A new era of collaboration between the NHS and the Life Sciences industry

Embarking on a new era of collaboration between the NHS and the Life Sciences industry

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Executive Summary

Over the past nine months, the UK has experienced the initial disruption of the first wave of COVID-19, the subsequent emergence from lockdown, only to be followed by a second wave that is now challenging countries in the northern hemisphere and in Latin America. With stringent lockdown measures remaining in place, infection levels are beginning to drop again, and in the UK, there is light at the end of the tunnel with the ambition to deliver a vaccine to the most vulnerable groups in the population by Easter. The entire healthcare sector has experienced a whirlwind of challenges this year, but now that we are close to a tangible exit strategy from COVID-19, what will the priorities of the NHS and of the life sciences industry be looking forward?

To answer this question, we held 38 interviews with Chief Executives and senior leaders in the NHS and 19 with General Managers and leaders in the life sciences industry. This article reflects their perspectives on **the key priorities for the future**, taking into account the significant changes brought on by the COVID-19 pandemic. Our findings have revealed that the shared experience of COVID-19, and the unprecedented and extraordinary collaboration and innovation that resulted from that, have revealed a myriad of common interests between the life sciences industry and the NHS, together with some major **opportunities for deeper and more productive collaboration**.

The NHS Long Term Plan remains a priority with a drive to **strengthen the workforce** and **create Integrated Care Systems (ICSs)**. Some additional priorities emerged from our discussions with NHS leaders, and in light of COVID-19, such as a focus on **recovering performance** in access to services and reducing waiting lists, especially in cancer, enabled by **strengthening provider collaboratives**.

The life science industry's agenda includes **repositioning its relationships with the government and the NHS**, to tackle key disease areas together and spread innovation. The industry's concerns about the way the NHS **assesses value and manages access** remain and although the consultation on changes to NICE's methods holds open the prospect for some of the changes that the industry has been hoping for, it will not address all of them. The life sciences industry needs to find **new operating models** that embrace the shift in healthcare delivery stimulated by COVID-19 and find the right approach for a new business model in the UK.

The response to COVID-19 has created a shared ambition for the NHS and the life sciences industry and has **inspired closer partnerships and a greater degree of trust**, exemplified by the race to finding a successful vaccine. There are opportunities to use this increased trust to improve collaboration and to promote the spread of innovation. However, there is a risk that once the imperative of tackling COVID has passed, working relationships will resume old patterns. The challenge going forward is to capture and retain these recent changes as much as possible.

The vaccine is an obvious priority at the moment, as it allows for the escape from lockdown. However, beyond that, and assuming there is successful delivery of the vaccine to the population, what other opportunities are there for the NHS and the life sciences industry to work together?

Taking the priorities above and the impact of COVID into account, our report explores the opportunities for the life sciences industry to work with the NHS for mutual gain. In particular, we see significant prospects for collaboration on **leading pathway innovation**, **addressing health inequalities**, **restarting clinical trials**, and **sharing data and analytics**. These new ways of engaging will need to be informed by a new **collaborative model**, and will require the industry and the NHS to adjust their **appetite for risk**.

To take this forward, life science companies need to consider which of the identified opportunities appeal to them most and that they are best suited to support. Doing so requires considering how the burden of disease in the UK maps across their portfolio, reflecting on their current relationship with the NHS and identifying which of its priorities they are interested in. From this, companies will be able to set their own priorities and pathways towards a new business relationship with their main commercial partners in the UK.

NHS priorities

The NHS has set out clear priorities in its Long-Term plan and through further guidance from NHS England. Our discussions with Chief Executives have reflected these priorities, with a key focus on the themes detailed below, imbued with our own understanding of the current pressing issues for the NHS.

Address the waiting list

Many elective procedures and cancer services were put on hold to increase capacity for COVID patients and reduce risk of infection. Activity has dropped from 20% to 60% across primary care, community-based care, outpatient and inpatient services.[1] In particular, this has meant a 30% to 100% drop in presentation, diagnosis and treatment of cancer patients, which can ultimately lead to worse outcomes and excess deaths *(read more about it here).* The NHS has therefore prioritised the recovery of this missed activity in cancer where patients urgently need treatment and have not received it. Recovering the elective backlog can only be achieved by encouraging patients to present, strengthening diagnostics, segmenting pathways into elective and non-elective streams, and having COVID-secure pathways with sufficient testing and appropriate infection prevention control measures.

Strengthen provider collaboratives

Provider collaboratives have emerged as one of the most important innovations to support this recovery. These collaboratives involve establishing new delivery models with shared patient lists to manage clearing the backlog and putting in place new operational procedures of how these shared lists work. Additionally, staff passporting allows for shared work across sites and providers, and supporting data flows is an essential requirement to allow access to patient records across multiple sites. The NHS needs to harness all the available capacity to help it with this recovery process, including the private sector and hospices.

Support the workforce

NHS staff have been through a difficult period, and supporting the workforce is now more important than ever before. There is widespread recognition that the workforce is exhausted, and healthcare leaders are concerned about ensuring that their staff feel protected from COVID infection when coming in to work, and that their wellbeing is recognised and supported. In the face of the need to recover the backlog, it is recognised that the rate limiting factor is the workforce. There is also concern for Black, Asian and Minority Ethnic (BAME) staff, who have been disproportionally impacted by COVID. Additionally, there needs to be sufficient capacity to meet growing demand, as well as to focus on stretching, developing, training and empowering staff.

Consider financial constraints

Before the pandemic, there were existing financial constraints in the NHS. The entire financial regime was paused due to COVID, but this only paused the problem. As the UK begins its exit from the pandemic, the financial context will likely emerge again as a major hurdle. These enduring fiscal challenges have only been exacerbated by the need to address the backlog of missed activity, and there is thus a big question around the decisions that will be made to address them, and what that will mean for budget holding.

Develop Integrated Care Systems (ICSs)

The Long-Term Plan sets out a goal for all of England to be covered by an ICS by 2021. ICSs will take the lead in planning and commissioning for their region to deliver more joint care pathways, oversee the command and control structure, and develop whole system planning and improved data flow. ICSs have always been regarded by the NHS as a sticking plaster over the commissioning fragmentation caused by the Health and Social Care act of 2012. Their fundamental weakness is lack of clarity of authority and decision making given that they are collaboratives without any force. Legislation is now proposed to address this gap and to enable the integration of CCGs into ICSs, reduce fragmentation, and thus potentially reunify commissioning in ICSs. This would mean that NHS England would become a regulator rather than a commissioner, therefore recombining the different budget allocations together.

Life sciences industry priorities

The views of senior executives in the life sciences industry on their priorities as they emerge from the pandemic can be grouped in the following five themes.

Reposition relationships with the government and the NHS

Historically, pharmaceutical companies have been perceived as having less admirable motives than academics, scientists, clinicians and the NHS, whose ambitions are seen as more altruistic. However, the COVID-19 pandemic has helped to reframe this never very accurate view, creating the opportunity to reposition the industry and the NHS as working on the same side to combat disease. Introducing a "superordinate" goal has allowed the industry to be seen as innovative, collaborative and essential to protecting health and improving outcomes. This success story provides a precedent for joint work, offering the opportunity to reshape the industry's relationships with the government and the NHS. It could pave the way for a greater focus on how the industry and the NHS can work together to tackle infectious disease as well as cancer, cardiovascular disease and dementia, among other illnesses, engineering innovations into care pathways, applying better use of data, exploring the opportunities in diagnostics and prevention, and spreading innovation.

Recognise value and drive faster access

The way the NHS assesses value and manages access remains a major concern for the life sciences industry. The UK has some of the lowest prices in the OECD, because of the approach it takes to managing the entry of new health technologies into the NHS, including NICE's technology appraisals, NHS England's budget impact test and the Voluntary Scheme for Branded Medicines Pricing and Access (VPAS). Uptake can also be slow compared to other European countries. The 2019 VPAS sets a spending cap on the industry by restricting the growth of the branded medicines bill to 2%, which was meant to go hand in glove with supporting more rapid uptake of innovation:

"This scheme strikes a balance between supporting innovation in the pharmaceutical industry, helping to get the most cost-effective medicines to patients as quickly as possible, and ensuring complete predictability on spend for the entire branded medicines bill for the NHS" - ABPI[2]

There is a widespread feeling in the industry that this has not been followed through. A more recent concern is the practice of tendering for branded medicines. The UK therefore remains a tough market for the life sciences industry that argues for a determined effort by industry and the NHS to ensure that innovation reaches patients and that a fair commercial environment exists.

Brexit

Although COVID has pushed Brexit to one side to a certain extent, as the end of the transition period approaches – with or without a deal – the uncertainties around what is going to happen are still a source of concern. There is an opportunity to create a nimbler regulatory process, fully integrated with the NICE appraisal process. The opportunity that the UK has for being a first to market country has been demonstrated by its approval of the Pfizer-BioNtech vaccine. Nevertheless, concerns remain, about the regulation of the flow of goods in and out of the UK, for example the need to address different data requirements in the UK and the European Union, in some cases. Having to get MHRA (Medicines and Healthcare products Regulatory Agency) approval on top of EMA and FDA approval will add additional time and cost unless the UK regulatory processes are optimised to avoid it.

NICE methods review

The NICE methods review, currently out to consultation, aims to optimise and update its evaluation methods and support the ambition of the NHS to provide high quality care. Through this, NICE will review the way it values the benefits of health technologies, the approach it takes to understanding and improving the evidence base it uses, and the way it will appraise challenging technologies, conditions and evaluations. While this review will address some of the life sciences industry's concerns, it will not deal with all of them. The methods review makes some proposals that could make it easier for companies to build the value proposition for high cost, and curative and multi-indication medicines. In

practice, the review is a zero-sum game: any changes that have the potential to increase drug expenditure above the VPAS projections will need to be balanced by other changes that have an equal effect in the opposite directions. The important thing will be for NICE to agree with its partners on change that helps to ensure that the full value – and the full costs – of new technologies are identified. The proposal to drop the current end of life modifier in favour of one that addresses severity is example of how it might do this.

Beyond the methods review, the continuing evolution of the relationship between the NICE appraisal process and NHS England's commercial team will impact on the way companies manage the entry of their products into the NHS. Here, early engagement by companies with both organisations will pay dividends by revealing the extent and nature of the evidential and fiscal challenges the NHS (and NICE) perceive there to be with their new products.

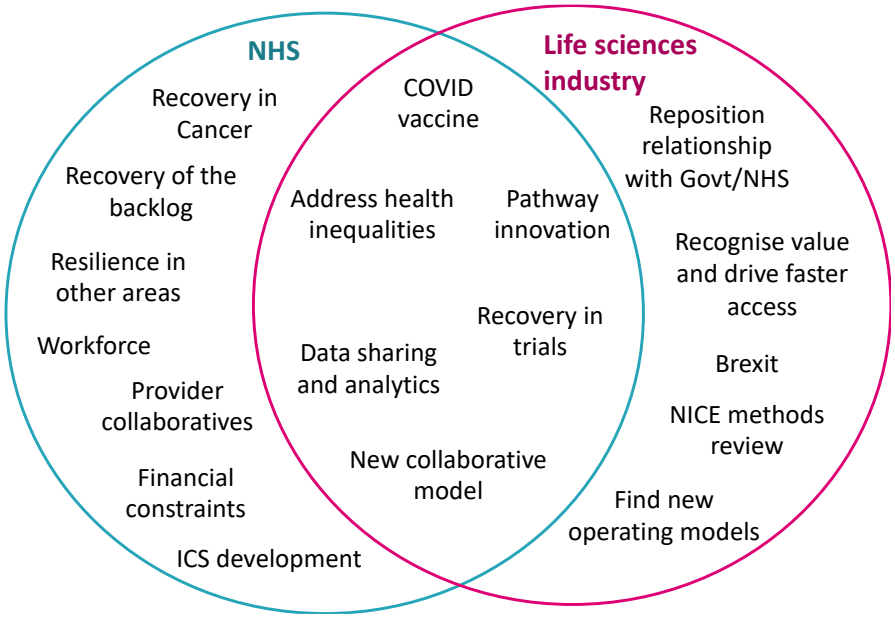
Find new operating models

The pandemic has offered a unique opportunity to test new commercial models. Sales force detailing has shifted almost solely to virtual channels and given how busy clinicians have been, significantly reduced in volume. These changes have given way to an opportunity for life sciences companies to shift these resources to increase implementation support and reduce commercial headcounts in the industry. The industry needs to embrace the changes to healthcare professional engagement brought on by COVID-19, and find the right balance for a future commercial organisation in the UK. This poses a number of questions for the future around sales force sizing, the mix and intensity of digital channels, the balance between commercial and medical functions, and the partnership capabilities required.

Opportunities for closer partnerships

The race for the COVID-19 vaccine is an amazing success story of innovation, demonstrating how rapid progress can be achieved through collaboration, compressed timelines, a new risk appetite , regulatory fast-tracking and innovative commercial arrangements *(read more about it here)*. For companies that are producing the vaccine, this will remain their primary focus. As for the delivery of the vaccine, all eyes will be on the NHS. While the NHS undoubtedly has experience in delivering the 'flu vaccine, the COVID-19 vaccine will be a far greater undertaking, given the need to cover the whole population, including complex cohorts (such as staff, patients, residents and the public), and a limited supply with potentially significant logistical constraints. All of this will need to take place alongside the delivery of core services and COVID services. One potential area of joint focus for the NHS and the life sciences industry will be how to best tackle the anti-vaccination campaign by communicating the science, fighting the myths, and creating incentives for adoption.

More broadly, how can the industry and the NHS take advantage of the collaboration and innovation witnessed throughout the pandemic, and apply it to other areas? Drawing on the priorities of the NHS and the life sciences industry, we have identified four areas, apart from the vaccine, which are relevant to every pathway, every therapeutic area and every geography for both the life sciences industry and the NHS. Achieving this will also require new ways of working and a new model for collaboration.



Pathway innovation

COVID has provided the opportunity to make real changes in the patient pathway and accelerate contactless care. As a result, the NHS has seen a period of accelerated transformation. The life sciences industry is in a position to play a leading role in pathway innovation, with a focus to: 1) maintain the adoption of virtual interactions and address any concerns around that (e.g., the use of multi-disciplinary teams when not appropriate), to support keeping people at home unless they absolutely need to present to hospitals or primary care facilities; 2) adopt real digital interventions such as remote monitoring (e.g., for elderly in care homes) and asynchronous virtual clinics; 3) flip the pathway to put diagnostics before consult, which will ensure that patients are getting a correct and timely diagnosis so they can be put on the right pathway and avoid wasting time, money and resources on wrong treatments, as well as improve health outcomes overall; 4) find ways to reduce healthcare professional contact or skill shift; 5) shift to community-based delivery; and 6) use novel therapies that offer greater protection to patients.

Health inequalities

Significant health inequalities persist and have been revealed again during the pandemic as the BAME population has been shown to be disproportionally impacted by COVID. There is therefore an opportunity for the life sciences industry to work with healthcare systems to develop and roll out technologies and initiatives to raise awareness and reduce these and other inequalities. This should involve incorporating the BAME population in all analyses, measuring health inequalities in every pathway, and considering how to address these inequalities across the pathway. Accomplishing this will require a deep-dive into the causes of inequality in prevalence, presentation and care. Addressing these issues will need to be achieved by designing culturally appropriate interventions, and in partnership with local communities. Social determinants of health need to be tackled with anchor institutions especially the NHS, which will need to be held accountable to practice what they preach, from leadership, pay, recruitment, to community engagement.

In addition to this, the life sciences industry can support the inequalities agenda by diversifying clinical trials. The ABPI calls for issues around diversity and inclusion to be tackled in research through collaboration between government, funders, public and the research community[3]. By being thoughtful about recruiting a more diverse range of people into clinical trials, the opportunity for fast access to medicines to different cohorts of people is increased. As a result of this, drugs can be developed with the patient in mind, and more data can be collected on adverse events that may be specific to a particular ethnic group.

Clinical trial recovery

During COVID, many clinical trials were either paused or fell behind on their start date which has disrupted the drug development and testing cycle of life science companies, possibly causing delays in drugs reaching the market. It is therefore a priority to rapidly restart clinical trials and to put steps in place to make them more resilient to future health system shocks. This has been overlooked by the NHS, as the UK is reportedly performing worse than other countries in the goal to restart trials that were paused due to the first COVID wave, with just 45% of trials in the UK open to recruiting[4] as of early September. This in part has been due to the difficulty of finding capacity for clinical trials when there is a growing elective backlog to contend with. There is an urgent need to rapidly and efficiently restart trial sites, by allowing to drive up enrolment and adoption, speed-up delivery of data capture, and measure key metrics such as enrolment, time to trial, cost and completion.

Data sharing and analytics

Greater access to data provides a huge opportunity for the life sciences industry and the NHS as it could help to identify cohorts of patients to target for trials as well as the target market for a particular intervention and therefore better identify its value to society. Being able to accelerate the trial recruitment process through access to patient data may save time and money, enabling patients to receive potentially lifesaving treatment earlier. Additionally, accelerating data feeds onto digital platforms can help to inform decision making and enable better direct care.

This can be accomplished by: 1) creating feedback loops based on routinely collected data; 2) sharing more aggregate data, in the absence of information governance, in every pathway and geography, to help understand recovery, innovation and inequalities. NHS England has done this in primary care and the Electronic Referral System, while the life sciences industry is still sitting on international comparison data; 3) embracing robust information governance combined with patient and public involvement and engagement in order to maximise the legitimate use of data in specific pathways and geographic areas to display evidence; 4) pursuing federated data analysis, such as with OpenSafely, an analytics platform set up to identify factors associated with COVID-19-related hospital deaths; and 5) maximising the breakthrough in cloud computing as opposed to using a single device for joint work.

Developing a collaborative model

To ensure that the identified opportunities for deeper partnership successfully materialise, the NHS and life science companies need to develop a collaborative model which will define and inform their new ways of engaging, while allowing them to fully embrace innovation and collaboration. Through this model they will identify their priority therapeutic areas, consider specific interests and objectives around the pathway, identify the health inequalities they wish to address, identify clinical trials and data, and decide what needs support in the authorising environment. The focus needs to be on

developing proof of concept and ensuring that the potential for diffusion is hard wired from the beginning for scale up. Working on data should be a primary area of emphasis, either as a goal in-of-itself or for supporting other objectives. Additionally, the model needs to ensure that the news ways of engaging will continue to maximise the use of teams, and will adopt knowledge-based networking and sharing about implementation. It needs to be able to accept fast failure and overcome internal barriers to collaboration such as legal and compliance issues. There is potentially a role for the ABPI to play in determining a framework for collaboration between the industry and the NHS, one that, as defined by the code enforced by PMCPA, is evolving significantly towards simplification, and on the NHS' side, supporting education on how to collaborate with the industry.

Another crucial aspect for embracing innovation is an increased appetite for risk, which we have witnessed with COVID-19, especially with the development of a vaccine. Indeed, there seems to have been a paradigm shift in how health systems and life sciences companies are making decisions, with less risk-aversion and a tendency to do more with lower levels of assurance on success. Going forward, this is will be essential to maintain, in order to fuel greater innovation and collaboration.

Next steps

There have been many efforts to stimulate better collaboration between the NHS and life science companies in the past, which have had mixed results. This means that making bold moves has now become more difficult. However, the unprecedented innovation and cooperation in the development of the COVID vaccine and the positive change across the board in regulatory, commercial and manufacturing have shown what can be achieved through collaboration and a shared ambition and have made the ground more fertile for deeper partnership between the NHS and the life sciences industry.

The NHS currently finds itself in an unusual environment for forming partnerships, as it struggles to balance its resources between providing COVID services, recovering the backlog, resuming elective services, and now delivering the vaccine. Although it has received a £3 billion funding boost, this money seems to have been heavily pre-allocated. However, against a backdrop of greater goodwill towards the life sciences industry, the NHS is in a position to explore opportunities for partnering that might not otherwise have arisen. In turn, life science companies have the opportunity to consider which of the opportunities set out in this paper they want to take advantage of, based on their ambitions and priorities.

To help them make those choices, we propose that companies take the following next steps:

1. Analyse the burden of disease in the UK and how it maps across their portfolio
2. Define the characteristics of the relationship they want to create with the NHS
3. Identify the markets that they wish to develop. For each, what are the company's key strengths and how much of a priority do they represent for the NHS?
4. Based on the answers to these questions, identify where and how the company can enhance the current care pathway, the initiatives it can take to do this and what it needs to do to get proof of concept and scale up
5. Define what success will look like

These tangible steps will allow life science companies to identify more concretely a set of mutually beneficial opportunities for partnership with the NHS, which have the potential to bring about real positive change for them, the NHS and, most importantly, patient outcomes.

Furthermore, the NHS has recently published a paper on the next steps to building strong and effective ICSs across England (*read more about it here*), which will be have implications for how the Life Sciences industry interacts with the NHS that must be worked through. It details the way the NHS and its partners from health care systems can accelerate collaborative ways of working in the future. This paper also discusses the changes that will take place on a financial level, whereby NHS finances will be organised at an ICS level, and allocative decisions will be given to local leaders. This means that budgets will be reunified into 'a single pot', including commissioning budgets, primary care budgets, the majority of the specialised commissioning spend, central support or sustainability funding, and nationally held transformation funding that is allocated to systems.

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