

Transforming healthcare

with modern data platforms

8 February 2022





Agenda

01 The current landscape
of healthcare data

02 Modern data platforms

03 Case study

04 Final thoughts





The current landscape of healthcare data





The current landscape of healthcare data



Lack of **capability and capacity** to manage the pace of change

84%

of health execs surveyed said health systems used analytics to a 'limited or minimal extent to generate commercial or outcome insights.'¹

Siloed physical and virtual care data does not enable a holistic view of services

The average health system has

16

different electronic health record (EHR) platforms.²

Lack full understanding of their **patients and consumers** beyond limited clinical data sets, which are often siloed in numerous systems

73%

of clinicians surveyed say they do not have all of the information they need to become a value-based system.³

Limited data integration and data fluidity due to **legacy systems**

Less than

1 in 3

US hospitals can find, send and receive electronic medical records (EMRs) for patients who receive care somewhere else, a new study suggests.⁴

¹ Nathan Eddy, "Too many providers are failing to meaningfully integrate data analytics," *Healthcare IT News website*, <https://www.healthcareitnews.com/news/too-many-providers-are-failing-meaningfully-integrate-data-analytics>, accessed 10 May 2021.

² Tom Sullivan, "Why EHR data interoperability is such a mess in 3 charts," *Healthcare IT News website*, <https://www.healthcareitnews.com/news/why-ehr-data-interoperability-such-mess-3-charts>, accessed 10 May 2021.

³ Eli Richman, "Doctors, executives see little progress on value-based care," *Fierce Healthcare website*, <https://www.fiercehealthcare.com/hospitals-health-systems/doctors-executives-see-little-progress-value-based-care-survey>, accessed 10 May 2021.

⁴ Lisa Rapaport, "Few U.S. hospitals can fully share electronic medical records," *Reuters website*, <https://www.reuters.com/article/us-health-medicalrecords-sharing/few-u-s-hospitals-can-fully-share-electronic-medical-records-idUSKCN1C72UV>, accessed 10 May 2021.





Data is at the heart of business-informed decisions, yet most health care professionals only use a fraction of the patient data available

Data is too old

Health care is usually delivered by complex ecosystems of partners working together – from neighborhood clinics and hospital departments to specialist labs and other third parties. The flow of data around these systems can be very slow, or non-existent. To drive better health outcomes, you need near real-time insights – which means data needs to travel fast.

Data is too narrow

Speed isn't the only barrier. To create a full picture of an individual patient or a complete health system, you need data from a comprehensive range of sources. But accessing data from a wide range of sources can mean negotiating permission and privacy constraints with a wide range of data owners and their IT systems. This takes time and technical resources, both of which are in short supply.

Data provides information, not insight

It takes considerable skill to turn raw data from different sources into useable insights that drive real-world decisions. At most health organisations, analytical and IT experts tend to focus on projects that need immediate resolution.





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Modern data Platforms

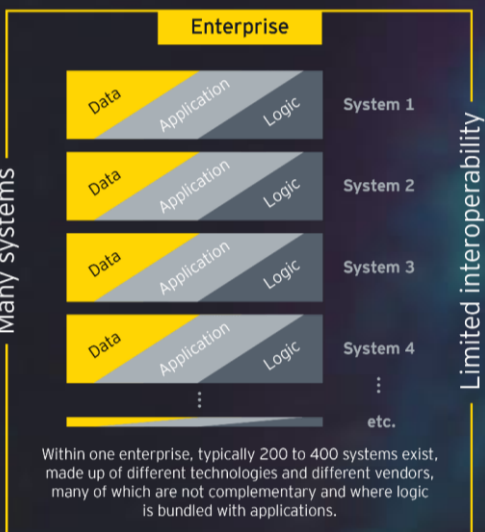




Health ecosystems require platforms based on pull communication and maximal datasets

Legacy

Many systems all with intimately bound data logic and applications



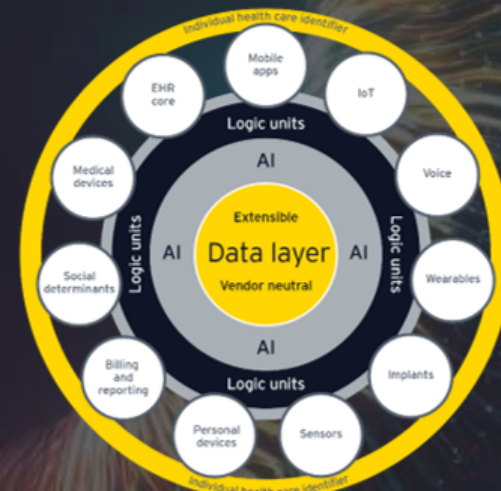
Modern Technology Architecture's separate the architecture into different layers that organise transactions and interactions:

- The data layer
- The application layer and the logic layer

Modern Data Platforms provide the platform to shift from siloed vaults of data, to a holistic and complete data set that can drive true insights.

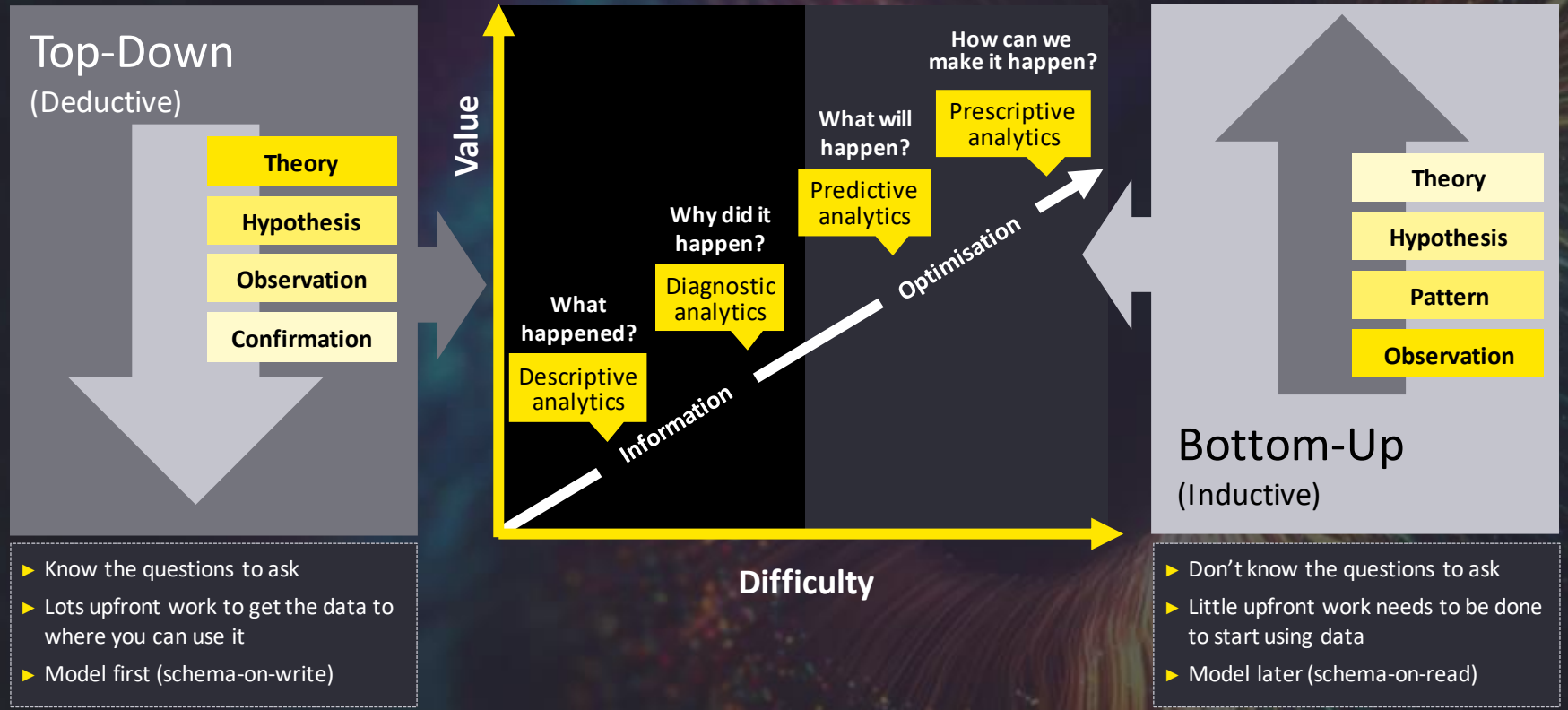
Modern

A technology ecosystem for clinicians, professionals and patients; built around a modern data architecture accessed by applications in real time through composability





Modern Data Platforms use a 'bottom up' approach





Modern data platforms provide the platform for holistic health

Open: modern data platforms are based on open, non propriety data standards

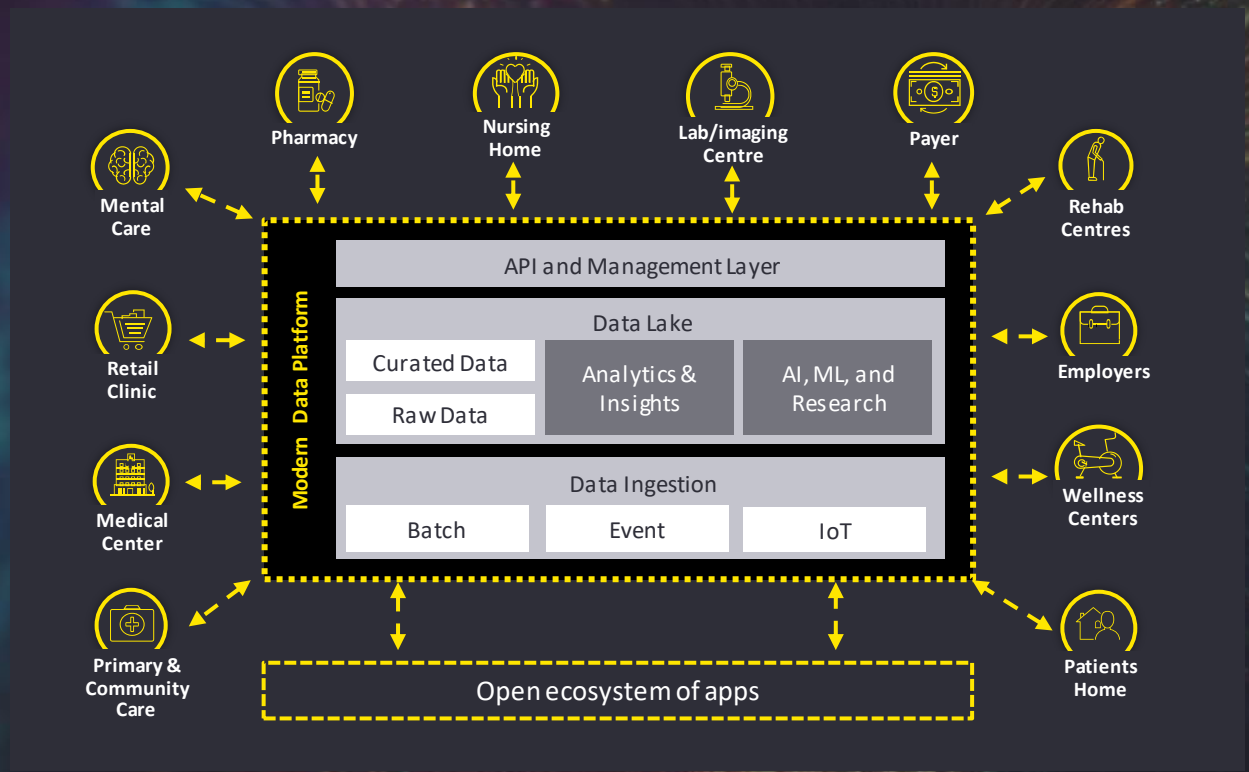
Agile and iterative: modern data platforms provide for a use case driven approach i.e., deliver specific data components for specific use cases delivering value early and often

Data intelligence: adding a layer of intelligence based on the aggregation of data from a myriad of sources

Patient: providing a seamless customer journey matching the individual preferences of customers

Shared care: supporting the seamless collaboration between care professionals from different organisations

Connected things: supporting the real time collection and processing of sensor input from connected things





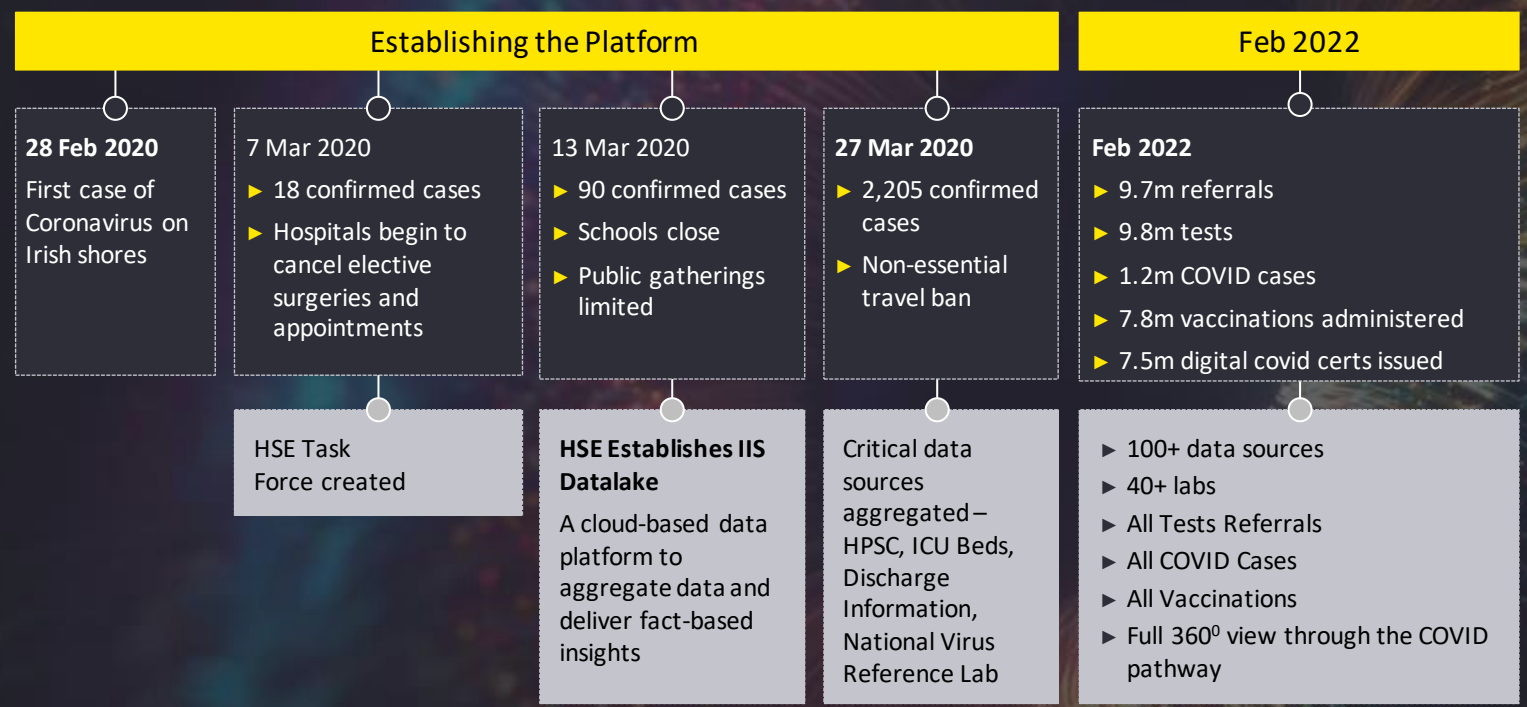
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Case
study





HSE IIS Datalake: Background and context



The IIS Datalake was established during COVID as the primary source of truth for aggregated information related to COVID. Multidimensional data sources were aggregated to drive insights into the capacity of the Health Service, and what is happening in the community with the disease.





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Final thoughts





Connected healthcare means better healthcare

Modern Data Platforms can be used to create open, connected technology ecosystems that help enable better patient experiences and better health outcomes

And when it's quicker and easier to share deeper data, everyone serving the patient benefits.

1

Data is available in a format that works

2

Data is available where and when it's needed

3

Future-ready and scalable



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