# KPMG On-Line Decision Engines (KODE) for healthcare

KPMG

- Our hybrid cloud analytics playform harvests thousands of signals which can be used to model service consumption

- KODE enables you to:
  - Add your own metrics to our signals database
  - Process your data through our bespoke algorithms
  - Develop the dashboards you need to understand how to provide safe, high-quality, cost-effective care

How do you reconfigure out-of-hospital care

- Analyse demand by considering the nature of the population and how it will change, using a range of publically-available data alongside more speific data from care providers

- Model citizens into categories such as localities or patients with particular health issues, that need to be addressed at scale and give them notional budgets

- Analyse whether this is good for citizens by reviewing travel times and other access-related issues

- Review the clinical, operational and financial impact of proposed changes
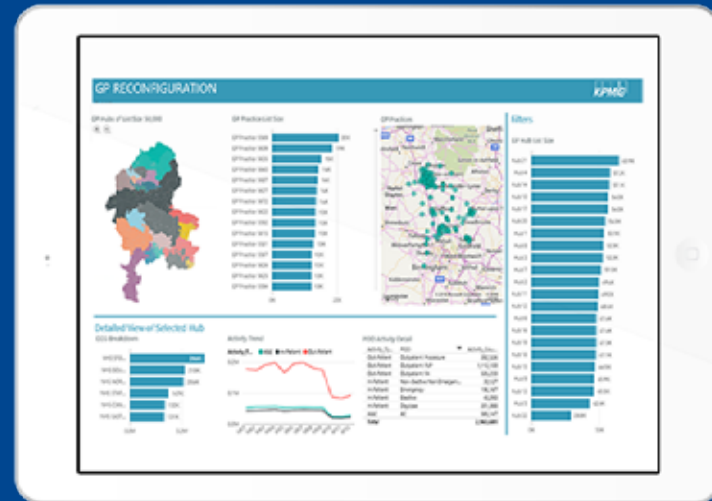
Transforming healthcare with data and analytics

KPMG Healthcare - Get in touch

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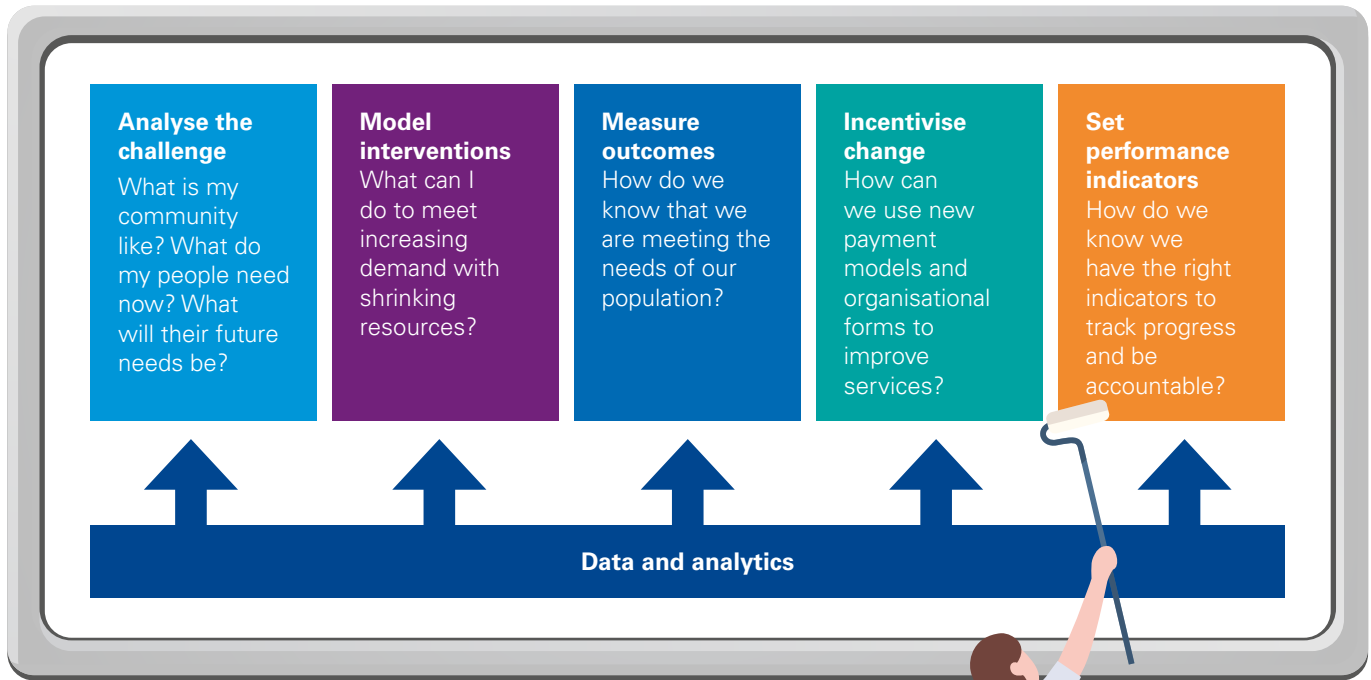Tel: +44 (0) 7900 053439
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Data and analytics enables you to…

Analyse the challenge	Model interventions	Measure outcomes	Incentivise change	Set performance indicators
What is my community like? What do my people need now? What will their future needs be?	What can I do to meet increasing demand with shrinking resources?	How do we know that we are meeting the needs of our population?	How can we use new payment models and organisational forms to improve services?	How do we know we have the right indicators to track progress and be accountable?

Data and analytics

Data and analytics

How often do you say to yourself, "If only I had known that before I decided to act?" We make decisions based on the evidence available to us at the time. Sometimes we lack advice. Sometimes the advice is confusing and full of contradiction, sometimes we simply cannot get access to it – because it is locked in an IT system in a different building.

The role of data and analytics teams is to provide trusted insight into all parts of the care sector at the time it is needed, in the right format, with the right depth and scope of detail necessary to drive service improvement.

The issues we all face are varied and significant, but using data and analytics can help:

- Operational Excellence: Clinicians can become more efficient by predicting patient risk and addressing the root causes, in collaboration with their colleagues.
- Managing Patient Flow: System reformers can ensure patients receive care in the most appropriate setting using demand and capacity modelling to drive plans.
- Removing Duplication: Transformation teams can use benchmarking analysis to identify where their care system is operating inefficiently and then set targets for change.
- Rationalise Infrastructure: Finance directors can assess the use of resources and find economies of scale.

We live in a connected world

Trends…

…and their impact on the healthcare sector

| Trends…	…and their impact on the healthcare sector
The Internet of Things (IoT) is a web of connected machines generating real time data	Providing the data to predict clinical needs quickly but raising cyber security threats
Cloud computing provides a cost-effective way of connecting people across organisations	Providing the information to collaborate and assess benchmarked performance but raising questions about how we share data
Mobile devices enable us to work where we want and when we want	Providing the knowledge we need to act quickly but challenging us to deliver trusted and consumable content
Big Data provides insight across many data sets using sophisticated science	Providing the opportunity to transform care through better informed decision making but raising ethical risks

How KPMG is using data and analytics to help solve business challenges in healthcare
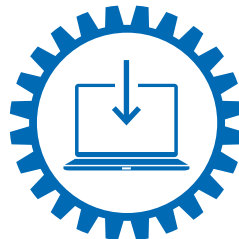
Using D&A to gain insight into health system issues

- The Cheshire and Merseyside health economy is undertaking the second largest health transformation programme in the NHS and as a system has a forecast 'do nothing' deficit of £908 million by 2021.
- KPMG deployed a suite of data and analytic tools (benchmarking, geo-spatial mapping, workforce analysis) to help diagnose organisation and system problems.
- Senior clinicians worked with KPMG to ensure that the right data and information was interrogated, which meant there was a strong evidence base for the case for change.
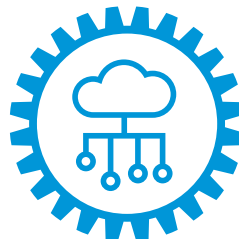
Designing new ways of delivering out-of-hospital care

- KPMG is helping the London borough of Bexley develop new ways of delivering and funding out-of-hospital care for the area's 237,000 residents.
- Data and analytics are at the heart of the work. We're helping Bexley calculate projected health and care spend for different care settings and population groups and model new ways of paying providers.
- Using a data-led approach, we're also supporting Bexley's clinicians to design new care models to meet the future needs of their patients.

Designing an analytics platform to support the regulation of members' performance and training

- The General Medical Council (GMC) is the healthcare regulator responsible for the effective and efficient regulation of doctors across the UK.
- KPMG worked with the GMC team to develop a D&A strategy that helps manage and monitor its members' training and performance. The strategy included an implementation plan for the development of an analytics platform. By centralising disparate data sets it allows users to quickly identify potential opportunities to improve doctor training and performance.
- The platform was designed after extensive stakeholder consultation, which resulted in an agreed product specification, carefully targeted to address the regulator's priority objectives.

> " The data and analytics capabilities deployed by KPMG in the UK allowed us to assess the likely impact of current plans, develop various clinical scenarios, and compare these to an idealised future optimal health system for urgent and emergency care services. This redesign programme of work will touch 2.5 million lives. "

Dr. Andy Davies
Cheshire and Merseyside Urgent and Emergency Care Redesign Programme