

Realising the value of healthcare data

Unlocking the power of healthcare data to fuel innovation in medical research and improve patient care is at the heart of today's healthcare revolution. When curated or consolidated into a single longitudinal data set, patient-level records will trace a complete story of a patient's health, wellness, diagnosis, treatments, medical procedures and outcomes. Healthcare providers need to recognise patient data for what it is: a valuable intangible asset desired by multiple stakeholders, a treasure trove of information.

Among the universe of providers holding significant data assets, the UK's NHS is the single largest integrated healthcare provider in the world, its patient records covering the entire UK population from birth through to death. There are two primary approaches to quantifying the value of data:

1. A market-based approach, calculating the implied "per record" valuation multiples of comparable data assets or valuation multiples of companies with significant patient data assets.
2. An income-based approach, which quantifies value based on the economic benefit to be generated from the curated data set.

Applying these approaches, we estimate that the 55 million patient records held by the NHS today may have an indicative market value of several billion pounds to a commercial organisation. We estimate also that the value of the curated NHS data set could be as much as £5bn per annum and deliver around £4.6bn of benefit to patients per annum — generated through potential operational savings for the NHS, enhanced patient outcomes and creation of wider economic benefits to the UK, generated through 'big data', artificial intelligence and personalised medicine.

The curated NHS data set is an intangible asset with a current valuation of several billion pounds and a realisation of £9.6bn per annum in benefits that could be unlocked following the generation of insights.

There will be a significant process and technology cost associated with aggregation, cleaning, curating, hosting, analysing and protecting the transformation of these raw data records into a consolidated longitudinal patient-level data set. The costs associated with this data transformation require further research and clearly could impact data set valuation. To ensure success the NHS and the UK government will need to partner with companies that can help unlock these valuable patient insights.

It is critical that the analyses and innovations adhere with medical ethics and research regulations. Patients have to be informed and need to be confident that their data is being used for their own and public good, and that their privacy and rights are safeguarded.

Ultimately, analysis and insights generated from this unique NHS data set can help the UK Government achieve its health priorities on prevention, care and costs, place the NHS and the UK at the forefront of health care innovation, and make the NHS the envy of the world.

To find out more please see EY's report 'Realising the value of health care data: a framework for the future' https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/life-sciences/life-sciences-pdfs/ey-value-of-health-care-data-v20-final.pdf