Deloitte.

The future of pharma services

The growing impact of data in outsourced pharma services

M&A

Contents

Foreword

Welcome to our report exploring the disruptive data trends we see as being the key drivers of M&A activity in outsourced life science services.

In recent years, the transactions we have worked on in the outsourced pharma services space have had a growing focus on data. And with further advances in technology, analytics and digitisation, we expect this to only increase in the coming years.

In 2019, over £9 billion was spent on disclosed transactions globally. In fact, financial investors accounted for 30% of all acquirers of data service businesses in the life science sector in the first 6 months of 2019, the highest level to date.

The trends covered in this report are the ones we believe will drive M&A in the outsourced services sector: database creation, analytics and smart trials. The businesses that enable access to data and facilitate data sharing, will derive meaningful insights and help accelerate drug and medical device development.

We hope you find this report engaging. If you have any feedback or thoughts on the insights we have covered, please do not hesitate to contact us.

Stavros Gregoriou
Partner
Transaction Services

+44 20 7007 7681
sgregoriou@deloitte.co.uk

Amar Shah
Director
Corporate Finance Advisory

+44 20 7303 7820
amarxshah@deloitte.co.uk

Introduction

A significant shift is gathering momentum in the Life Sciences and Healthcare industry. Return on investment from late-stage pipelines in Big Pharma is at an all-time low[1]. The pressure to increase returns is driving a sharpened focus on reducing time to market. Faster drug development is being enabled through advances in data capture and analytics. Increasingly we are observing a growing number of alliances and acquisitions in this space, as evidenced by more than 300+ disclosed deals[2] completed globally since 2015 relating to data in the Life Sciences and Healthcare industry.

Our analysis shows many outsourced pharma services firms, which in the last decade have become crucial to drug developers, are reshaping into data businesses through acquisitions to harness access to meaningful real-world evidence (RWE) and analytics capabilities.

These deals have two principal aims: helping drug and medical device developers improve returns from development projects, which are becoming costly in an era of more personalised medicine, and demonstrating the value of drugs in real clinical settings.

As drug and medical device developers harness data-centric ways of working, the industry requires richer, more diverse sources of high quality data and information. Sources can be both structured and unstructured, including patient surveys and forum discussions, trials, health records, insurance claims and lifestyle information from wearable technology. These data are used to generate comprehensive and robust data analytics that, in turn, can be used to drive actionable insights on research and development, as well as improve regulatory compliance. Regulators recognise the need for change, and in the US and Europe they are mandating the inclusion of RWE in drug approval processes.

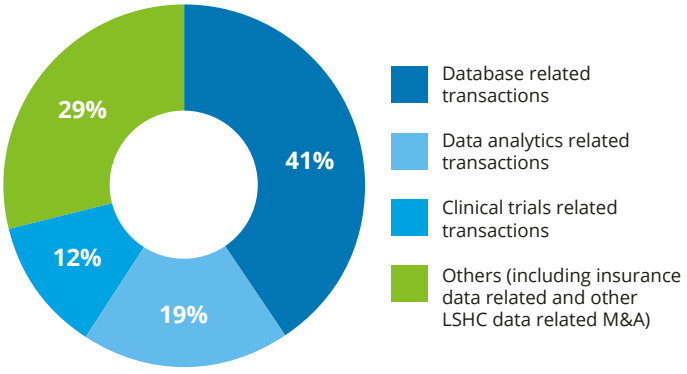
For drug and medical device developers to deliver these substantial changes a reality ahead of their competitors, they will look to their outsourced service providers that are quickly becoming data-led businesses. Outsourced services firms' acquisitions of information and analytics businesses are disruptive, and can be worth hundreds of millions of dollars. Indeed, in the last four years, some 52 deals have been related to analytics, closely followed by 33 in registries, databases and population management[3].

Meanwhile, some large pharmaceutical organisations will continue pursuing their own direct acquisitions and partnerships – as seen by Roche's 2018 $1.9 billion purchase of the analytics business Flatiron[4], Sanofi's recent deal to combine information with Google's analytics capabilities[5], and the agreement between GSK, AstraZeneca, Johnson & Johnson and seven counterparts to interpret discovery data on a blockchain[6].

The future for the drug and medical device sectors is one in which companies compete through high quality information and meaningful analysis. Those able to identify opportunities and move quickly will be best placed to meet the pressing regulatory and return-on-investment demands.

In this paper we examine three key disruptive data trends that are major drivers of M&A in the Life Sciences and Healthcare (LSHC) sector by deal volume: database creation, analytics, and smart trials. In order to understand the changes, we look at several examples of businesses moving strategically to master these trends.

Figure 1. Data related transactions broken down by activity



Capturing data is the prime focus for LSHC as well as broader tech players

Source: CapitalIQ, Pitch book, MergerMarket and Deloitte Analysis

Augmentation of databases and registries

High quality databases are essential to drug development, safety, compliance and commercialisation. All Life Sciences and Healthcare companies are looking into how to organise their existing data more effectively, typically via large standardisation projects, or acquisition of information sets. It is imperative that they decide and move assertively to avoid being left behind by competitors or challenged by regulations.

The best data sets provide homogenous information, from somewhat structured patient records, surveys and wearable data, as well as from more unstructured information such as patient discussions in person and on online health forums or social media.

Better networks will also need to be developed so that this deep and varied data is collected effectively within different departments of pharma companies, and externally in collaboration with regulators, hospital doctors, academics, patient support groups and the broader business world. Clear patient consent models will be essential in enabling individuals to share their data anonymously in the interest of better treatment outcomes.

A clear challenge is the reliance on electronic medical record (EMR) data, which can include missing elements of information. One company that tackles this is US-based Corrona LLC.[7], Corrona LLC maintains and operates comprehensive, proprietary patient registries collecting data from clinical sites across the U.S., Canada, and Japan. All of Corrona LLC's registries collect disease-specific clinician-reported and patient-reported outcomes, yielding a comprehensive longitudinal dataset that stands apart from other siloed datasets derived from electronic medical records or claims.

Another firm attracting attention is the US based medical image exchange LifeImage[8], which connects over seven billion image files from 58,000 clinics. The network links previously siloed images and information including scans and patient notes, anonymising it in the process, and enabling better patient outcomes.

Companies that can meaningfully combine unstructured and structured data to show how health, disease and recovery trends progress over time will be the sought after targets for M&A. We are seeing cross border acquisitions from the US into the UK and Europe, because the centralised healthcare systems in many European nations offer more standardised formats than the competitive system in the US with its many protagonists.

Implementation of data analytics

The long term value of information lies in deriving insight that can improve efficiency and patient outcomes. There is likely to be continued extensive M&A activity around analytics, unlocking insights that enable Big Pharma to accelerate development and commercialisation.

We expect pharma services' acquisitions to have a clear focus on the human side of analytics. Demand for expert data scientists is heightening, and there will be substantial competition for those with the necessary technological and industry-based knowhow. Experts will be tasked with writing advanced algorithms that address complex issues such as disease causes and progression, and improve therapy effectiveness through smart targeting of drugs to different patient cohorts, such as those with additional illnesses or particular biological markers.

A vital challenge being addressed by analytics is how to meaningfully interpret data when it is so wide ranging – from hospital records to social chatter, and lifestyle information logged by smart watches and fitness apps. The most successful firms will be those able to take this information, organise it into meaningful and coherent formats, and identify trends with the aid of tools such as machine learning.

We expect acquisitions around predictive analytics, though the industry is acutely aware that this area is in its infancy and remains as yet unproven. Companies with forward-looking code will aim to support drug trial design and improve development by using artificial intelligence to predict the effects of different medications in multiple situations. They may also tap artificial intelligence to help fill in the gaps between existing data sources.

Analytics firms already making serious headway include Health iQ[9], which was acquired by Corrona LLC in 2019 (see our case study on page five) with a view to creating a combined scale to deliver international RWE growth. UK-based Health iQ provides insightful dashboards and smart reports on the impact of drugs in hospital settings and on different patients, as well as simulating how different medication decisions would impact clinical responses and the resources needed.

PPD[10] made an early foray into this space via the acquisition of Evidera, which has bases in the US and Europe, giving the buyer a heightened ability to demonstrate drug value and effectiveness through analysis of information in multiple formats including claims, medical records and registry data, as well as social media platforms.

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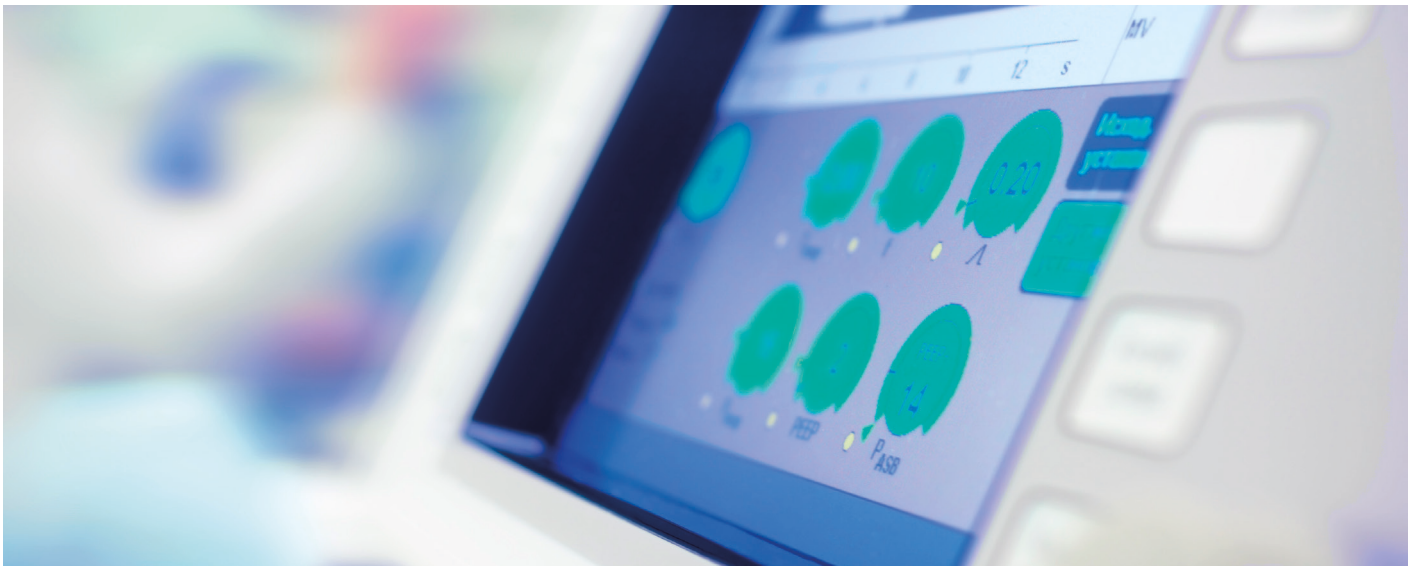


Case study
Corrona LLC acquires Health iQ

In early 2019, US-based Corrona LLC, which offers highly advanced information on autoimmune conditions, acquired British analytics firm Health iQ to expand its presence geographically along with its capacities in analytics and RWE, while also broadening its customer base.

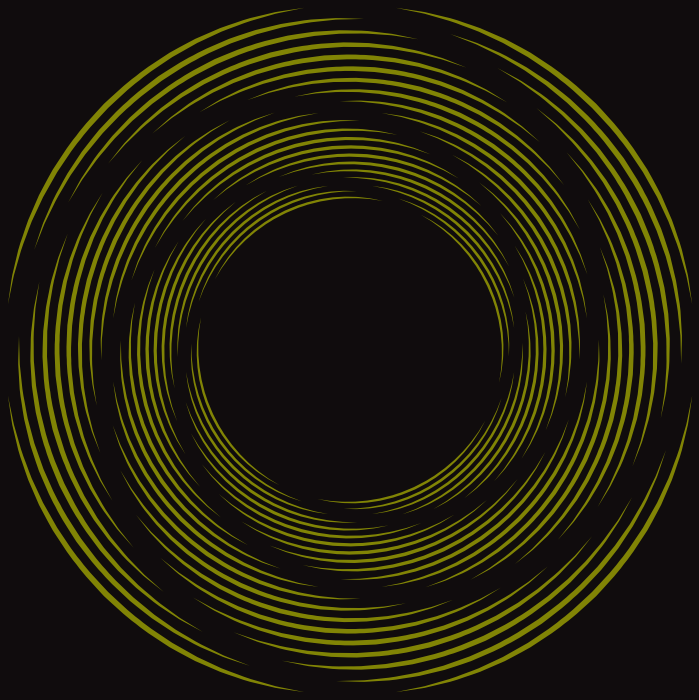
Following a highly competitive process, Corrona LLC secured a deal to purchase Health iQ, closing in the first half of 2019. The acquirer's chief executive, Raymond Hill, says the similarity of the two firms' styles of business was essential to the move: "The compatibility of the cultures and values has been hugely important and will be the foundation for long-term strategic success."

Corrona LLC sees a strong potential for leveraging the high quality datasets and medical records in Europe. "It is robust and complete clinical data," Mr. Hill states, "and we are working to combine that with our deep safety expertise to build offerings tailored to address pharmacovigilance opportunities in Europe. We're really hoping that Health iQ can serve as a base for other European expansion opportunities. We're looking holistically at every single dataset that is available and to see if we can add that on to Health iQ through licensing or acquisition."

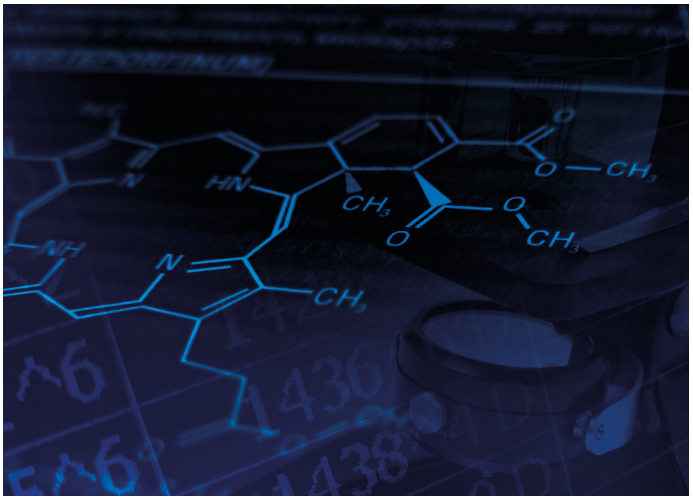
The deal for Health iQ has already expanded Corrona LLC's capacities into further disease areas such as cancer. An area of particular interest for Corona LLC is the datasets that Health iQ can access which Mr Hill describes as a 'unique resource' that contains information on every single cancer patient. 'It's robust and complete data', he says, 'so we're seeing if we could use that combined with our knowhow on the safety side to expand our offering for European drug makers'.

For Health iQ, the deal means growth in the US and the financial firepower potentially to grow by acquisition. Jilani Gulam, the British firm's chief executive, notes: "We immediately saw that the team at Corrona LLC is ambitious and they want us to grow, and they don't want us to be simply a detail within a large company."

Deloitte advised Health iQ through the entire acquisition process. "We found it was important not to rush the sale," says Mr Gulam. "We also learned the high importance of maintaining a focus on daily business, even when negotiating the sale of our company. Keeping this focus throughout means the core functions remained ready at the forefront right after closing."



Impact of data on clinical trials



Advancements in data science are significantly shortening timeframes for clinical trials, enabling faster drug approvals and improving chances of success. This represents a crucial step given that as soon as a patent is established the clock is ticking for businesses to finish development, complete regulatory approvals, and move on to manufacturing and commercialisation.

In addition to M&A centred around harnessing RWE to ensure trials are more effective, there will also be a focus on process automation, enabling repetitive and costly steps to be conducted quickly. Clinical trials depend upon finding the right patients and retaining them. The specialist firms marketing themselves as dramatically improving this process, by using rich and complete data, will be attractive acquisition targets.

Among the businesses innovating extensively is UK-based IGNITE DATA[12], whose core activity is accessing Electronic Health Records (EHR) and matching the right patients to specific studies, with anonymised information.

During trials, information from health records is typically entered into electronic data capture (EDC) systems, manual work that is often laborious and has to be checked for errors. IGNITE DATA is exploring how to solve this problem by plumbing data from digital health records directly into EDC systems, improving accuracy and speeding trial processes. This improves the return on investment for drug and medical device developers, whilst care locations that implement these practices can increase income by marketing themselves as highly efficient places to conduct trials. IGNITE DATA is leading part of a UK government (Innovate UK) part-funded project exploring the potential of the technology to ultimately improve treatment availability.

In addition, patient information can be used as a synthetic 'control arm' of tests, enabling a vision of what happens on treatment without the need to place subjects on placebo drugs. We expect the companies that unlock and interpret this data successfully will be directly in the sights of pharma services firms. US-based TriNetX[13] is one firm operating at the cutting edge in this area. It has amassed clinical data from numerous jurisdictions, making it traceable to healthcare providers that can identify individuals. This allows virtual patient cohorts to be developed and repeated in real trial settings.

There is also great interest in virtual clinical trials, which will harness data from patient wearables and apps to examine the results of test treatments without the need for direct clinical contact. Firms such as Science 37 enable this[14] while also providing an app that reminds patients to adhere to the strict medication demands of studies.

Whilst the industry's ambition is for more clinical trials to be fully virtual, realistically, the pathway towards this involves digitising more aspects of how clinical trials are conducted today. Deloitte views the application of data as essential to improving the speed and effectiveness of clinical trials. As a result, Deloitte has invested in creating its own cutting-edge software, called Deloitte ConvergeHealth[15], to help pharma businesses succeed. Within the portfolio of applications is Miner™, which enables a transformation towards personalised medicine thanks to advanced cloud-based analytics. Meanwhile, Patient Connect™ harnesses connected apps and multichannel touchpoints to provide meaningful patient feedback loops, and Safety™ is a smart evidence-based platform for drug safety intelligence.

Clinical trials depend on finding the right patients and retaining them. The specialist firms marketing themselves as dramatically improving this process, by using good data, will shape up as major acquisition targets.

Deloitte views the application of data as essential to improving the speed and effectiveness of clinical trials. As a result, the company has invested in creating its own cutting-edge software, called Deloitte ConvergeHealth[14], to help pharma businesses succeed.

Conclusion

Pharmaceutical and medical device businesses are under pressure to improve the financial returns on their drug development, particularly in a world of increasingly personalised medicine. They must also answer to stringent regulatory demands around trials and commercialisation. Equally importantly, they should prepare for a more data-led healthcare system that challenges them on drug performance.

As a result, many are turning to service providers for efficient and affordable access to high quality data, new analytical approaches that harness meaningful real-world evidence, and improved trial processes ranging from automated data capture to virtual patient cohorts. The outsourced services businesses that support the Life Sciences industry in meeting these core demands will be highly active in acquiring data-driven firms in the coming years.

In executing acquisitions in this space, regardless of whether the acquirer is trade or private equity, there are a few additional points to consider:

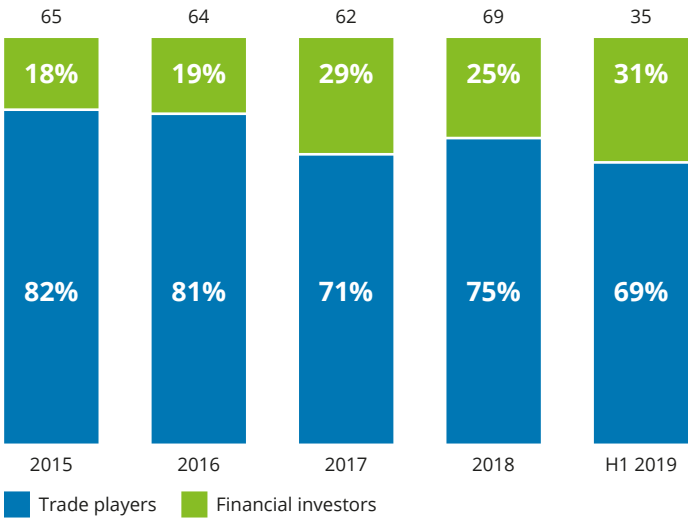
- the target's access/rights to their data and understanding what right of use the company has including GDPR compliance;
- any challenge the target may face in scaling their presence given the need to integrate new data sets to grow;
- the difficulties in recruiting data scientists with sufficient knowledge of the sector; and
- the complexities in expanding internationally.

Finally, acquirers should consider tailoring their due diligence on the key value drivers of the target. Financial due diligence may require validation of revenue visibility for the year(s) ahead, especially for those targets with recurring/subscription based revenue models. Those targets with IT or technology at their core will require due diligence around the cyber security of data, management/control, analytics and storage of large volumes of data.

The ability to obtain the right data and interpret it for actionable insights will separate the compliant, profitable product development from the costly and ineffective ventures of the future. It will unlock trials that are faster, safer and highly effective. Pharma and medical device firms and their outsourced services partners will pursue ever more targeted M&A around insights. Those outsourced service providers willing to take the leap into becoming truly data-driven businesses will be those that will win in the sector of the future.

Our view is that the outlook for M&A in this area remains strong, particularly in the deal corridors between the US and Europe. We believe that whilst the large strategic players and growing e-clinical service companies will drive consolidation in this sector, private equity funds, which are looking for smart ways to invest their record levels of dry powder, will also take a prevalent role. Many already have teams focused on the pharma industry. The continued availability and affordability of acquisition finance will also support deal activity.

Figure 2. Growth of private equity investment in data services



Source: CapitalIQ, Pitch book, MergerMarket and Deloitte Analysis

Endnotes

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Key contacts

Stavros Gregoriou
Partner
Transaction Services
+44 20 7007 7681
sgregoriou@deloitte.co.uk

Amar Shah
Director
Corporate Finance Advisory
+44 20 7303 7820
amarxshah@deloitte.co.uk

Sebastian Burnett
Director
ConvergeHealth
+44 20 7007 3946
sburnett@deloitte.co.uk

Shonal Tankaria
Director
IT Diligence
+44 20 7303 2837
stankaria@deloitte.co.uk

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