

NHS Foundry Support

G-Cloud 15

About CF

CF is a leading consultancy with a purpose to **make an enduring impact on health and healthcare**. We work with leaders and frontline teams to improve health, transform healthcare, drive adoption of innovation and create value through investment.

Our mission is to **be invaluable to our clients, supporting them to innovate and make lasting improvements and to build an exceptional company that attracts, develops, and retains a trusted and uniquely talented team.**

Our consultancy serves the entire healthcare sector, from payors and providers of care, to life science companies, health tech and sector suppliers. We provide **end-to-end services**, spanning strategy to implementation, accelerated by data, digital and AI. We shape opinion through evidence-based thought leadership on the key issues affecting health. With **unmatched ability to access health data**, our consultants are a driving force for delivering positive and meaningful change.

We help systems and organisations realise transformative change, to drive improvements in quality of care and performance. We inspire clients to innovate and sustain change, through a trusted, talented, and dedicated team. Our partners lead all our work and bring decades of experience from within the NHS.

Our work with health systems includes partnering with public and private providers of all kinds of care, as well as their commissioners and regulators. We **work at every level** — national, regional, and local — **supporting health systems to improve** from a strategic, performance and organisational perspective.

We are passionate about healthcare, **improving outcomes** and **reducing health inequalities** through consultancy and the application of data and tools. CF is proud to have **won multiple awards** recognising our ability to partner with the NHS (including throughout the Covid pandemic), support the transformation of care, enable action with data and set the agenda through thought leadership.

Some of the awards we have been recognised with include:

- Gold in Healthcare and Silver in both Pharma & Life Sciences and Management categories Consultancy.ME 2025)
- Highly Commended in Change and Transformation in the Public Sector & Best Use of Thought Leadership categories - finalist across five categories (MCA 2025)
- Top UK Healthcare, Pharma and LS consultancy (consultancy.uk 2023)



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- Finalists across five categories (MCA 2023)
 - Finalists across three categories (HSJ 2023)
 - Project of the Year, Performance Improvement in the Public Sector and Strategy (MCA 2022)
 - Best Healthcare Analytics Project for the NHS (HSJ 2021)
 - Best Consultancy Partnership with the NHS (HSJ 2020)
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 - Best Healthcare Analytics Project for the NHS (HSJ 2020)
 - System and Data Integration (HSJ 2020)
 - Change and Transformation in the Public Sector (MCA 2020)
 - Best use of Strategy (MCA 2020)
 - Thought Leadership (MCA 2019)

Our data and cloud capabilities

We believe that we are uniquely positioned to support you in this work for several reasons:

- **Award winning analytics.** Our Data Innovation team have won Best Healthcare Analytics Projects and the Best Provider for Healthcare Analytics in multiple HSJ Awards.
- **Unparalleled data access.** We have access to more healthcare data in the UK than any other consulting company
- **Best in class security. We conduct regular penetration testing via trusted security experts.** Privacy is enhanced through our Amazon Virtual Private Cloud (VPC) in a logically isolated virtual network where all our services are controlled using best in class two factor authentication providers
- **We subscribe to an “infrastructure as code” philosophy** where all our software and service infrastructure is documented and controlled through auditable and shareable code allowing rapid deployment, reduced management costs and increased efficiency
- **All our software is comprehensively logged and auditable** to ensure any issues with service provision are identified, communicated, and ameliorated as quickly as possible



NHS Foundry Support

Service overview

NHS Foundry is a data hosting, collection and analytics platform provided by NHS England in partnership with Palantir. It allows sophisticated analytical tools to be built in its secure environment, with controlled access to live, national NHS datasets.

We have extensive experience of rapidly developing and deploying sophisticated analytical tools using Foundry to support the NHS at all levels – including national, regional, ICS, provider, Trust and PCN – in health and care planning, delivery, management and evaluation. We are, to the best of our knowledge, the only firm (other than Palantir) with the experience, capabilities and proven track record in developing NHS tools in Foundry, with the added strength of CF's deep understanding and experience of the NHS.

CF's expertise in healthcare analytics is grounded in a proven track record of tackling the NHS's most complex challenges through building better tools quickly and more cost-effective with a detailed understanding of user needs at every level. Our expertise is demonstrated across our entire organisation: 10% of our staff are doctors, 15% have PhDs and a further 20% have second or third degrees in machine learning, statistics or computer science, ensuring that every tool we build is informed by deep clinical and technical insight. Moreover, we have delivered over 1,000 engagements across the health sector, and our consultants recognised for their ability to translate user needs into practical, scalable solutions. We pride ourselves in our highly collaborative approach, working closely with NHS partners at every stage, from problem definition to co-design and deployment, ensuring our tools are first-for-purpose, intuitive, robust, and tailored to real-world workflows.

We can use Foundry as a basis to build a variety of different products, including for:

- Demand and capacity planning, including elective recovery
- ICS and place-based programme support
- Workforce planning
- Population health management
- Identifying and monitoring health inequalities
- System operational planning and monitoring
- Financial sustainability and productivity models
- Integrated Impact Assessments
- Programme evaluation and reporting

Below, we outline some more detailed examples of products that we have developed using Foundry.



This service is intended to help you develop and deliver benefits to your organisation. CF works together with clients to understand their specific requirements to help tailor the best approach. Please contact us on contracts@carnallfarrar.com to discuss your needs further.

Example tools built in NHS Foundry

Example 1: Vaccine programme tools

We have worked closely with NHSE in Foundry to develop tools to provide holistic management support for the vaccine programme at multiple levels. This has used applications including Slate, Quiver, Contour, Fusion, Monocle, Workshop, code workbooks and code repositories. These tools include:

- **Vaccine Equality Tool:** Where there was no authoritative source for vaccine inequalities data, we built the Vaccine Equality Tool in Foundry. This enables live visualisation of inequalities in vaccine uptake between ethnic groups and IMD deciles, including national level, ICS level and granular geographies.
- **Vaccine Centre Planning and Performance Tool:** Supporting the vaccine delivery model by enabling Vaccine Centre and pharmacy teams to review the operational performance of vaccination sites. This includes cancellation rates, DNAs and capacity, split by different factors such as cohort, age, ethnicity and dose number.
- **Workforce Trigger Dashboard:** Driving decisions around where to direct staff and capacity by supporting national and regional workforce leads to understand where critical shortfalls in staffing are likely to occur. This shows staffing at site level split by the delivery model, workforce type and job role.

Example 2: Covid-19 recovery: Demand and capacity planning

In Foundry, we built a tool to support community health service capacity planning for hospitals in Hampshire and the Isle of Wight to manage Winter and Covid-19 pressures, recover elective acute services and implement new discharge guidance. This tool projected staff and bed requirements based on acute step-down beds and historic non-acute demand. The insights it generated informed capacity management. For example, identifying areas with surplus capacity, improving communication across providers and facilitating an understanding of the changes needed to implement Home First guidance.

Example 3: Actionable Insights tool for identifying inequalities

Actionable Insights is a tool for identifying ICS-level health inequalities within NHS Foundry. It uses a statistically robust analysis, adjusted for background factors, to generate clear written statements for users on inequalities, and show the distribution of affected patients on a map. This helps the NHS to visualise where these inequalities are arising and to target interventions for these affected populations across different geographies.



Example 4: Elective Scorecard

The Elective Scorecard tool is a simple and intuitive dashboard that provides national and regional leadership with a clear oversight of activity, to drive more data-informed decision-making around operational recovery. It is based on active monitoring and assessment of the status of recovery across regions and systems and is continuously evolving to monitor strategic priorities. It is also intended to enable deep dives into key recovery programmes and focus areas such as health inequalities, cancer and population health.

Who the tools are for

Product development using Foundry has a significant range of use cases across the NHS given the breadth of NHS data it contains. Therefore, it has a large number of potential user groups across different levels including:

1. Programme delivery teams (e.g., vaccines, diagnostics, elective recovery)
2. Operational management
3. Senior management
4. Clinical leadership
5. Clinical safety and performance teams
6. Analytical teams
7. Business Intelligence
8. Finance and contracting
9. Elective care programme
10. Commissioning
11. Policy and strategy teams

Key features of developing tools in Foundry

With our experience of developing tools in Foundry and our NHS expertise, we are able to build tools quickly and expertly with a clear understanding of user needs. Tools in Foundry use a breadth of patient-level NHS data, and we ensure that they are easy-to use, intuitive and draw on both our analytical and health and care knowledge.

Some of the key features of our work in developing tools in Foundry include:

1. **Providing cross-functional teams** of data engineers, data scientists, software engineers, product managers and designers to develop with NHS Foundry
2. **Experience developing and deploying applications** in a secure cloud-based environment, for national, regional, ICS, Trust and PCN user groups
3. **Deployment support** for engaging stakeholders
4. **Training** for analytical and non-analytical users
5. **Collaborative pair coding** to upskill team members

Our technical team uses the following applications for development within Foundry:



- **Monocle (aka data lineage):** Exploring existing relationships between datasets
- **Foundry functions** and working with objects
- **Quiver:** Developing simple reporting dashboards
- **Contour:** Exploratory data analysis
- **Reports:** Presentation layer for simple visualisations created in contour
- **Slate:** Development of intuitive analytical tools
- **Code workbooks:** Developing models and quickly building out example data transforms
- **Code repositories:** Developing stable data pipelines and production ready models

Benefits

There are several benefits from our Foundry product development:

- **Intuitive interfaces** built on standard web development libraries and secure cloud platform resulting in faster data-driven decisions
- Applications that **feed off existing breadth of data ontologies**
- **Accurate predictive models** for improved operational efficiency and resource allocation
- **Explainable** statistical model for rapid insights
- **Secure and controlled access**

Onboarding and support packages

CF provides the full range of services needed to support deployment, integration and ongoing usage of the tool. We provide a core analytical support package with the option for additional consultancy support depending on your organisation's requirements. The packages we offer are detailed below. We would be happy to discuss your specific requirements to tailor the best support we can offer. The three levels of support we offer are detailed below:

1. The analytical support package (core)

The core package includes analytical support for:

- Mobilisation:
 - Agree project goals with a lead organisation (to be nominated locally)
 - Issue a data request to each provider within scope
 - Ensure information governance is in place, working with local organisations to complete data privacy assessments and implement data sharing agreements
- The initial setup of the tool, which usually requires around 12 days of support from our Data Innovation Lead. This involves:
 - Three **“train the trainer” sessions** provided onsite
 - The **ongoing licence fee**, which covers data hosting, processes and regular (e.g. monthly or weekly) refresh. We work with each data provider to set up data feeds into the tool – via a secure FTP – at an agreed time interval (likely weekly or monthly), so that the data is automatically loaded into the tool on an ongoing basis)



2. The consultancy support package (optional)

We offer three different optional consultancy support packages to choose from in year 1 and beyond:

- **Bronze: Two weeks** of initial consultancy support to build an example plan from the data based on best practice; this support is led by senior leadership (Associate Partner), supported by a full-time Consultant and full-time Analyst
- **Silver: Four to six weeks** of consultancy support to understand the key drivers and align key stakeholders around strategic priorities to address; this support is led by senior leadership (Partner), supported by full-time team (Manager, Consultant, Analyst)
- **Gold:** As Silver, but with **additional quarterly reviews** over a year to agree priorities; this includes four weeks of additional support (spread over four quarters), led by senior leadership (Partner), supported by a full-time Consultant and full-time Analyst

Our consultancy support is also discounted to reflect economies of scale (e.g. through joint system workshops).

3. Further bespoke consultancy support (optional)

We can also provide additional consultancy support to deploy the tool. The scope and cost will be agreed on a bespoke basis but might include:

- Further product development (such as including other data sources or metrics)
- Support to build an integrated dataset with data warehouse
- Support to develop information governance solutions
- Support to understand existing plans and facilitate agreement to a plan across different providers and commissioners
- Facilitate workshops with clinicians and other colleagues
- Organisational development to support local organisations to deliver the plans

Security and Information Governance

The tool is based on a secure cloud platform and can be accessed by multiple users for multiple locations.

Collective planning is often difficult because of issues around sharing data and information governance. As part of our support, CF will go through a robust information governance process which includes:

- Understanding the information governance requirements of each organisation
- Supporting organisations to complete data privacy assessments, where required
- Co-developing and implementing data sharing agreements
- Ensuring compliance with NHSE requirements

