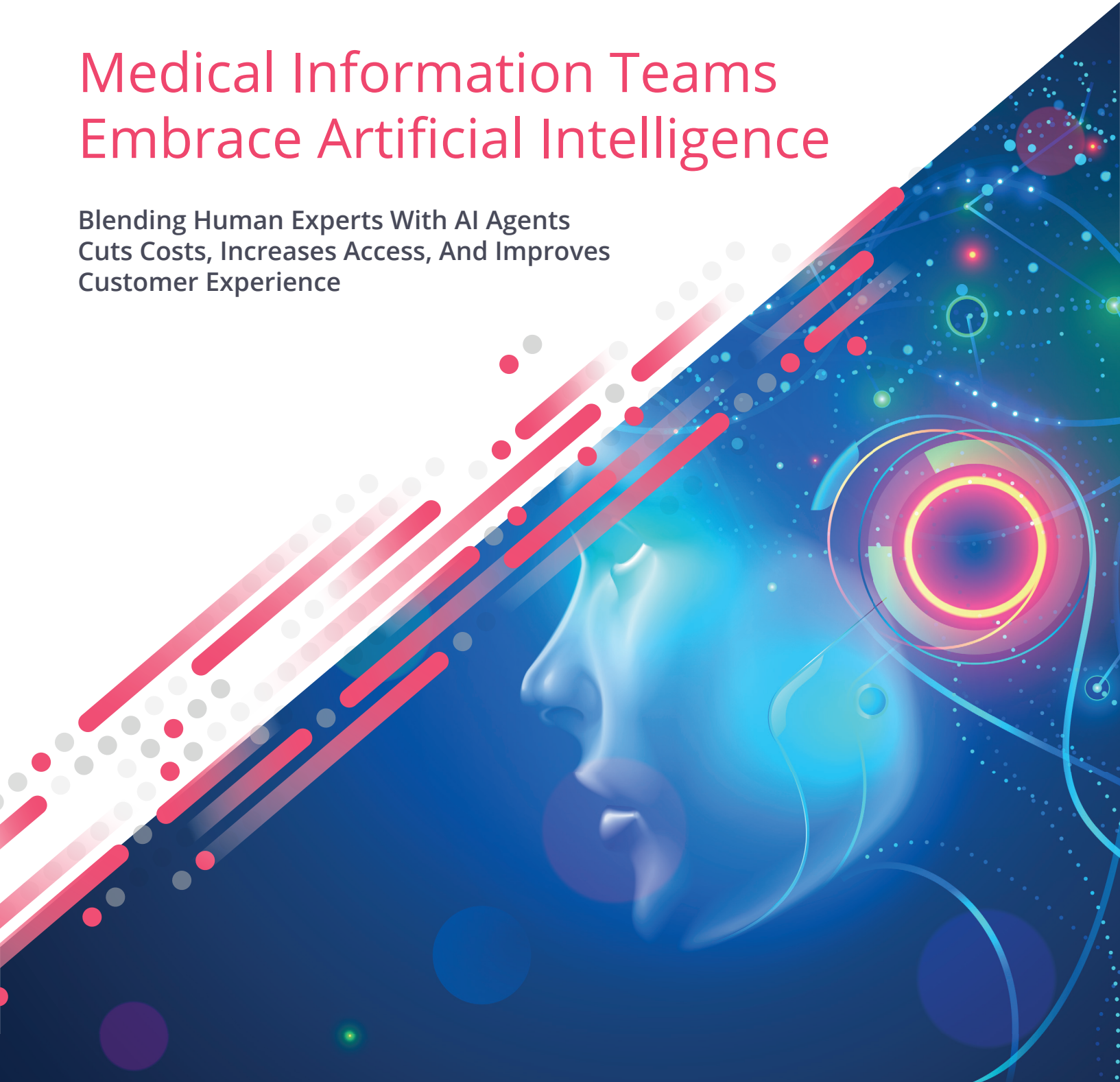
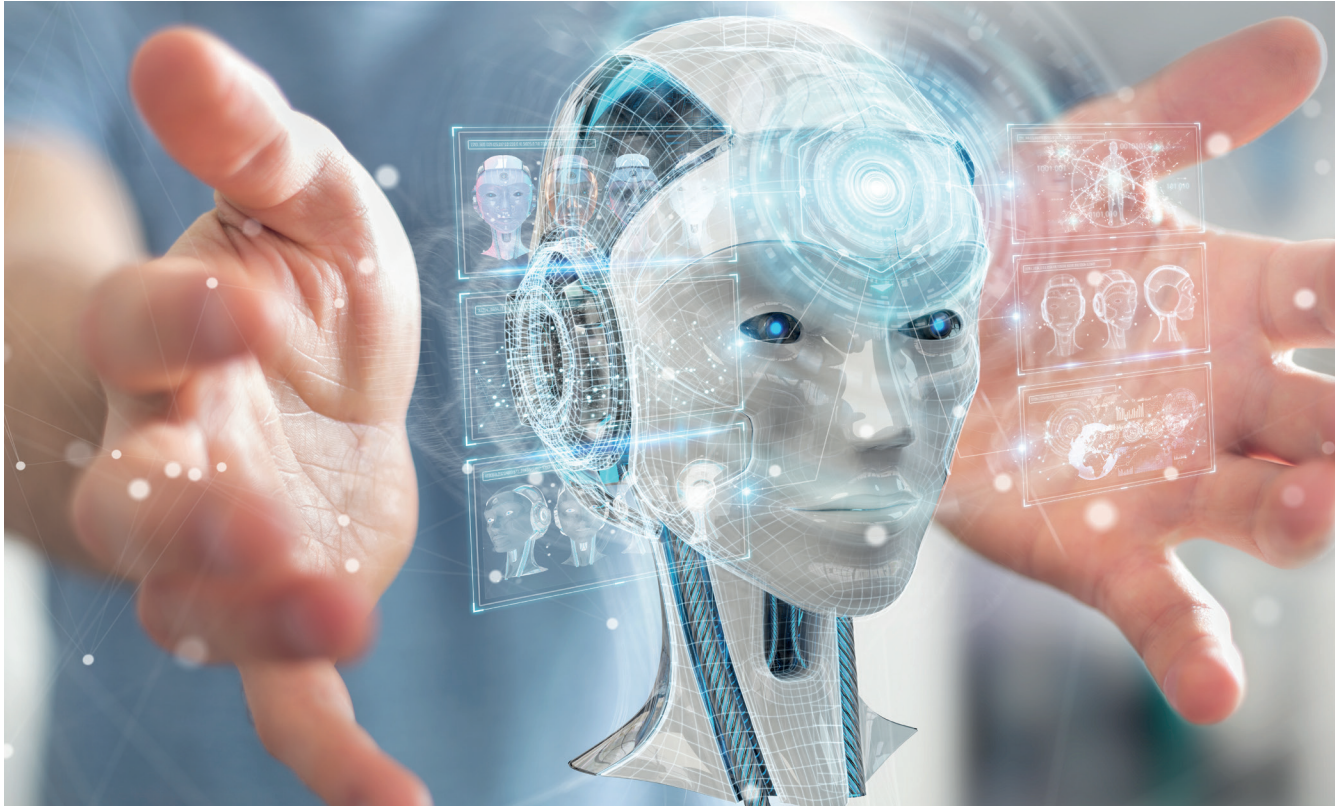




Medical Information Teams Embrace Artificial Intelligence

Blending Human Experts With AI Agents
Cuts Costs, Increases Access, And Improves
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Introduction

Global biopharma companies are constantly looking for ways to increase awareness and engage health care professionals (HCPs) seeking medical information. Many see artificial intelligence (AI) as a big part of the solution.

A new global survey of 105 biopharma companies professionals conducted by Informa on behalf of IQVIA found that 58% of life sciences experts believe that advanced AI agents have the

potential to deliver a customer experience that is comparable to human experts. They also believe that blending human and AI agents can address rising expectations for 24/7 multichannel access to medical information 365 days a year. At a global level, such access based on human-only support is not only costly, but also increases the risk of inconsistent and poor customer experience. AI-based agents mitigate this risk by providing customers with the information they need at the

time of need, whether weekday, weeknight or weekend.

Despite recognizing the benefits that AI can bring, the survey found that many life sciences companies are still moving ahead cautiously—a function of the relative digital maturity of such organizations as well as the underlying need to ensure high accuracy and regulatory compliance.

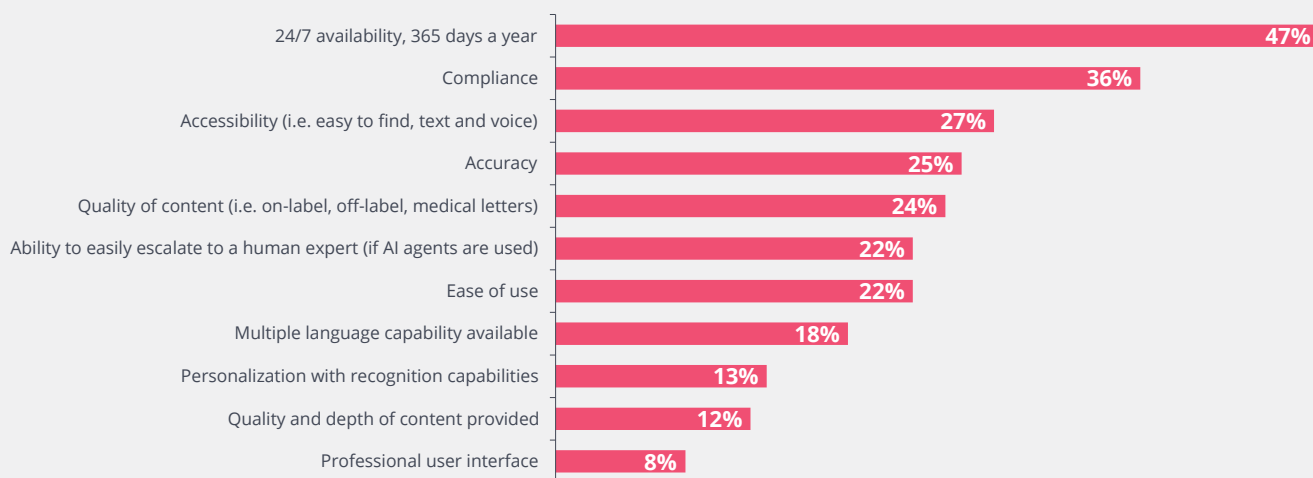
Creating The Customer Experience

When building new medical information capabilities, organizations have a number of key factors to keep in mind.

According to the survey, delivering support 24/7 365 days a year is considered the most important

aspect of medical information support, followed by compliance and accessibility (Figure 1). This need for round-the-clock access to information is indicative of the digital world we live in. HCPs have limited time for research but require knowledge on the latest and most accurate information in real time to provide patients with the best medical outcomes. That increasingly drives the need for easy-to-access and easy-to-consume information via multiple channels. When COVID further pushed the world online, such medical information requests soared as everything went truly digital, based on both the huge global interest as well as filling in information gaps created by the loss of face-to-face contact between sales/product representatives and HCPs.¹

Figure 1: Most Important Aspects Of The Customer Service



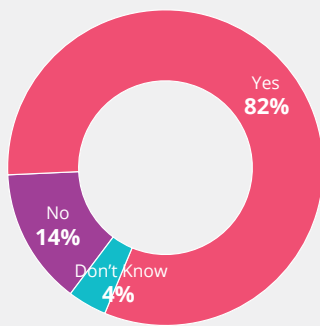
Question: What three aspects of customer experience are most important to your organization when building Medical Information capabilities? (Select up to three.)
Base: All respondents; up to three answers permitted (n=100).

In the industry survey, 82% of respondents report that their organizations offer websites, allowing HCPs to search for product-related information on their own. Of those who provide the websites, 98% report heavy to moderate use of the sites (Figure 2). HCPs use websites to find product information

– both on label and off label - and to report adverse events and product complaints. However, many HCPs want a more interactive experience and, increasingly, short, bite-sized content and answers to their specific questions.

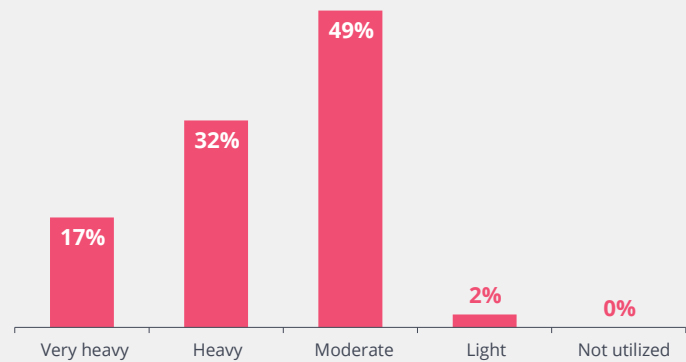
Figure 2: Digital Websites Offered To HCPs Enabling Product-Related Search

Percent Offering Digital Websites For (HCPs) Enabling Product-Related Search



Question: Does your organization offer digital websites for health care professionals (HCPs) to search for product-related information?
Base: All respondents (n=105).

Utilization Of Websites



Question: What is the utilization of these websites?
Base: Respondents offering digital websites (n=83).

The primary goal for medical information teams is to provide quick, easy access to high quality medical information while delivering a superlative user experience in a cost-effective manner. It must also be available 24/7, meaning medical information teams need to host round-the-clock call centers, often in different regions with multiple local

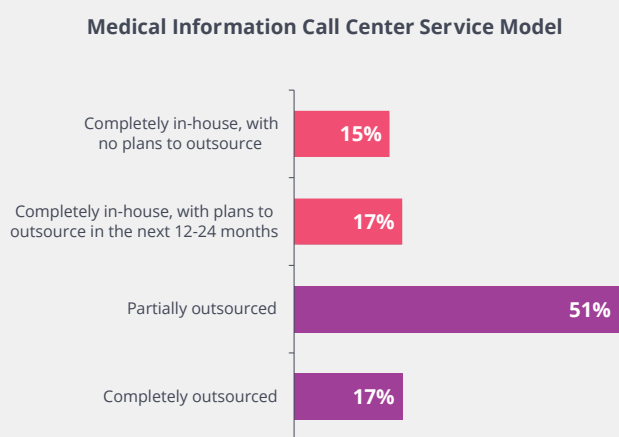
language requirements. It is important to note that while demand for availability is almost double the expectations for accuracy, quality of content and escalation (77% vs 24-27%), these demands need to be simultaneously met for excellent customer experience and compliance.

Global Support Goals And Hinderances

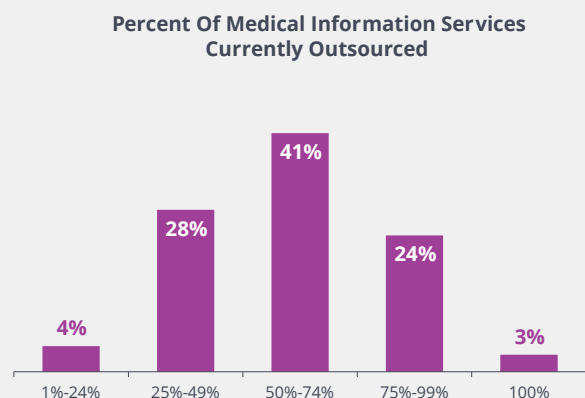
To handle the rising demand for high quality round-the-clock support, many biopharma companies rely on outsourcing their medical information

activities (see Figure 3). 68% either completely or partially outsource regional and global handling of medical information inquiries, adverse event intake activities and product complaint handling.

Figure 3: Call Center Service Model & Outsourcing



Question: What is your organization's Medical Information call center service model?
Base: All respondents (n=105).



Question: What percentage of your organization's Medical Information services are currently outsourced?
Base: Respondents reporting outsourcing at least some of their Medical Information services (n=68).

Outsourcing to call centers is an appealing solution however it doesn't solve every possible need. Selecting an all-human labor approach is costly even in an outsourced model, and customer demand is rarely one-size-fits-all due to factors such as inquiry volume surge capabilities, meaning customization is frequently required.

As one survey participant explained, the balance between human labor and flexibility can be a costly decision when dealing with call centers. "If you have low volumes, you cannot justify paying for multiple live agents but may need them to quickly ramp up as volume increases," noted one respondent.

Using AI agents makes it easier to adapt to widely fluctuating inquiry volumes, and to better manage the cost of meeting customer needs. "Having low costs and regional needs are definitely reasons why we pilot it with our markets here, because we're a smaller division," said another survey participant.

"We are not the main revenue generator for the company, so we have to be conscious of support because human labor costs more money."

Biopharma companies also face inconsistent quality from human-only teams due to translation issues, different levels of skills and training, etc. This can partially be attributed to location. 90% of respondents reported having regional or global teams covering multiple geographies (see Figure 4). "There are situations where you need multiple agents because of different languages as well as translation services," one respondent said.

AI Offers A More Agile Approach As Demand For Medical Information Engagement Continues To Grow

To address these issues, many biopharma companies are moving to integrate AI and human support to strengthen customer experience and

make their Medical Information teams more agile. Nearly 79% of survey respondents say they are either testing or using an established combination of AI agents and human experts in various configurations (see Figure 5). One respondent

reported that his company's medical information team uses AI agents to handle non-urgent issues so his human agents can focus more on complicated activities.

Figure 4: Medical Information Team: Organization & Leveraging AI

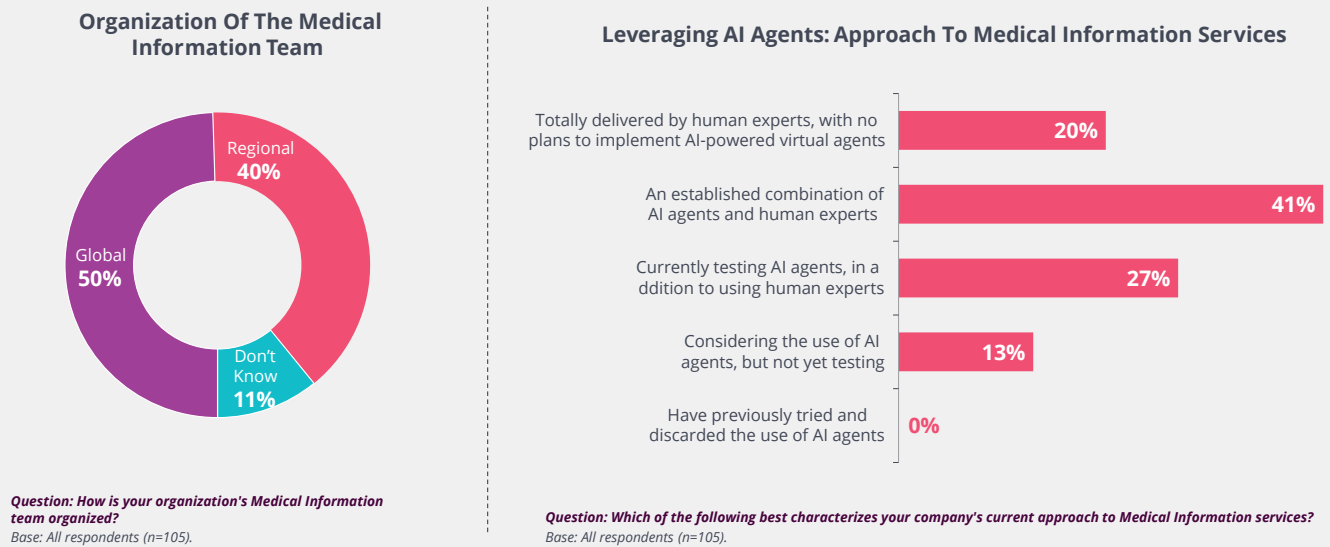
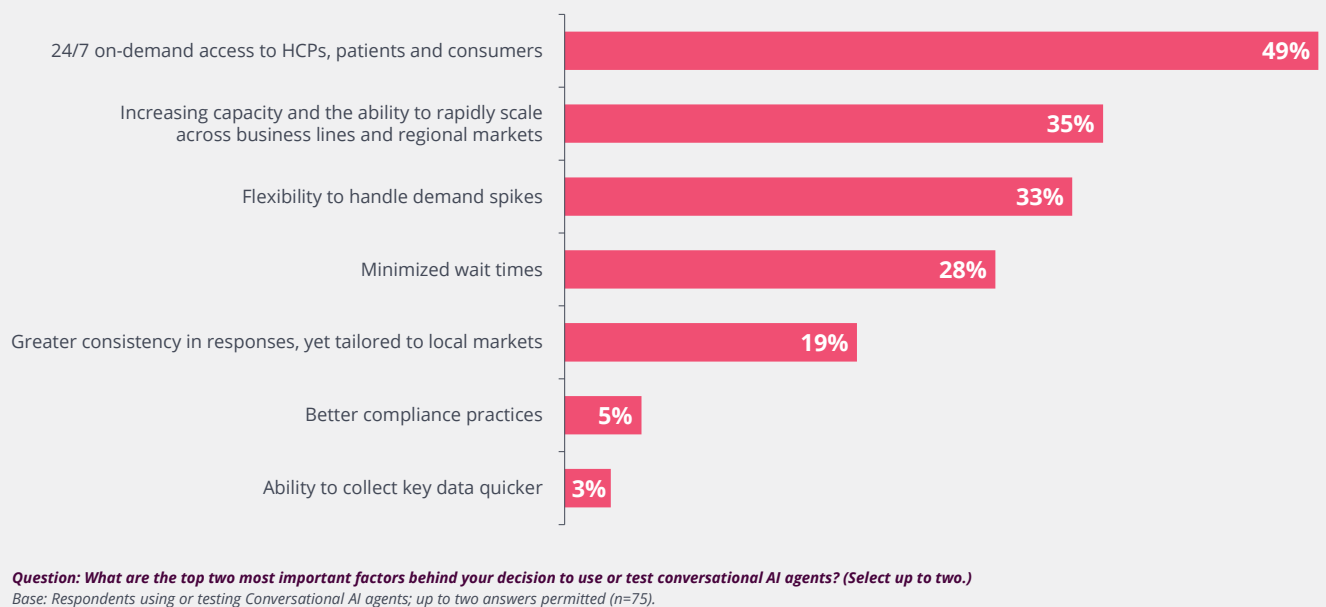


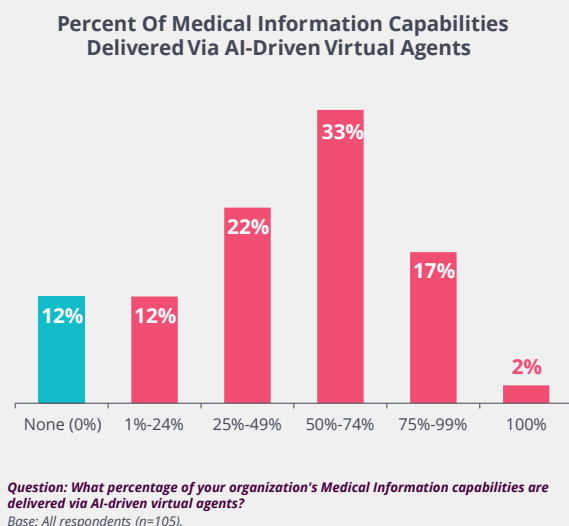
Figure 5: Decision Drivers For Using Or Testing Conversational AI Agents



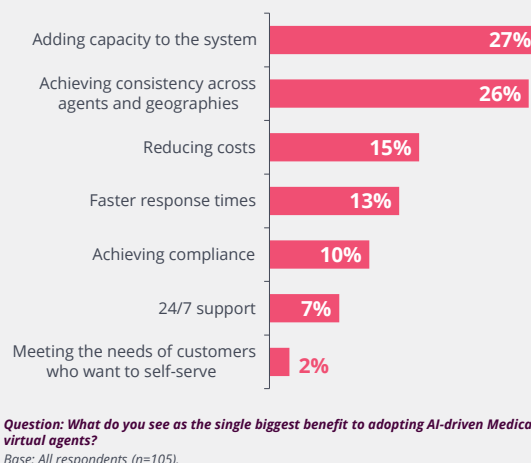
Almost half (49%) of respondents are piloting or using conversational AI agents to address demand for 24/7, 365-day support from HCPs, patients and consumers (Figure 5). Flexibility to increase capacity and scale across the business is also seen as a benefit of AI and human support models (Figure 6). This does not, however, suggest they are a

replacement for humans. Creating seamless AI-human integration is key to driving new capabilities, capacity and customer experience, leveraging AI for what AI does best, and leveraging people for what people do best. Roughly 25% of respondents are using conversational AI agents and 50% more are piloting their usage (Figure 6).

Figure 6: AI-Driven Virtual Agents: Incidence of Use & Primary Benefit



Biggest Benefit Of Adopting AI-Driven Virtual Agents



The Question Of Compliance

The need to get the basic foundations of AI right before moving forward is driven by compliance, which is the second most important aspect of customer service (36%, Figure 1). However, compliance is not seen as a major factor in the ultimate decision to embrace AI for medical information (5%, Figure 5). This disconnect suggests decision makers already believe AI is capable of handling compliance concerns and requirements.

According to the survey, decision makers are more concerned about how to streamline their

medical information workflow using AI technology while adhering to all regulations. "The challenge is we all know there are certain pieces of information that are protected so trying to maneuver around that while you create an automated streamlined system can be tricky," explained one respondent.

But it must be done, or life sciences companies face considerable risks. "It is imperative to... verify that there is nothing captured that could be used against you by a governmental entity," one respondent said. That can cause some decision makers to be hesitant. "It's on you, and of course if

it's new, then people are worried.”

Human And AI Connection Barriers And Bridges

While most Medical Information teams within biopharma companies are open to new technologies, many are still in the early stages or have not begun to adopt AI solutions. This largely stems from a lack of IT infrastructure (39%, see Figure 7) and delayed buy-in from decision makers (39%). While both obstacles are equally important, respondents reported that senior leadership’s opinion regarding adoption is a driving factor.

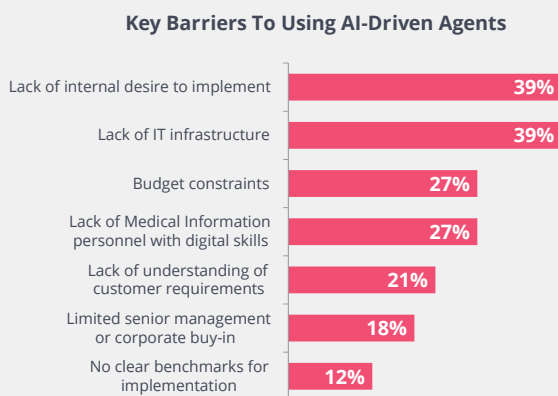
The lack of buy-in often stems from poor past experiences with first-generation ‘conversational’ agents or non-verticalized (not purpose-built for Life Sciences) tools. “They (didn’t) necessarily give you the answer you were asking for,” noted one respondent. “You’d end up going through five

questions just to get annoyed.” That has led many to cling to the inaccurate assumption that a human approach is superior to AI.

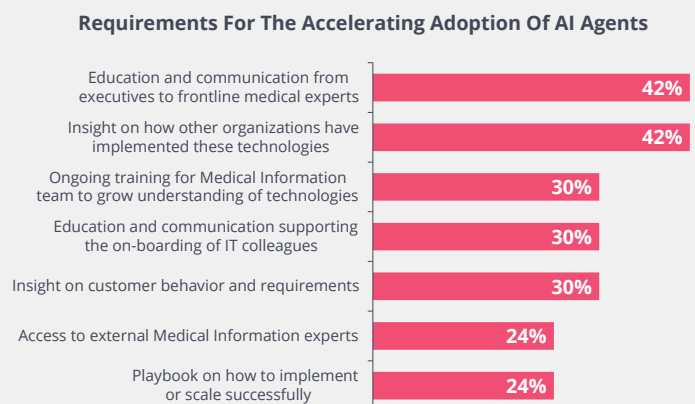
One respondent reported that the risk adverse nature of his leadership has led to a “technological phobia, where leaders go with their intuition,” and thus sticking with what they know instead of investing in new technologies. Such experiences and views were echoed repeatedly by respondents as a potential obstacle to overcome.

AI technology has significantly advanced in recent years, including understanding complex, multi-intent and technical questions and responding with natural language that feels almost human. However, winning support for a blended AI-human model will only occur if leadership believes in the technology and can see impactful results from piloting AI-human systems.

Figure 7: Failure to Use AI: Key Barriers & Acceleration Requirements



Question: What are the three most significant barriers to using AI-driven agents within Medical Information services at your company? (Select up to three.)
 Base: Respondents not currently using AI; up to three answers permitted (n=33).



Question: What are the top three things your company would need to accelerate adoption of AI agents alongside of human experts within Medical Information? (Select up to three.)
 Base: Respondents not currently using AI; up to three answers permitted (n=33).

The two most common requirements for accelerating the adoption of AI agents both focus on leadership. The first requirement, conveyed by 42% of respondents (see Figure 7), requires senior stakeholders to educate and communicate with frontline medical information experts. The second, also at 42% (see Figure 7), focuses on gathering insights from other organizations who can demonstrate successful human and AI agent integration.

One respondent is addressing the second requirement by monitoring competitors and learning from their mistakes before jumping into 'next-generation' AI agents. Another suggested that as new decision-makers join companies from other industries, the decision to adopt conversational AI agents becomes obvious. This is largely because other industries have broadly adopted human-AI integration where, often, AI agents act like assistants to the live agents, supporting and optimizing the inquiry handling process.

However, even with insights from other industries, adoption of blended AI and human medical information models will not happen overnight. It takes thoughtful planning in the context of Life Sciences, the development of medical information-specific AI algorithms and taxonomies, and new workflows to determine when an inquiry can be sent to an AI agent and when it should be handled by a human agent.

An Integrated Future

Speed, accessibility, quality and cost are issues for companies in any industry. But for the Life Sciences industry, finding solutions that balance all these issues are even more valuable because of growing demand for healthcare and the impact on human lives. Today's technologies offer great potential for AI-human integration and "collaboration", and solutioning for biopharma's need to scale, deliver faster and better customer experience, while decreasing costs.

As we look to the future, using AI agents to unleash human agents is going to be critical for the global provision of medical information support to both HCPs and patients. The reality is that even Life Sciences companies are tech companies now. Education and communication from senior executives to frontline medical information experts are given necessities when seeking to integrate AI agents and human experts.

While many organizations are charting their own course via small pilot projects, others are accelerating the journey by outsourcing to companies that specialize in blending AI/human agent medical information interactions. As one respondent simply stated, "You can't just mess around with telephony and fax and email forever. The future is here, you just have to start."

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1. Johns, Simon and Marcil, Richard. "COVID-Driven Surge Pushes Medical Information Teams to Virtualize: Key considerations for a scalable capability." [IQVIA.com](https://www.iqvia.com). 22 Ju. 2021.

About IQVIA

IQVIA (NYSE:IQV) is a leading global provider of advanced analytics, technology solutions and clinical research services to the life sciences industry. IQVIA creates intelligent connections to deliver powerful insights with speed and agility – enabling customers to accelerate the clinical development and commercialization of innovative medical treatments that improve healthcare outcomes for patients. With approximately 82,000 employees, IQVIA conducts operations in more than 100 countries.

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