ROLE INTELLIGENCE GUIDE | APRIL 2026

Inside NHS Data, Analytics & Business Intelligence

So You Want to Work in NHS Data and Analytics?

What the Role Actually Involves

Drawn from 63 NHS job pack extractions across tracked Data, Analytics and Business Intelligence roles.

DOMAIN PARTNER

London Centre for Analytics

https://www.lcfa.ai

63	4	7	3-8C
Job packs	Role types	Terms defined	Band range

SECTION 01

Why NHS Data, Analytics and Business Intelligence is Different

Data and analytics work in the NHS is not the same as data work in a commercial organisation. The environment, the governance requirements, the data sources and the consequences of error are all different. Understanding this is the most important preparation anyone moving into an NHS analytics role can do.

In the NHS, the data you work with describes real patient pathways, clinical outcomes and population health. A reporting error in a quarterly performance dashboard does not just affect a KPI. It can influence commissioning decisions, staffing levels and clinical service provision. A data quality failure in a cancer registry affects treatment tracking. An information governance breach involving patient-identifiable data carries regulatory, legal and reputational consequences that no commercial organisation faces in the same way.

> *The post holder collates, validates and enters cancer patient data on the Somerset Cancer Registry system to ensure correct and up to date patient information. They work with multidisciplinary teams to collect data for national cancer audits, NHS Cancer Services Quality Surveillance Programme and Cancer Services Outcomes Dataset reporting requirements.*
>
> DATA QUALITY OFFICER · BAND 3 · COUNTY DURHAM AND DARLINGTON NHS FOUNDATION TRUST

NHS analytics professionals work within a uniquely complex data landscape. The datasets are unlike anything in the commercial world: Secondary Uses Service (SUS), Hospital Episode Statistics (HES), the Mental Health Services Data Set, SNOMED CT clinical coding, EMIS and SystmOne primary care systems, national registries and locally held data warehouses. Learning to navigate these sources, understand their limitations and combine them meaningfully is the primary technical challenge of the role.

NHS organisations are also deeply federated. Your data may span multiple trusts, an Integrated Care Board, primary care networks and community providers. Getting a complete picture of a patient pathway often requires linking data across systems that were never designed to talk to each other. This is the analytical challenge NHS data professionals face every day.

Key insight for those entering from outside the NHS

Your technical skills transfer directly. SQL is SQL. Power BI is Power BI. The learning curve is in the data itself: NHS datasets, national definitions, information governance frameworks and the political sensitivity of performance data. Plan for six to twelve months to become genuinely fluent in the NHS data environment.

SECTION 02

The Role is Not One Job. It is Four.

One of the most important things the job pack data reveals is that NHS data, analytics and business intelligence describes four substantially different roles. Understanding which type you are applying for, and which type your background best fits, will significantly improve your application and your likelihood of success.

Information and Performance Analyst

BAND 4 TO 7

The most common role type in the dataset. Responsible for producing regular performance reports, managing statutory returns, monitoring KPIs and responding to ad hoc data requests from operational managers and clinicians. Works with NHS datasets including SUS, HES and locally held systems. SQL and advanced Excel are essential at Band 5 and above. Power BI and SSRS appear frequently from Band 6 upward. This is the entry route for most people moving into NHS analytics and the foundation on which all other role types are built.

Business Intelligence Developer

BAND 5 TO 8A

Building and maintaining the reporting infrastructure: data warehouses, BI portals, automated dashboards and data pipelines. Requires stronger technical skills than the analyst track, with SQL Server, SSRS, SSIS, Power BI and increasingly Azure data services appearing across Band 5 to 8A job descriptions. One Band 5 role at Wirral University Teaching Hospitals describes developing SQL scripts to interpret healthcare datasets and creating automated reporting processes via the Trust BI Portal. The career ceiling is higher and the technical depth required is greater. A strong pathway for those coming from software development, database administration or data engineering backgrounds.

Data Engineer and Data Scientist

BAND 5 TO 8A

Emerging role types appearing with increasing frequency in the dataset as NHS organisations mature their data infrastructure. Data engineers build and maintain the pipelines that feed analytical products, working with data warehouse architecture, ETL processes and increasingly cloud platforms. Data scientists apply statistical and machine learning techniques to complex NHS datasets. Python, R and specialist statistical tools appear in this tier. One Band 5 data engineer role explicitly requires experience writing SQL queries and stored procedures and an understanding of data warehouse architecture. These roles are concentrated in academic medical centres, Integrated Care Boards and NHS England national teams.

Performance and Insight Leadership

BAND 7 TO 8C

Senior roles responsible for the entire information and analytics function within a trust or system. At Band 8A the role shifts from doing to leading: managing teams of analysts, setting data strategy, owning the data warehouse and presenting integrated performance intelligence to the board. One Band 8C role at Leeds Community Healthcare describes leading the Business Intelligence service, managing a team of functional experts across business intelligence, data warehousing, data quality and analytics, and working in partnership with the Executive Team to develop integrated performance reports. At this level analytical skill is assumed. Leadership, strategy and board-level communication are what matter.

SECTION 03

What You Actually Do: Band by Band

The job pack descriptions tell a consistent story about how responsibilities expand as you move up the pay scale. The technical core, querying data, validating outputs and producing reports, is present at every level. What changes is the complexity of the analysis, the seniority of the audience and the degree of strategic autonomy expected.

Band 3 and 4: Data entry, validation and coordination

Entry-level NHS data work is about accuracy, process and compliance. At Band 3 and 4, you are collating and validating data, entering records onto clinical systems, managing databases and producing basic reports. The work is administratively demanding and intellectually rigorous in its attention to detail. Errors at this level propagate upstream. Multiple Band 4 job descriptions list experience in collecting, validating and managing large datasets and experience of using data tools including statistical tools, Excel and database management systems as essential requirements. This is where NHS data literacy is built.

> *You will ensure the efficient management of patient data, supporting compliance with regulatory standards and advancing service-related research initiatives. This involves overseeing the collection, validation, input and reporting of patient information, collaborating with internal teams, GPs and external partners.*
>
> DATA COORDINATOR · BAND 4

Band 5: Technical delivery and reporting

Band 5 is where the analytical work begins in earnest. You are querying databases, building reports, developing dashboards and starting to interpret data for operational audiences. SQL is expected at this level, alongside advanced Excel and increasingly Power BI or equivalent BI tools. One Band 5 role at a GP practice describes analysing clinical data to identify trends and patterns that can be used to improve organisational procedures, developing and maintaining dashboards to track KPIs and training staff on how to use data. The data engineering track begins at Band 5, with roles explicitly requiring understanding of data warehouse architecture and experience developing or maintaining data systems.

Band 6: Senior analyst and independent delivery

Band 6 is the largest hiring volume tier in the dataset with 15 tracked roles. At Band 6 you own your analytical outputs. You are accountable for data quality, responsible for your own project delivery and expected to communicate findings directly to senior managers and clinicians. Multiple Band 6 job packs require competency in Microsoft SQL to query data and design reports alongside advanced Excel skills. The expectation of stakeholder management becomes explicit at this level: co-producing robust analytical solutions with customers, tailoring communication to different audiences and explaining uncertainty in your findings appear as essential criteria.

> *The post holder delivers information services to support Trust operations, ensuring managers and clinicians receive accurate data for patient care decisions. They pull data using Microsoft SQL, develop online reporting platforms like Power BI and SSRS, and create performance dashboards. Daily responsibilities include analysing complex datasets, supporting ad hoc information requests, monitoring reporting systems and presenting findings to senior managers and clinicians.*
>
> SENIOR ANALYST · BAND 6 · EAST SUSSEX HEALTHCARE NHS TRUST

Band 7: Specialist lead and programme support

Band 7 marks the transition to analytical leadership. You are leading quality monitoring programmes, managing data systems across clinical networks, providing expertise in service improvement and presenting complex analytical findings to programme boards. One Band 7 role at University Hospitals Sussex describes leading improvement of information and data quality across two Strategic Networks, managing and supporting service improvement projects through data interpretation, and providing expertise in data collection and system improvement. Line management of junior analysts and project management responsibilities appear at this level.

Band 8A and above: Intelligence leadership and strategy

At Band 8A you are directing the analytical function, not delivering it. You are working directly with executives to shape how data is used across the organisation, owning the data warehouse strategy, managing teams of analysts and developers, and producing the integrated performance intelligence that informs board-level decisions. One Band 8A Business Intelligence Partner role describes gathering requirements from divisions, designing and implementing business intelligence solutions and supporting operational and strategic decision-making through focused BI. At Band 8C, the role becomes organisational leadership: shaping reporting systems, tools and techniques to ensure directors, managers and clinicians receive the intelligence they need to run safe, effective services.

SECTION 04

The Governance and Assurance Layer

NHS data governance is one of the most consistently cited requirements across all job packs in this domain, appearing in over 60 of 63 extractions in some form. The terminology is specific, the frameworks are NHS-wide, and familiarity with them signals immediately whether a candidate has genuine NHS data experience or is making assumptions based on commercial analytics backgrounds.

TERM	WHAT IT MEANS IN PRACTICE
Information Governance (IG)	The framework governing how NHS organisations handle, store, share and protect information. IG appears in 60 of 63 job pack extractions, making it the single most cited requirement in the dataset. In practice it means understanding what data can be shared with whom, under what authority, and how to document that sharing appropriately. Every NHS analyst role operates within IG constraints.
GDPR and Data Protection Act 2018	The legal framework governing personal data processing. In NHS analytics this means understanding lawful bases for processing patient data, data minimisation principles, data subject rights and the responsibilities of data controllers and processors. NHS organisations are data controllers. Analysts are data processors. The distinction matters.
NHS Data Dictionary	The national standard definitions for NHS data including codes, classifications and data item definitions. Cited explicitly in multiple Band 6 job descriptions as essential knowledge. Without it, cross-organisation data comparison is unreliable. Understanding NHS Data Dictionary standards is what distinguishes NHS analysts from general data professionals working with health data.
Data Security and Protection Toolkit (DSPT)	The annual NHS self-assessment framework that every NHS organisation and supplier must complete. Covers data security, information governance and cyber security standards. Analysts in IG-heavy roles often contribute to or lead on DSPT submissions, particularly around data quality and records management sections.
Caldicott Principles	Eight principles governing the use of patient-identifiable information in the NHS, established by the National Data Guardian. Sitting above GDPR in practical NHS data work, they require that patient data is only used when necessary, that the minimum required is used, and that access is on a strict need-to-know basis. Every analyst working with patient-level data must be able to demonstrate understanding of these principles.
National Data Opt-Out	The right of patients to opt out of their data being used for research and planning purposes beyond their direct care. NHS analysts working with national datasets including SUS and HES must apply the national data opt-out before using data for planning purposes. Failure to apply opt-outs correctly is an information governance breach.

Data Quality	In the NHS context, data quality has a specific and formally defined meaning: completeness, validity, consistency, timeliness and accuracy of clinical and administrative records. It appears across nearly every job pack at every band because poor data quality in NHS systems has direct consequences for patient safety, performance monitoring and national reporting. Understanding root causes of data quality failures is a senior analyst skill.

These terms appear consistently across NHS data job packs at all band levels. Familiarity with them, and the ability to speak about them confidently at interview, is a reliable differentiator between shortlisted candidates.

SECTION 05

What Stakeholder Management Actually Means in NHS Analytics

Stakeholder management appears as an essential requirement in the majority of NHS data and analytics job packs from Band 5 upward. But the term significantly understates the complexity of what is actually required.

In NHS analytics, you are producing numbers that affect clinical decisions, operational performance and sometimes people's jobs. The data is never neutral. When you show a ward manager their discharge times are the worst in the trust, or present a clinical lead with an outlier in their pathway data, the stakeholder relationship becomes immediately political. Managing that dynamic, while maintaining analytical integrity, is the hardest part of the role.

Managing upward: executives and boards

Translating complex analytical outputs into board-level insight is an explicit requirement across Band 7 and Band 8A job descriptions. Executives have limited time and specific decision-making needs. They want to know whether performance is on track, what the risks are and what action is required. The ability to compress a complex analysis into a clear one-page summary, with honest treatment of uncertainty, is a skill that immediately signals seniority. One Band 8A role describes working directly with the Executive Team to develop integrated performance reports and embedding a culture of data maturity across the organisation.

Managing laterally: clinicians and operational managers

The most difficult dimension. Clinicians did not commission your report. Operational managers may not trust your numbers. Finance colleagues may have different data sources showing different figures. Your job is to build credibility through accuracy, consistency and genuine understanding of what each stakeholder is trying to achieve. Several Band 6 job packs use the phrase co-produce robust analytical solutions, which is doing significant work. It means the analysis is developed with the stakeholder, not delivered to them. That distinction changes the entire working relationship.

> *The Senior Data Analyst will forge close working relationships across all areas of the Trust to understand requirements and co-produce robust analytical solutions. They will routinely analyse highly complex information and data for patterns and translate this into actionable insight.*
>
> SENIOR DATA ANALYST · BAND 6 · VELINDRE UNIVERSITY NHS TRUST

Managing demand: the ad hoc problem

A consistent theme across the extractions is the volume and variety of ad hoc information requests. Analysts at every band describe managing competing priorities and simultaneous requests from multiple operational stakeholders. The ability to prioritise requests, communicate timelines honestly and push back diplomatically when demand exceeds

capacity is a genuine professional skill in NHS analytics. One Band 5 role explicitly lists ability to manage own workload reflecting operational and reporting deadlines as an essential criterion.

What interview panels are actually testing

When a panel asks you to describe a time you communicated complex data to a non-technical audience, they are testing whether you understand that the analysis is only half the job. The other half is making the insight land with the person who needs to act on it. Frame your answer around what the stakeholder needed to decide, not what you found in the data.

SECTION 06

How Your Existing Experience Translates

One of the most important things to understand about NHS data and analytics roles is that they recruit from an unusually wide range of backgrounds. The domain values transferable skills highly, and the NHS actively develops analytical capability from within its existing workforce. Wherever you are coming from, there is a translation.

If you come from a data or analytics background

Your SQL, BI tools, dashboard development and data modelling skills transfer directly. Power BI, Tableau, Excel, Python and R are all cited across NHS job packs at every band level. The learning curve is in the data environment itself: NHS datasets have specific structures, national definitions and governance constraints that take time to learn. Plan to invest in understanding SUS, HES, SNOMED CT and the NHS Data Dictionary. The analytical thinking is the same. The context is different.

If you come from a clinical background

Your familiarity with patient pathways, clinical coding, outcome measurement and multidisciplinary working is genuinely valuable context that most pure data professionals lack. You understand what the data represents in clinical reality. NHS data teams increasingly value analysts who can bridge the gap between the technical and the clinical, particularly in roles supporting clinical networks, quality improvement and service redesign. Frame your clinical audit experience as project delivery. Frame your outcome tracking as performance monitoring. Frame your MDT coordination as stakeholder management.

If you come from finance or operations

KPI reporting, performance monitoring, variance analysis and spreadsheet-heavy roles map directly to information analyst work. NHS finance teams and operational management functions already work with much of the same data infrastructure that analytics teams use. Cost improvement programme support, activity modelling and capacity planning all appear as requirements in Band 6 and 7 analytics job descriptions. The transition is often shorter than people expect.

If you come from IT or systems administration

Database administration, system management and data flow experience are directly transferable to the BI development and data engineering tracks. NHS trusts run complex data infrastructure including SQL Server, data warehouses, integration engines and increasingly cloud platforms. Understanding how these systems connect and where data originates is a significant advantage that pure analysts often lack. The data engineer and BI developer career tracks are natural destinations.

If you are new to data roles

Entry points exist at Band 3 and 4 for people with strong attention to detail, good Excel skills and a willingness to learn NHS data systems. The NHS actively develops analytical talent from within: many Band 7 and Band 8A analysts started in Band 4 data coordinator or administrator roles. GCSE Mathematics and English at grade C or above,

combined with relevant experience and a demonstrable interest in data, is a realistic starting point for the analytical pathway.

On qualifications

The NHS does not require a specific degree for most analyst roles below Band 7. Degree level education or equivalent relevant experience appears consistently, but the emphasis on equivalent experience is real and consistently applied. The NHS Apprenticeship route provides a formal pathway into data roles without requiring prior degree-level qualifications. At Band 7 and above, a Masters degree or equivalent specialist knowledge becomes more commonly cited.

SECTION 07

Key Takeaways

1

NHS data work is not the same as commercial analytics.
The datasets, governance frameworks, stakeholder complexity and consequences of error are all different. Budget time to learn the NHS data environment specifically, not just the technical tools.

2

The domain is four different roles.
Information analyst, BI developer, data engineer and performance leadership are distinct career tracks with different technical requirements and different ceilings. Know which track fits your background before applying.

3

Information governance is not optional knowledge.
IG appears in 60 of 63 job pack extractions. It is the single most cited requirement in the dataset. Understanding GDPR, Caldicott Principles, the national data opt-out and the DSPT is table stakes for every NHS data role above Band 4.

4

Stakeholder management is the hardest part of the job.
Producing accurate analysis is necessary but not sufficient. The ability to communicate uncertainty to non-technical audiences, co-produce solutions with operational stakeholders and manage competing demands diplomatically is what separates good analysts from excellent ones.

5

The NHS recruits from a wider range of backgrounds than most people expect.
Finance, operations, IT, clinical practice and no prior NHS experience at all are all valid routes into NHS analytics. The domain values transferable skills and actively develops analytical capability from within. Entry is possible at Band 3 or 4 without a degree.

All descriptions in this guide are drawn from NHS job pack extractions in the Career Co-Pilot database as at April 2026. Job descriptions are paraphrased and synthesised for clarity.

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