Frequently asked questions about the IBM Explorys Platform

Answers to many of the challenges healthcare leaders face when selecting a population health management solution

Watson Health™

IBM

Introduction

This document provides answers to many of the questions customers have posed during the process of selecting Watson Health™. It is intended to address many of the challenges that healthcare leaders face when selecting a solution from a wide range of vendors who have recently rushed into the population health management space.

Q **What is the IBM® Explorys Platform?**

A The IBM Explorys Platform helps healthcare organizations to turn big data into intelligence so that they can improve quality, introduce innovative products, and drive out unnecessary costs – essential in order to survive and thrive in the new value-based economy.

Built upon a cost effective unified healthcare information super-structure, the IBM Explorys Platform enables:
- Contract, population, provider, and risk intelligence
- Information injection into care process and workflow to help mitigate risk and improve outcomes
- Performance and economics analytics and reporting
- The ability to rapidly form regionally and nationally integrated care networks
- Turn-key programs for value-based offers such as accountable care organization (ACO), direct-to-employer, and Medicare Advantage
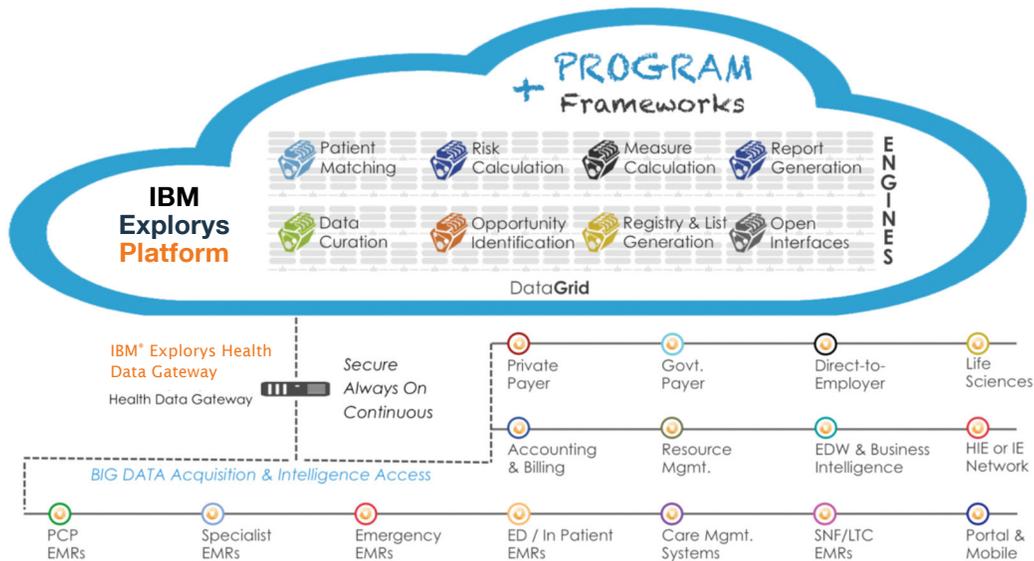
Figure 1: IBM Explorys Platform Program and frameworks

Q Which healthcare leaders have chosen the IBM Explorys Platform?

A The IBM Explorys Platform has been adopted by some of the largest and most innovative healthcare systems in the country to power their value-based care analytics, population health management, and ACO initiatives.

Q What is big data and will healthcare organizations struggle to harvest it on their own?

A No single healthcare system has enough internal data to generate the insight necessary to effectively operate in the new value-based care economy where knowing risk and how to effectively manage it is necessary to thrive.

Big data is defined as high velocity, diverse in structure, dispersed across many places, and voluminous. It can consist of clinical, operational, and financial facts that originate not just from within the four walls of a healthcare system, but also from a multitude of payers, independent providers, and other healthcare systems. Big data can include more than just claims and medical records; it also encompasses other important details such as missed appointments, workflows, patient derived data, geographical factors, demographics, and risk scores.

Healthcare organizations, payers, independent practices, and other third parties tend to be highly reticent to exchange the amount and depth of data necessary for these kinds of initiatives to be successful; especially when that data would be stored behind the walls of organizations that have competitive or complex business relationships with them. Given the sensitivities and restrictions around data governance, operational data, and anti-trust regulations, healthcare systems have looked to the IBM Explorys Platform to provide a single place for them to share and leverage data to reduce unnecessary utilization and improve quality.

The IBM Explorys Platform was designed from the beginning to address these complex business and legal requirements associated with patient and financial data sharing between disparate healthcare systems and plans. This model provides the foundation for the clinically integrated networks, partner bundled care programs, and ACOs that Watson Health serves today.

– Over 360 hospitals
– 26 integrated health networks
– More than 920,000 providers
– 400 billion data elements
– Members deliver $69 billion in care annually across 64 million unique patients

Q My EMR vendor says that they include population management in their solution. If so, why would I need the IBM Explorys Platform?

A While electronic medical records (EMRs) can support a wide range of clinical and billing data, they are designed to be transactional, typically enabling the management of one patient at a time or small groups of patients in a basic registry. As such, their underlying technology infrastructures are generally not designed for analyzing risk, identifying leakage outside the system, predicting outcomes and costs, or assimilating data across many systems. Transaction data systems like these are optimized to access one record at a time, not billions per second; thus prohibiting their ability to serve both functions well.

On the other hand, the IBM Explorys Platform was designed by clinicians from the start to support big data. Watson Health pioneered big data in healthcare using Hadoop and other massively parallel processing technologies that were originally inspired by companies like Google, Facebook, and Yahoo. This underlying architecture has enabled Watson Health to curate 400 billion data elements, more than 360 hospitals and 920,000 providers. EMRs serve a different purpose.

Chilmark Research, an independent analyst firm, rated EMR companies' population management capabilities considerably below the IBM Explorys Platform in their 2013 Market Trends report: "Clinical Analytics for Population Health Management."[1] EMRs were designed to manage patient care, not member care and population health. The distinction between patients and members is important as healthcare systems take on the responsibility of managing risks of people (members) that they may not have seen yet, but are still responsible for.

Q Why is EMR independence so important to success?

A The EMR landscape if filled with fierce competitors who are not accustomed or necessarily inclined to cooperate with one another without a clear economic reason to do so. Despite the push from government and clinical leaders, interoperability continues to be a serious challenge across healthcare. Many also see a need for a clear line of demarcation between EMRs and quality reporting.

EMR vendors remain locked in fierce battle for market share. EMR vendors are likely to be more open to collaborating with companies like IBM that do not pose a competitive risk to their core business. In fact, with hundreds of live connectors to EMRs today, the IBM Explorys Platform has demonstrated that independence and impartiality works.

Q What total cost of ownership (TCO) do I need to consider when evaluating my organization's approach?

A The big data and population management space has seen a large influx in vendors offering "low cost" software and database technology to healthcare systems. Some EMR vendors have begun to even include it "for free" as part of their offerings in an attempt to develop further dependence on their core solutions. But as the saying goes, "there are no free lunches".

While intriguing, these approaches often overlook the actual investments necessary to be successfully implemented. For instance, effectively managing big data requires substantial capital expenditures in server, storage, ontology licenses, database software, data center components, and network infrastructure for multiple environments including production, test, development, and disaster recovery. For large organizations, these costs alone often run into the millions.

Even larger, however, is the investment needed for the people to design, develop, implement, and support these initiatives. Depending on your approach and scale, this process can take years to get off the ground and continue to require large highly skilled healthcare informatics teams to continuously maintain ontology mappings, curate data, tune data processing logic, and support the myriad of questions that arise from providers as they use the data. To add to these challenges, people with big data and clinical informatics skills are in extremely high demand and can be very difficult to recruit and retain.

When considering the total cost of acquisition and ownership, the IBM Explorys Platform offers a considerably more cost effective alternative. The Watson Health cloud-based approach requires no capital expenditures and because it supports so many healthcare systems on a shared platform, the efficiencies of scale allow Watson Health to deliver world-class computing capabilities at a small fraction of what it would cost to build and operate individually.

In addition to the computing platform, the subscription also enables organizations to leverage Watson Health's clinical informatics and data science teams. Because Watson Health has seen so many varieties of data and curated more than 400 billion elements, Watson Health has developed not only efficiencies of scale, but also efficiencies of quality. The systems, algorithms, and people do the data mapping, cleansing, curation, and standardization, allowing your best and brightest talent to focus on ways to put big data to work to transform care rather than recreating capabilities already available.

Q **Do we need a Health Information Exchange (HIE) if we implement the IBM Explorys Platform?**

A This depends. HIEs can offer useful "plumbing" between disparate systems. They can be effective for transitions of care between providers from disparate organizations and can sometimes satisfy components of Meaningful Use. HIEs provide protected and rule-based bursts of data exchange in a standardized, but limited, format such as CCD. This "fabric" can provide useful capabilities for providers to share and request individual patient records, make electronic referrals, define structured workflow, and send intelligent alerts from the IBM Explorys Platform into the providers' EMRs. In these cases, the IBM Explorys Platform and an HIE can compliment each other well.

From a data acquisition standpoint, the IBM Explorys Platform collects and processes a much wider and deeper data set than HIEs are designed to process. For instance, the IBM Explorys Platform may collect each clinical, workflow, operational, and financial element of an episode of care, whereas the HIE is typically focused on those elements contained in their Continuity of Care (CCD) models. This level of "high fidelity data" is then computed just-in-time within the IBM Explorys Platform curation, risk, and measure engines to identify patients with the highest opportunity to mitigate risk, close gaps, and manage intelligently within the care management process.

Q **Can my internal data warehouse be used to support our value-based care and population management initiatives?**

A Absolutely! Some healthcare systems have made multi-year/multi-million dollar investments in data warehouses. These systems are very useful for analyzing internal accounting, human resource, and operations data or to support unique business intelligence. Because the IBM Explorys Platform is an open platform, data in the IBM® Explorys SuperMart can be mined and combined with data warehouses to form powerful internal datasets. SuperMart provides powerful and flexible access to raw and transformed data via standard open source and commercial report and extraction, transformation and loading (ETL) tools.

Q **How does the IBM Explorys Platform integrate into our existing workflows, EMRs, care management systems, and patient outreach systems?**

A The IBM Explorys Platform supports industry interoperability standards to enable single sign-on and context awareness so that providers or care managers can remain within the applications and workflow they have today. This enhances EMR, care management systems, and engagement solutions by providing a wide array of intelligence for decision support, risk scoring, care gap awareness, chart amalgamation, and prioritized patient engagement.

Q **How does the IBM Explorys Platform enable healthcare organizations to optimize their return on their EMR investments?**

A EMRs are expensive, but worthwhile, undertakings. Key to Meaningful Use, they are an important investment, costing millions of dollars to acquire and effectively integrate into providers' workflow.

The accumulation of data over time is an incredibly valuable byproduct of the EMR. When mined and converted into intelligence, it can be used to improve quality and outcomes and reduce unnecessary cost. For a small fraction of the investment relative to EMR systems, the IBM Explorys Platform allows healthcare organizations to reap these benefits while also identifying opportunities to further improve how providers utilize this transformative technology.

Q **What do independent industry analysts think?**

A The IBM Explorys Platform has achieved significant acclaim among independent analyst firms such as KLAS, Frost and Sullivan, and Chilmark Research.

Focusing on four main pillars of population health including data aggregation, risk stratification, care coordination and patient outreach, the KLAS 2013 Population Health Management Scouting Report described the IBM Explorys Platform as "adept at aggregating data, with its easy-to-use portal for physicians and care coordinators" and "a customer-centric company and providing a quick path to value."[2]

About IBM Watson Health

In April 2015, IBM launched IBM Watson Health and the Watson Health Cloud platform. The new unit will work with doctors, researchers and insurers to help them innovate by surfacing insights from the massive amount of personal health data being created and shared daily. The Watson Health Cloud can mask patient identities and allow for information to be shared and combined with a dynamic and constantly growing aggregated view of clinical, research and social health data.

For more information on IBM Watson Health, visit: ibm.com/watsonhealth.

Footnotes

1 Clinical Analytics for Population Health
Management report, Chilmark Research,
8/26/2013; https://www.chilmarkresearch.com/
chilmark_report/2013-clinical-anaytics-for-pop-
health-market-trends-report/

2 Population Health Management 2013
– "Scouting the PHM Roster", quotes are
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aspx?ReturnUrl=%2fklasreports#/krms/67/0

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