

# Analytics, Business Intelligence and Reporting

## Data Analysis

**Data Driven Interactive Reporting  
for Greater Understanding of Operational Efficiency**

# TABLE OF CONTENTS

|                                     |   |
|-------------------------------------|---|
| Demand and Capacity Modelling ..... | 3 |
| Features.....                       | 3 |
| Benefits.....                       | 3 |
| Workstream & Areas of focus .....   | 4 |
| Urgent care .....                   | 4 |
| Elective care.....                  | 4 |
| Emergency Department .....          | 4 |
| Resource modelling .....            | 4 |
| How we support implementation ..... | 5 |
| Why Insights? .....                 | 5 |

## Demand and Capacity Modelling

The understanding of the outputs of robust demand and capacity modelling are a fundamental requirement for the planning and delivery of healthcare services in a modern health and social care system. A shared understanding between providers and commissioners on demand, capacity, bottlenecks and constraints can help to:

- Model the required level of capacity to keep pace with demand
- Understand the gap between the required capacity and the current capacity of a service
- Identify any inefficiencies in the system
- Support proactive escalation management against agreed levels of demand
- Understand the reasons why waiting lists grown in elective services
- Calculate the maximum waiting list sizes that are consistent with the clinical pathway milestones
- Model the impact of clearing excess waiting list sizes down to ideal maximum levels
- Ensuring services are delivered within the resources available

### Features

- Modelling tools for ED, Diagnostics, Community, Elective and Urgent Pathways
- Realtime system dashboard reporting calculated metrics for operational escalation management
- Create objective understanding of demand and capacity through modelling tools
- Completely customisable in terms of input and service structure
- Development of scenario models and options to mitigate risks
- Modelling impact of changing demand and capacity on performance indicators
- Enables real-time early warning of potential issues and near-term forecasts
- Expert support through build, implementation and operationalisation of the tool

### Benefits

- Identify recommendations to support service change
- Improved, objective decision making around service changes
- Development of more effective and focussed approach to strategic planning
- Inform strategic planning proposals for improved responsiveness and patient care
- Proactive management of demand and capacity risks to service delivery
- A system which can move towards being predictive rather than reactive
- Enables clear identification of delivery risk through scenario planning
- Support from highly skilled, professionally trained leaders and clinicians
- Modelling tools which support operational delivery and performance assurance

Our interactive reports are flexible and can be adapted to meet individual health economies specific requirements. We utilise a range of historical data, predictive modelling and benchmarking to inform our analysis and scenarios to be tested locally to enable teams to evaluate the impact of any management interventions.

The outputs from our reporting suites provide detailed analytical information regarding any capacity constraints, which enables healthcare staff to make key decisions about how to deal with pressures and help deliver improved care.

The table below identifies a number of areas of focus which can be undertaken using our demand and capacity modelling:

## **Workstream & Areas of focus**

### **Urgent care**

- Activity across the system
- Calculated system metrics for operational and urgent care escalation management
- Real-time performance dashboard
- OPEL management
- Winter planning and surge management
- System wide reconfigurations

### **Elective care**

- System & Trust wide and individual speciality level demand and capacity
- Outpatient, Diagnostic, Cancer,
- Theatre capacity
- Critical care capacity
- Workforce
- Elective management tools – waiting list size, backlog maintenance
- Access documents
- Scenario modelling – referral management and delivery model changes including service reconfigurations

### **Emergency Department**

- Flow rate through the department
- Heatmaps on peaks in demand and capacity constraints – senior decision makers
- Real-time demand and capacity escalation triggers and tool
- Site Management alerts and triggers

### **Resource modelling**

- Bed capacity modelling
- Community capacity modelling
- Diagnostic modelling - emergency and elective
- Workforce capacity modelling – medical, therapy, nursing

## How we support implementation

A team of skilled analysts and project delivery will be assigned, with executive level oversight and Quality Assurance undertaken as routine. We will work with the SRO for the organisation in understanding the specific requirements and understand the data specification. The project lead will ensure all governance is in place and will complete the appropriate data sharing agreements and data privacy assessments to enable us to work safely with you. Data requirements will be requested by the analyst to the Trust information team, supported by the organisations SRO. There will be training sessions for operational and analytical members of the trust so that they become very familiar with the inputs and outputs of the tool. We can also provide additional support to clinical and operational teams to support the tool being embedded in how they use data for delivery and also in the production of improvement actions/plans for assurance and recovery programmes.

## Why Insights?

Insights are unique in being able to offer skilled clinical and operational people who have worked in health and social care for much of their careers, along with a highly skilled analytical team who thrive on producing high quality tools and reporting functionality to support health and social care staff to use data for delivery. Our approach is focused on ensuring strong relationships are built with key individuals, developing a baseline understanding of current state against best practice, working with our combined analytical and experienced subject matter experts to support and facilitate improvement by using data effectively to make informed decisions around future delivery models

