

# How COVID-19 Changed the Way We Recruit

## Amplifying the need for a new era of strategic patient recruitment and retention.

**T**he need for rapid and adaptive recruiting strategies has never been more urgent than in response to COVID-19. This pandemic is pushing those working to develop new treatments to pursue more agile and innovative strategies to accelerate recruiting for clinical trials while keeping patients and site staff safe.

IQVIA is leveraging expertise, data and adaptive methodologies to help speed results. In April we released the COVID-19 Trial Matching Tool. This comprehensive, sponsor-agnostic solution screens and matches individual patients with specific COVID-19 studies in the United States to accelerate clinical research projects and expedite efforts to prevent, treat, or cure the novel coronavirus.

The tool, which our team built on an accelerated timeline, was designed to be as patient-friendly as possible to make it easy for individuals to learn about relevant COVID-19 trials in their communities.

Users complete a simple pre-screen questionnaire, then the automated machine learning algorithms do the rest.

The matching logic is based on highly specific patient and trial characteristics that take into consideration location, study goals, patient demographics, treatment requirements, health status and other features to make the best matches. The logic engine is then revised and tested against the raw data to minimize errors.

If individuals meet eligibility criteria, the tool will link them to potential matches among the more than 100 trials underway to find a trial match right for them.

### A New Era of Recruiting

The Trial Matching Tool is more than just a novel solution in a global crisis. It is emblematic of the dramatic changes already occurring across the clinical research landscape and the growing emphasis on the need for direct-to-patient recruitment strategies.

The industry has been working to become more patient-friendly long before COVID-19. Sponsors and their partners engage with patient advocacy groups, gather patient feedback on trial designs, incorporate outcomes important to patients into protocols, and implement patient-friendly technologies and data collection tools. All of these efforts are designed to bring patients closer to the research process.

However, these solutions tend to be applied ad-hoc and often cannot be scaled beyond individual sites or adapted to the broader needs of the study design, patient population, treatment category or sponsor. In many cases, individual teams may gather market data or conduct real world studies to understand the patient journey, but unless that data is shared and incorporated across the clinical development strategy, it is difficult to create a truly end-to-end patient centric experience.

This patchwork data approach is surprisingly common among pharma companies. A recent Impact Report by the Tufts Center for the Study of Drug Development<sup>1</sup> found that more than two-thirds of sponsors are using or piloting at least four different data sources in clinical trials, and only about a quarter have formal data governance policies to manage data flow, compliance, and accessibility.

When sponsors adopt a single, enterprise data strategy, the impact of their patient engagement efforts can be amplified. These platforms provide a foundation for patient data analysis that can be adapted to meet the needs of each patient, whether that engagement happens through a site, a physician, or directly with the individual. It allows them to more rapidly find patients who could gain from trial participation, then exchange ideas about the potential benefits available to them — before recruiting begins. This uniform engagement approach can increase the size of recruitment pool, generate interest in the patient community, and provide insights that enhance study design.

But to do that, we must make better and more targeted use of existing data.



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When we leverage the full capabilities of Human Data Science, we can minimize friction for investigators, reduce site burdens and improve productivity. Human Data Science integrates the study of human science with breakthroughs in data science and technology to advance our understanding of human health, and help everyone make better, more insightful decisions.

### Global Data Makes Customization Easier

IQVIA uses Human Data Science to create tools that accelerate patient recruitment and eliminate obstacles that add time, cost and uncertainty to these efforts. We've found that the best approach combines IQVIA CORE data, analytics and advanced machine learning technologies.

This combination of technologies takes the guesswork out of the process. We use site-level data to create analytics-based enrollment forecasts. These solutions empower sites and CRAs to mobilize their referral networks so they find and connect with patients more directly. It also frees them to dedicate more

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time to addressing the physical and emotional barriers that can get in the way of their study participation. That includes using channels and messages that are most likely to deliver desired results.

This approach is at the heart of the holistic patient experience that is quickly becoming the preferred model for patient engagement.

The most important tool for creating this patient-centric recruiting environment is the data. Sponsors need access to real-world and clinical datasets from a variety of sources, along with advanced analytics tools that can mine insights from the datasets and translate the results into custom messaging for every trial and each patient.

Traditionally, these datasets can be difficult to access depending on the country of origin. They may also have varying degrees of reliability or consistency, which makes accurate analysis challenging.

At IQVIA, we have alleviated some of these burdens by curating one of the largest repositories of healthcare data in the world, which we can use to identify patients before sites are chosen or recruiting efforts commenced. These datasets help us identify and categorize patients based on demographic information, purchasing behavior, lab data, insurance data, genomics data, and other factors relevant to sponsors. These insights allow us to identify patients faster and even detect undiagnosed patients based on their behavior prior to an initial physician visit.

Once we've conducted these analyses, we can translate the results into maps that sponsors can use for site selection based on patient proximity, site capabilities and competing trials. We then help the sites mine their own data to understand exactly who is in their database and, before any contact is made, whether they are likely to meet eligibility criteria.

This process eliminates much of the noise in the big data environment and normalizes

the results to make it easier to find the right patients at the right time in the right way. Once patients are identified, we use modeling algorithms to craft hyper-targeted campaign strategies that raise awareness of the trial via multiple touchpoints, including phone, email, mail and digital engagement. This ensures we are connecting with patients based on their communication preferences.

When trials target small, dispersed patient populations, sponsors can't afford to lose a potential participant due to generic messaging or misguided engagement strategies. This data-driven patient-centric approach ensures every patient is treated as a valuable partner in the process, while making it easier for sites to meet their recruiting goals. By helping sites to mine their own data and supplementing it with our own, we can decipher the needs and burdens of the patient to provide a better treatment experience.

## Messages That Motivate

Connecting early with patients to offer information and education is critical to a successful strategic recruiting approach. It's an opportunity to inform them about clinical research and their own disease before they are in a position to choose a care option. Such data-driven patient-centric strategies are essential to reducing time, cost and risk in recruiting and will increasingly define recruiting in the coming years.

But finding patients is only the first step. We need to be more thoughtful in the way we communicate with patients before, during and after the trial.

Patients today are far more healthcare savvy than in the past, and they rightly expect to have greater control over their healthcare data and how it is used. They are fast becoming the primary decision-makers over which trials they participate in and under what criteria. They have also become more sophisticated in interpreting messages from healthcare stakeholders, and tuning out content that feels irrelevant, time-consuming or misguided.

If sponsors and sites want to capture their attention, they have to treat them as partners in the research process. That means designing trial experiences, protocols and messaging that specifically address their individual motivations. For some patients, the opportunity to participate in groundbreaking research will attract them to a trial; for others, it will be access to healthcare, involvement of their local physicians, advice from their personal network, or the convenience of participation. All of these issues must be considered as part

of the study design, then broadcast through targeted messaging to ensure patients know their preferences are being addressed.

In 2019, IQVIA conducted a patient community survey that shows that if patients are going to participate in clinical research, they want feedback, including access to their own trial data (89%), updates about upcoming trials (81%), study statistics (78%) and reminders and calendar tools (52%) to make participation easier. When this data transparency is lacking, patients are less likely to remain in a trial.

Sponsors will also benefit from being more proactive about identifying and dealing with obstacles that can lead to patient attrition. Machine learning tools and artificial intelligence can help uncover these trends and interpret results. For example, they can help detect which warning signals suggest a patient may not be committed to finishing a trial and which solutions might prevent that attrition in the "last mile" of a trial.

## Lessons from a Pandemic

The industry's rapid, collaborative and adaptive response to COVID-19 proves we have the agility to streamline recruiting and to make better use of data and technology to connect with patients.

The acceleration we are witnessing proves that IQVIA has the expertise and data necessary to find, recruit and retain the right patients at a faster pace.

COVID-19 has been wildly disruptive, but it also provides a pivotal opportunity to accelerate innovation in patient engagement to deliver more efficient recruiting results. When sponsors and sites use these existing tools and data, they can speed patient engagement while improving the trial experience for everyone involved. <sup>PV</sup>

***IQVIA is a leading global provider of advanced analytics, technology solutions, and contract research services to the life-sciences industry. IQVIA applies human data science — leveraging the analytic rigor and clarity of data science to the ever-expanding scope of human science — to enable companies to reimagine and develop new approaches to clinical development and commercialization, speed innovation, and accelerate improvements in healthcare outcomes.***

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