Bayer and IQVIA Harmonize Global Healthcare Data Using Human Data Science Cloud

Michael Townsend

EXECUTIVE SNAPSHOT

FIGURE 1

Executive Snapshot: Bayer and IQVIA Harmonize Global Healthcare Data Using Human Data Science Cloud

Global life science companies are investing in cloud-based platforms to harmonize country-level data on a worldwide basis to deliver data at scale for commercial teams. By combining proprietary data such as CRM data with external data as a service and other sources, solutions can be scaled and accessed by multiple teams, ensuring security, efficiency, and data integrity in commercial operations.

Key Takeaways

- Global healthcare data platforms such as IQVIA's Human Data Science Cloud allow life science companies to access harmonized data from all countries and regions.
- Life science companies are leveraging migration of their data and applications to the cloud.
- Proprietary internal data (such as CRM) can be combined with third-party data in global platforms and accessed by multiple teams without transmitting large data sets.
- Security and integrity of commercial data can be strengthened while improving efficiency.

Recommended Actions

- Move data to cloud-based platforms for improved access and security.
- Survey users to evaluate the data needs of all countries and regions.
- Select trusted partners and vendors by considering vertical (life science) and technical expertise. Speak to customer references of peer companies to evaluate potential vendors.
- When selecting platforms or applications, consider future needs and scalability before deciding on major projects such as data platforms and critical applications.

Source: IDC, 2021

SITUATION OVERVIEW

In 2019, Bayer was considering building a solution to consolidate its internal and external commercial data, including data from a number of IQVIA Data-as-a-Service (DaaS) offerings, which Bayer had used for many years in its commercial operations. Among its challenges was harmonizing multiple-country data, which historically had been purchased from IQVIA and other data vendors on a country-by-country basis then combined with internal Bayer data from its customer relationship management (CRM) and other sources. Recently, IDC spoke with Boris Mirnik, principal data architect at Bayer in Berlin, to discuss the company's experience.

Traditionally country-level data had been supplied to in-country Bayer commercial groups, with each country receiving data in its preferred formats. This data, which could vary by country, was then collected into Bayer's data lake, then harmonized by Bayer. In many cases, Bayer had to perform considerable manipulation of the data prior to international use.

In 2019, IQVIA introduced the Human Data Science Cloud (HDSC), a healthcare-specialized big data management tool. HDSC combines IQVIA's global healthcare data with advanced analytics and data science to more easily and safely access, digitize, transform, and deliver data at scale for life science companies. When HDSC achieved the major goals of its internal project, Bayer quickly enlisted IQVIA's new solution to accomplish its international data harmonization.

By early 2021, "all merging of data had been completed," according to Mirnik. Part of his task was "successfully demonstrating the integrity of the data to management in the new format." Having accomplished this, Mirnik predicted that the HDSC solution can be quickly scaled across the data of other countries. A key enabler of this solution was widespread cloud adoption at life science companies and technology vendors, allowing companies to become more agile in data implementations.

In Bayer's implementation, HDSC was further streamlined using Snowflake Data Marketplace, which provides access to Bayer, IQVIA, and third-party data on a common platform worldwide without copying or moving data. Although there are multiple options for deployment of HDSC, IQVIA and Snowflake have partnered to deliver commercial healthcare data products at scale.

Bayer started by converting its data in the largest markets first, with plans to roll out capabilities globally. The data lake currently contains commercial data such as CRM data, with marketing content to follow. Other processes will follow once this data conversion is complete globally, with advanced analytics applied to speed insights from globally harmonized data sets.

The process and resulting data sets will take European privacy rules into account. Personal provider information such as addresses, phone numbers, and prescribing history cannot be disclosed in the European Union under privacy laws like GDPR without affirmative consent, in contrast with the United States. Other countries such as Russia and China have complicated administrative steps, which must be followed prior to inclusion in disclosed data.

In a parallel effort for HDSC by Bayer in the United States, project managers have noted Bayer's shift from fragmented investments in data technology and initiatives, which were often process-centric, to a data-centric focus emphasizing digital transformation of value chains and development of new business models. Previously data integration could take several days with external data delivered weekly. Using IQVIA's HDSC (also implemented using Snowflake), data is available immediately and in real time. "Landing" data has been reduced from 100 to 20 hours, change requests are

accomplished the same day, and faster analysis and comparison on multiple files has resulted in faster derived insights. Importantly, data transfer work has been eliminated, resulting in improved security and data integrity. Statistics, visualizations, and dashboards are being utilized along with more cloud-based analytics.

In IDC's 2020 *Worldwide Industry CloudPath Survey,* 68% of pharma and biotech respondents indicated that they currently use the cloud for external industry data sources and analytics such as provider customer data, key opinion leader data, and prescription data (see Figure 2). This figure dropped somewhat on the same survey in 2021, which had an n value of 50 versus 123 in 2020. In the 2020 survey, about 61% of respondents were running these processes on a public cloud, and 32% were running a hybrid cloud model. Over 41% moved these applications to a public cloud from a previous private cloud environment (see Figure 3).

FIGURE 2

Life Science Cloud Deployment for External Industry Data (HCP, KOL, Rx) Analytics

Q.   *Please indicate your organization's plans for external industry data (HCP, KOL, Rx, etc.) analytics in the cloud.*
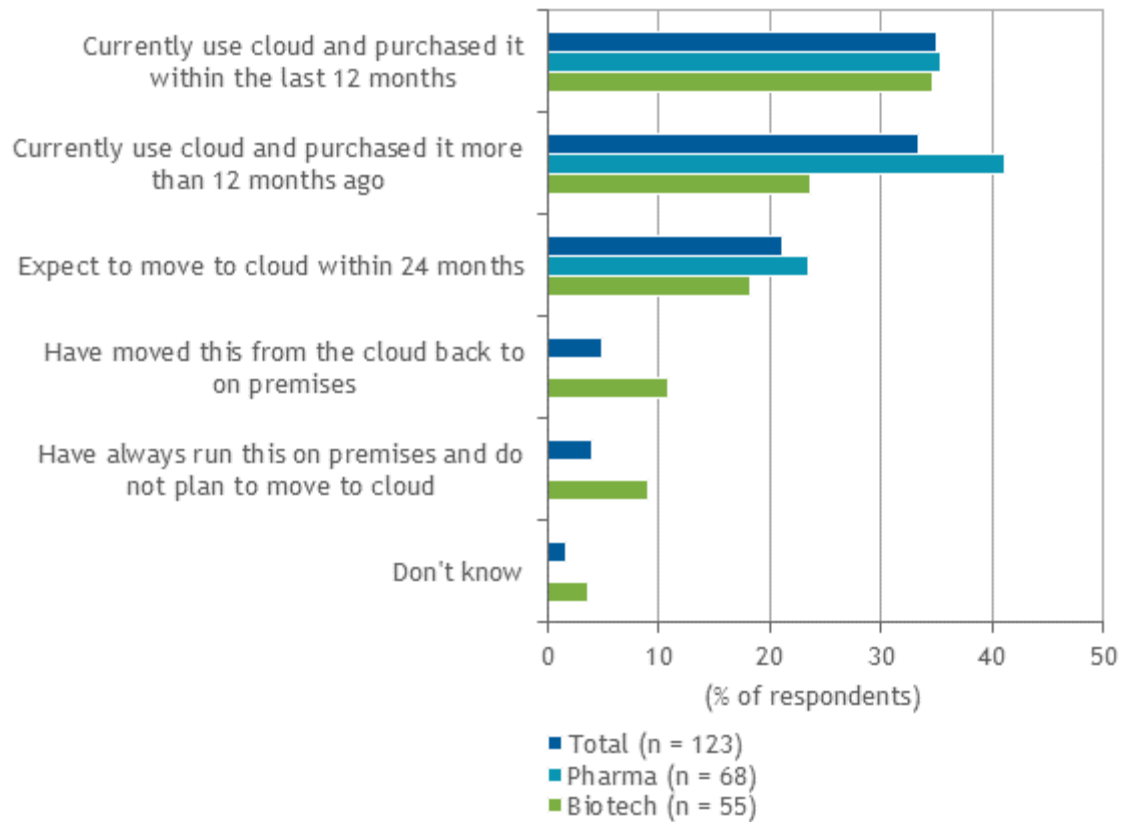
Base = respondents who indicated organization's principal business activity is pharma or biotech

Notes:

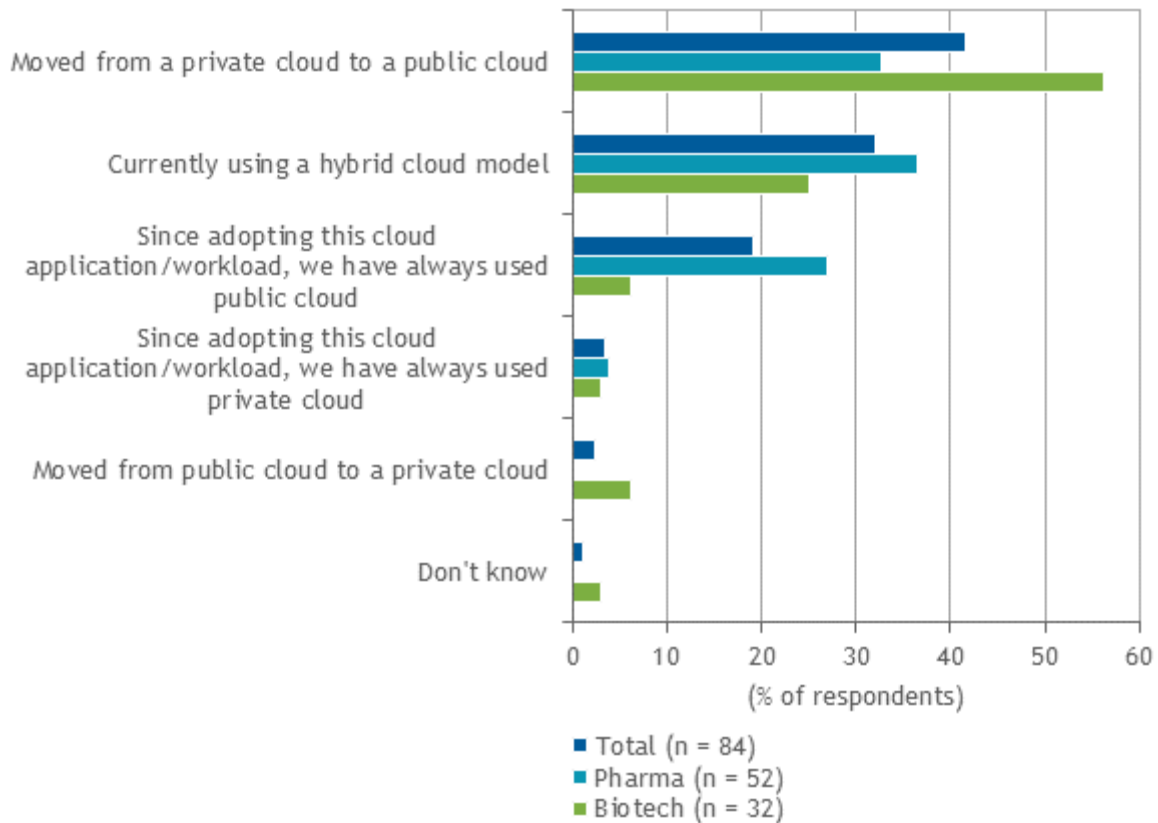Data is managed by IDC's quantitative research group.

Data is not weighted.

Use caution when interpreting small sample sizes.

Source: IDC's *Worldwide Industry CloudPath Survey,* May 2020

FIGURE 3

Life Science Cloud Environment for External Industry Data (HCP, KOL, Rx) Analytics

Q. *How would you best describe the cloud environment your external industry data (HCP, KOL, Rx, etc.) analytics applications are in?*

Base = respondents who indicated their organization currently uses external industry data (HCP, KOL, Rx, etc.) analytics application in cloud

Notes:

Data is managed by IDC's quantitative research group.

Data is not weighted.

Use caution when interpreting small sample sizes.

Source: IDC's *Worldwide Industry CloudPath Survey,* May 2020

Biopharma companies are investing in new technology to streamline and globalize their external and internal commercial data. With widespread cloud adoption and data management tools, combined with advanced analytics, machine learning, and AI, data and insights are being generated in real time to assist global commercial teams in reaching providers and patients with critical information on prescription drugs that can improve, extend, and save lives.

ADVICE FOR THE TECHNOLOGY BUYER

- Move data to cloud-based platforms for improved access and security.
- Survey business users to evaluate requirements of countries and regions.
- Select trusted partners based on life science as well as technical offerings and using vetted customer references.
- Consider future requirements before selecting vendors, partners, and applications.

LEARN MORE

Related Research

- *IDC's Worldwide Digital Transformation Use Case Taxonomy, 2021: Life Sciences* (IDC #US47235121, August 2021)
- *The Future of Intelligence for Life Sciences: Transcending Boundaries* (IDC #US47730821, June 2021)
- *U.S. Life Science Top 10 Market Trends for 2021* (IDC #US46583321, February 2021)
- *IDC MarketScape: Worldwide Life Science Sales and Marketing Digital Transformation Services 2020 Vendor Assessment* (IDC #US42724918, December 2020)

Synopsis

This IDC Perspective discusses about Bayer and IQVIA harmonizing global healthcare data using Human Data Science Cloud. Biopharma companies are investing in new technology to streamline and globalize their external and internal commercial data. With widespread cloud adoption and data management tools, combined with advanced analytics, machine learning, and AI, data and insights are being generated in real time to assist global commercial teams in reaching providers and patients with critical information on prescription drugs that can improve, extend, and save lives.

"Global life science companies are investing in cloud-based platforms to deliver insights for commercial teams using harmonized global data sets and advanced analytics. By combining proprietary CRM and other company data with third-party data in a unified platform, life science companies are improving access, security, and data integrity while improving efficiency in their global operations," says Michael Townsend, research director for Commercial Life Science Strategies at IDC Health Insights.

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Global Headquarters

140 Kendrick Street
Building B
Needham, MA 02494
USA
508.872.8200
Twitter: @IDC
blogs.idc.com
www.idc.com