality and compliance across pathways, variation reduction and assessment.

8. Clinical Coding

HES/SUS, ICD10, HRG and OPCS4

9. Quality Audits

SUS/PbR, commissioning datasets and tariff reviews

10. GDPR, Data Protection and Sharing

Data sharing strategies for integrated care and combined care, assessments and reviews for GDPR, implementation and training for the Data Security and Protection Toolkit (formerly the IG Toolkit). Advice and assurance, privacy policies, audit, compliance, adherence and training.

