

*For office use only*

CAJE REFERENCE **HD2017/0029**

DATE APPROVED **22/02/2017**

Updated 04/08/2022

## JOB DESCRIPTION

### JOB DETAILS

**Job Title:** Data Scientist

**Pay Band:** 7

**Directorate:** Planning, Performance, Informatics and Commissioning

**Department:** Digital Services

### ORGANISATIONAL ARRANGEMENTS

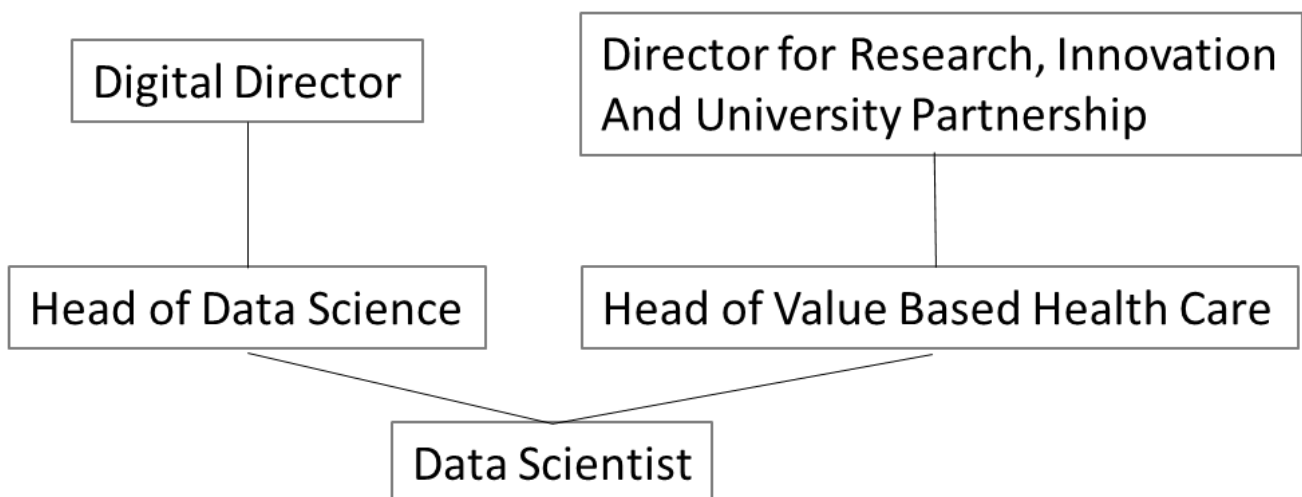
**Managerial Accountable to:** Head of Data Science

**Reports to:** Head of Value Based Health Care

**Professionally Responsible to:** Head of Data Science

**Responsible For:** Data Science

**Organisation chart:**



## **JOB SUMMARY / PURPOSE**

This post is situated within the Data Science Team, in the Digital Services Department, which delivers patient activity related and performance management information to all departments within the Health Board and to external partners and organisations.

The post holder will lead in promoting Value Based Health Care by using Data Science with the effective use of data, information, knowledge and technology to support and improve the performance reporting of health and health care delivery.

The post holder will provide detailed analytical reports of the Patient Reported Outcome (PROM) data and Patient Reported Experience (PREM) performance data produced by the Health Board.

The post holder will provide support for Value Based Health Care service reviews, service redesign and service improvement projects where required. This includes identifying specialist business intelligence tools and techniques that actively promote a range of improvement tools, including benchmarking to promote a culture of excellence.

The post holder will possess highly developed data handling, interpretation, analysis, modelling and statistical skills.

## **MAIN DUTIES AND RESPONSIBILITIES**

Identify, develop and implement new methods of storing and reporting data within the HB, to localities, external stakeholders and agencies to meet changing requirements. Ensuring platforms are in place to minimise duplication and produce consistent measures across reports.

Provide expert advice and guidance to the Head of Value Based Health Care, Head of Data Science and Senior members of staff on a range of analytical and complex data queries. Be the lead specialist in advising all levels of staff in terms of available data and reports, using expert knowledge and skills to consult on and take forward new and old developments as well as fulfilling ad hoc requests.

Use of expert programming skills is required to maintain existing systems and develop new solutions. Knowledge of SQL and R script writing are essential.

Ensuring data warehouse security policies meet the requirements of data protection act and data backups are in place. Proposing changes to; and develops information and local managerial policies and procedures as necessary for the service area.

The post holder will support the Head of Value Based Health Care and Head of Data Science, by providing expert investigative, analytical and technical expertise in the interpretation and presentation of highly complex statistical data and information.

Plan and organise the collection of new data sources from both clinical and non-clinical systems. Identify the impact of changes to current reporting processes and formulate and adjust long-term/strategic plans that will address the issues which may impact across the whole organisation.

Reports must be accurate, consistent, submitted in a timely manner and to tight timescales to customers such as Welsh Government (WG), Digital Health Care Wales (DHCW), Executive Directors, Service Leads and Clinicians. The post holder will ensure rigorous processes are developed and put in place to assure the accuracy, quality and consistency of reports and provide assurance and recommendations that reports are fit for submission.

Respond to queries regarding reports, information, data quality and processes. They will come from staff within the department, staff at all levels in the organisation as well as from external organisations (WG, DHCW, other LHBs). Queries are varied and cover a wide variety of topics e.g. questions about data quality, changes in numbers (increases or decreases) or inclusions or exclusions of certain sets of data within a report, steps within a process.

In order to answer queries effectively the post holder will analyse complex facts or situations that require interpretation or the comparison of a range of options. They will develop and use their understanding of healthcare related data, data definitions, analysis methodologies, data flows, business processes and timescales relating to the availability of data. A high degree of understanding is required of how data is recorded and processed within sophisticated patient administration systems, databases and numerous data collection systems.

Plan and organise a broad range of complex activities such as projects that result from requirements to make changes to information systems, ways of working, business processes or in relation to data quality issues. These will have an impact both within the department and other areas of the organisation and will need to be adjusted in relation to competing priorities or to fit in with organisational plans and objectives.

Take the lead with new developments across the team by providing support and advice to the Senior Analysts.

As a senior member of the department the post holder follows broad occupational policies. They will work to achieve agreed objectives and have the freedom to do this in their own way utilising the resources they have available to them. They will act primarily without reference to their manager.

Interpreting and ensuring adherence to the law and legislation is carried out, to include the data protection act, freedom of information act, Caldicott.

Identify reporting needs of various users, design and adapt current systems to meet these needs, whilst also ensuring audit requirements are met.

The post holder will make judgements on where to source data using the specialist knowledge and experience they have gained whilst working with health data to identify the correct data source.

Make judgements on multi-stranded and complex data where there are no precedents or where there are conflicting opinions. Present the findings of such data to a wide range of staff including Executive Directors, Board Members and Locality General Managers.

## **Communications**

The post holder will provide and receive complex, sensitive, or contentious information. They will use persuasive, motivational, negotiating, training, empathic and re-assurance skills to encourage collaborative working, cooperation, overcome barriers to understanding or resistance to change. They will communicate complex IM&T issues/processes to staff and managers some of whom may not have an IM&T background e.g. data definitions, information flows, business processes, information and patient administration systems.

Deal with highly complex statistical / analytical enquiries, selecting the most appropriate design and analytical methodology, interpreting results, dealing with anomalies as they arise and selecting the most appropriate means of presentation.

Collate and analyse complex data and prepare and provide to Directorates and LHB departments, robust monthly performance reports of activity information and where appropriate, its related clinical information, identifying trends and dealing with anomalies and data quality issues as required.

Key working relationships include staff within the Information Department, Performance and Planning particularly within the Analytical team, Reporting and Support and Clinical Coding functions. Other key working relationships are with senior staff throughout the organisation including Executive Directors and associated senior members of their directorates/teams, colleagues in Welsh Government, DHCW, the Local Authority, other LHBs/trusts and system suppliers.

Attend meetings both locally and within NHS Wales attended by representatives from Welsh Government, the Delivery Unit, Wales Audit Office, Other Health Boards, and the Local Authority and provide appropriate feedback to relevant colleagues.

Provide specialist advice to staff/managers on the HB's reporting systems and available data.

## **Responsibility for Information Resources**

Keep abreast of changes relating to the national IT programmes of work and how they may interface with or impact upon existing systems, e.g. Welsh Community Care Information System (WCCIS), Welsh Clinical Portal (WCP), Enterprise Master Patient Index (EMPI) and Electronic Document Management System (EDMS).

Promote the values of accurate, timely and consistent data by establishing robust data validity and quality checks/ routines that will deliver improvements in the quality, timeliness and reliability of data.

Monitor compliance against national data validity and quality targets and take appropriate actions if compliance falls below these targets. Instances of poor data quality or unsafe practice will be investigated and corrected at source.

Where locally controlled the post holder will ensure robust process are in place relating to the maintenance and upkeep of system reference data e.g. GP and GP practice details, postcodes, clinical codes etc as per NHS Wales data dictionary and the Health and Social Care Information Centre.

Where locally controlled ensure the appropriate security measures and policies are in place. Ensuring that only those with the agreed access rights view relevant data and reports.

Ensure robust back up procedures are in place for key databases, working closely with the Information Technology Team.

The need for Information will change over time due to changing demands placed upon services used for both planning and performance management purposes. Where these changes (proposed or otherwise) fall within the scope of the post holder they will engage with stake holders in order to understand and assess any potential impact. Changes may relate to new functionality, changes to existing functionality or they may support the collection of new data items which have been mandated via Welsh Health Circulars (WHCs), Ministerial Letters and Data Set Change Notices (DSCNs). Where the organisation has been asked to respond to questions regarding the impact of change to datasets or reporting requirements the post holder will formulate responses on behalf of the organisation, following engagement with relevant stakeholders.

Once it has been agreed that changes will take place the post holder will work closely with stakeholders to plan and implement the change using proven project and change management methodologies.

### **Responsibility for Research and Development**

Regularly undertake structured testing of functions, features and processes relating to information systems. This is to ensure the safety and suitability of upgrades to application software, changes to business processes and new ways of working.

Working with the Information and Data Quality manager the post holder will undertake regular audits of system data quality ensure rigorous processes are developed and put in place to assure the accuracy, completeness, quality and consistency of data contained within the systems.

Through research maintain awareness of business intelligence solutions available in the marketplace and identify appropriateness for the HB's needs.

Take responsibility for the development and promotion of Health Board data and available reports, implementation of tools and techniques with the HB.

### **Finance and Resources**

Work with Health Board staff to derive business cases and support the implementation of new information models within the Health Board.

### **Personal and People Development and People Management**

Participate in PDR process.

Attend Mandatory Training.

Provide input into team development and process improvement.

### **Health, Safety and Security**

Maintaining appropriate security for data in accordance with policies and legislation.

Working closely with information Governance to identify potential security and IG risks.

Assist in identifying patient safety issues relating to business change.

### **Quality**

Involvement in the testing and quality processes developed as part of the release and business change process.

Produce documentation to correct standards.

### **Equality and Diversity**

Understands and Supports equality and values diversity.

Supports health Board Equality and Diversity processes as required for projects and business changes.

### **Effort and Environmental**

There will be a frequent requirement for sitting in a restricted position for a substantial proportion of the working day.

Occasionally there will be a requirement to take laptops and display equipment to venues outside of the post holder substantive base for training, skills transfer and meetings.

The work pattern is unpredictable and there is a frequent requirement to have to concentrate e.g. when analysing IM&T documents/reports, spreadsheets, databases, software queries, correcting complex programs created within the data warehouse. Frequent interruptions from staff asking for help/advice, information systems, customers who have queries regarding reports they have received, all of which require priorities to be changed.

There is an occasional requirement for in depth mental concentration over significant periods of time, dealing with an unpredictable work pattern due to the nature of the role. A high degree of intense concentration is required within dealing with staff, to ensure information is correctly collected and analysed for correct interpretation and presentation at very senior level internal and external to the HB.

The post holder will occasionally deal with distressing or emotional circumstances e.g. when interrogating patient based data from other providers such as Welsh Cancer Service.

### **General**

Other tasks and duties may be determined by appropriate line manager as the role develops.

## PERSON SPECIFICATION

ATTRIBUTES	ESSENTIAL	DESIRABLE	METHOD OF ASSESSMENT
<b>Qualifications and Knowledge</b>	<p>Educated to Masters degree level or equivalent level of work experience</p> <p>Appropriate Management Qualification</p>		Application form
<b>Experience</b>	<p>Experience of analysing and reporting of critical business information that is available for public scrutiny</p> <p>Experience in the use of modelling tools to develop and test future strategy options</p> <p>Experience in policy / service development and implementation</p> <p>Business case development</p> <p>Report writing</p> <p>Experience in presenting data to a wide range of people with varying degrees of understanding</p> <p>Interaction with managers at all levels</p>	<p>Understanding of the benefits IM&amp;T can bring to the NHS</p> <p>Expert knowledge of MS suite of applications</p> <p>Knowledge of the development and use of computer databases, SQL programming and query tools</p> <p>Knowledge of Value Based Health Care</p>	Application form and interview
<b>Language Skills</b>		<p>Welsh Speaker (Level 1)</p> <p><i>Full details around the expectations associated with level 1 may be found at the bottom of this page</i></p>	Application form and interview

<b>Aptitude and Abilities</b>	<p>Communication skills – ability to communicate highly complex or contentious information to a variety of audiences</p> <p>Analytical skills – ability to analyse complex facts / situations and select from a range of potential options</p> <p>Highly developed data handling, interpretation, analysis, modelling and statistical skills</p> <p>Planning – ability to plan and organise complex activities and work programmes, and make adjustments on an ongoing basis</p> <p>Advanced keyboard skills / experience of MS office software packages</p> <p>Highly skilled in the use of SQL and R script writing</p> <p>Highly skilled in SQL Integration, Reporting Services and in SQL Management</p>	<p>Interpersonal skills to motivate joint working and promote partnership development</p> <p>Ability to present contentious information in a professional and understandable way to a wide audience</p> <p>Able to assimilate information quickly and think logically</p>	<p>Interview</p>
<b>Values</b>	<p>Ability to embrace the following personal values and behaviours on a daily basis -</p> <ul style="list-style-type: none"> <li>• Dignity, Respect and Fairness</li> <li>• Integrity, Openness and Honesty</li> <li>• Caring, Kindness and Compassion</li> </ul> <p>Ability to demonstrate a commitment to our organisational values -</p> <ul style="list-style-type: none"> <li>• Working together to be the best we can be</li> </ul>		<p>Interview</p>

	<ul style="list-style-type: none"> <li>• Striving to develop and deliver excellent services</li> <li>• Putting people at the heart of everything we do</li> </ul>		
<b>Other</b>	There will be some requirement to travel (i.e. to meetings). Post holder must have the ability to respond promptly to this requirement.		Interview

### Level 1 Welsh

*(Please note that for this particular post level 1 in spoken Welsh is desirable but not essential)*

**Listening/Speaking:** Pronounce Welsh words, place names, department names, etc. Greet and understand a greeting. Use basic every day words and phrases, e.g. thank you, please, excuse me, etc. Understand / pass on simple verbal requests of a routine / familiar / predictable kind using simple language, e.g. 'May I speak to...'. State simple requests and follow up with extra questions / requests in a limited way.

**Reading/Understanding:** Understand simple key words and sentences on familiar / predictable matters relating to own job area, e.g. on signs, in letters.

**Writing:** Fill in simple forms, note down simple information, e.g. date and venue of a meeting, Welsh address, etc.

## GENERIC STATEMENTS

### NHS CODE OF CONDUCT FOR MANAGERS

\*\* For Managers only:

The post holder will be expected to adhere to the standards laid down in the NHS Code of Conduct for Managers and at all times act in a manner that reflects and promotes the values of the HB. The post holder must ensure all activity and service objectives are effectively met in compliance with HBs standing orders and SFIs, scheme of delegated authority and employment legislation.

### REGISTERED HEALTH PROFESSIONAL

\*\* For Registered Health Professionals only:

All staff who are members of a regulatory body must comply with standards of professional practice/conduct. It is the postholders responsibility to ensure they are both familiar with and adhere to these requirements.

### HEALTHCARE SUPPORT WORKERS

\*\* For Healthcare Support Workers only:

All healthcare support workers should be familiar with and must comply with the Code of Conduct for Healthcare Support Workers in Wales.

## **COMPETENCE**

The post holder is required to participate in the Hywel Dda PDR process and work towards meeting identified development needs. The postholder is required to demonstrate ongoing continuous professional development. At no time should the postholder work outside their defined level of competence. If the postholder has concerns regarding this they should immediately discuss this with their Manager/Supervisor/Consultant. The postholder has the responsibility to inform those supervising their duties if they are not competent to perform a duty.

## **TEAM BRIEF**

The post holder is required to actively participate in Hywel Dda Team Briefing in order to aid communication within the Health Board. Managers and supervisors will regularly deliver the Team Brief verbally to their own staff teams by means of a Core Brief and additional departmental information.

## **RISK MANAGEMENT/HEALTH & SAFETY**

The postholder has a responsibility to themselves and others in relation to managing risk, health and safety and will be required to work within the policies and procedures laid down by the Hywel Dda. All staff have a responsibility to access occupational health, other staff support services and/or any relevant others in times of need and advice. The postholder has the responsibility for monitoring the progress on action plans in relation to risk, health and safety. The postholder has the responsibility for the development of risk profiles and a risk register within their area of responsibility. The postholder has the responsibility for developing systems to monitor performance against agreed performance indicators.

## **HARRASSMENT & BULLYING**

The HB condemns all forms of harassment and bullying and is actively seeking to promote a workplace where employees are treated with dignity, respect and without bias. All staff is requested to report any form of harassment and bullying to their line manager or to any Director of the HB.

## **RECORDS MANAGEMENT**

The postholder has the responsibility for timely and accurate record keeping and where appropriate in accordance with professional guidelines. The postholder has the responsibility for the creation and maintenance of records in accordance with Hywel Dda policy and the data protection act.

## **FLEXIBILITY STATEMENT**

The developing and rapidly changing nature of the organisation will require considerable flexibility from the post holder. This job description indicates the main functions and responsibilities for the post and is not intended to be a fully inclusive list and the duties and responsibilities specified in this job description are subject to change as the needs of the HB evolve. On agreement with the post holder, this job description will be amended, as necessary, in the event of future organisational and professional changes and/or personal development.

## **CONFIDENTIALITY**

All staff may have access to confidential information about patients, staff or health service business. On no account must such information be divulged to anyone who is not authorised to receive it. Confidentiality of information must be preserved at all times whether at or away from work. Any breach of such confidentiality is considered a serious disciplinary offence, which is liable to dismissal and /or prosecution under current statutory legislation (Data Protection Act) and the HB Disciplinary Policy.

## **EQUAL OPPORTUNITIES**

Hywel Dda University Health Board is committed to ensuring that, as far as is reasonably practicable, the way we provide services to the public and the way we treat our staff, patients and others reflects their individual needs and that individuals or groups will not face discrimination, harassment or victimisation, or be treated less favourably on the basis of sex, pregnancy and maternity, gender reassignment, disability, race, age, sexual orientation, religion and belief, family circumstances including marriage and civil partnership. To this end, the UHB has an Equality and Diversity Policy and Equality Impact Assessment Policy and Procedure and it is for each employee to contribute to enacting these policies.

## **OUTSIDE EMPLOYMENT/OUTSIDE INTERESTS**

Any other work or outside interests must not conflict with the duties and responsibilities of your attendance for work as an employee of the HB.

## **ENVIRONMENTAL**

The Hywel Dda Health Board is committed to its environmental responsibilities. The Board recognizes that its activities, including energy consumption, waste generation, transportation emissions, water use and resource consumption, have a significant impact on the environment. As an integral part of its commitment to ensure high quality patient care, all staff have a responsibility to adhere to environmental policy and procedure at both an organisational level and within their own area of work to ensure legal compliance. Staff will do their utmost to minimize the environmental impacts of Health Board activities and services, and seek to continually improve operations to minimize their environmental effects. Staff should take note of relevant communications and attend mandatory training when required.

## **SMOKE FREE POLICY**

All Health Board sites and premises and grounds are designated as smoke free areas. This policy applies to all staff, contractors/service providers, patients\*, visitors and the public.

**\*Those patients staying in residential mental health units will be exempt under the Smoke-Free Premises (etc) Wales Regulations 2007.**

## **SAFEGUARDING ADULTS AND CHILDREN**

Every employee of the Health Board, whatever their job, role, profession, status or place of work, paid or voluntary, has a responsibility for Safeguarding both adults and children. Staff must:

- Understand the nature of abuse and how children and adults might be at risk of harm and neglect.
- Understand their own safeguarding responsibilities and what actions they may need to take.
- Know where they can access local policies and procedures in relation to Safeguarding Children and Safeguarding Adults.
- Report allegations or suspicions of abuse to their line manager, including suspicions about a colleague or manager, irrespective of their status, profession or authority. This includes whistle-blowing
- Know how to make a Safeguarding referral to Social Services and/or the Police for both adults and children to report allegations or if they have concerns.
- Know what services, advice and support are available locally to vulnerable children and adults and how to access help needed.

## **INFECTION CONTROL**

"The document Commitment to Purpose: Eliminating Preventable Healthcare Associated Infection: A Framework of actions for healthcare organisations in Wales stipulates that all staff must understand their responsibility and accountability for Infection Prevention & Control and the Health Board must be assured of this on an ongoing basis". IP&C is the personal and individual responsibility of all Health Board staff. All staff have a responsibility to protect and safeguard patients, service users, visitors and employees against the risk of acquiring healthcare associated infections. This responsibility includes being aware of the content of and consistently observing, Health Board Infection Prevention & Control Policies and procedures; and best practice guidance in order to maintain high standards of Infection Prevention & control.

## **GENERAL**

The postholder needs to ensure they are familiar with their terms and conditions of service.