

# ClinicalAI Companions

Clinician's perspective on Generative AI  
and the future of healthcare

Day One  QuestionPro



Renewed Perspectives

# Summary

As healthcare systems globally face the challenge of escalating demand and constrained resources, actions for maintaining and enhancing care quality has become critical.

Generative Artificial Intelligence (AI) capabilities of generating images and text, as well as analyze data, has opened a new window in enhancing patient care, diagnosis, and treatment planning.

However, these advancements raises the question: "What are clinicians' perspectives on Generative AI in healthcare?" This question underscores the need to understand the frontline experiences and attitudes of healthcare professionals as they navigate the integration of this transformative technology, possibly shaping the future of patient care in an AI-driven era.

In this quantitative study we have found that despite broad optimism about the benefits of the use of Gen AI in healthcare, those on the front lines of delivery have grave concerns about its implementation.

This study of 501 clinicians in the U.S. was developed by Day One Strategy Ltd, a global data, insight and advisory firm, and powered by QuestionPro, a global provider of online survey and research services that help companies make better decisions through data.

Building upon the insights from this comprehensive analysis, our study delineates the journey of Gen AI in healthcare into two pivotal phases: Awareness and Implementation. These phases serve as the foundation for understanding the relationship between clinicians and Gen AI, from initial familiarity to personal and/or practical application.

Following this exploration, our study identifies three takeaways for healthcare executives to foster a conducive environment for AI integration: Trust, Training, and Policy & Governance.

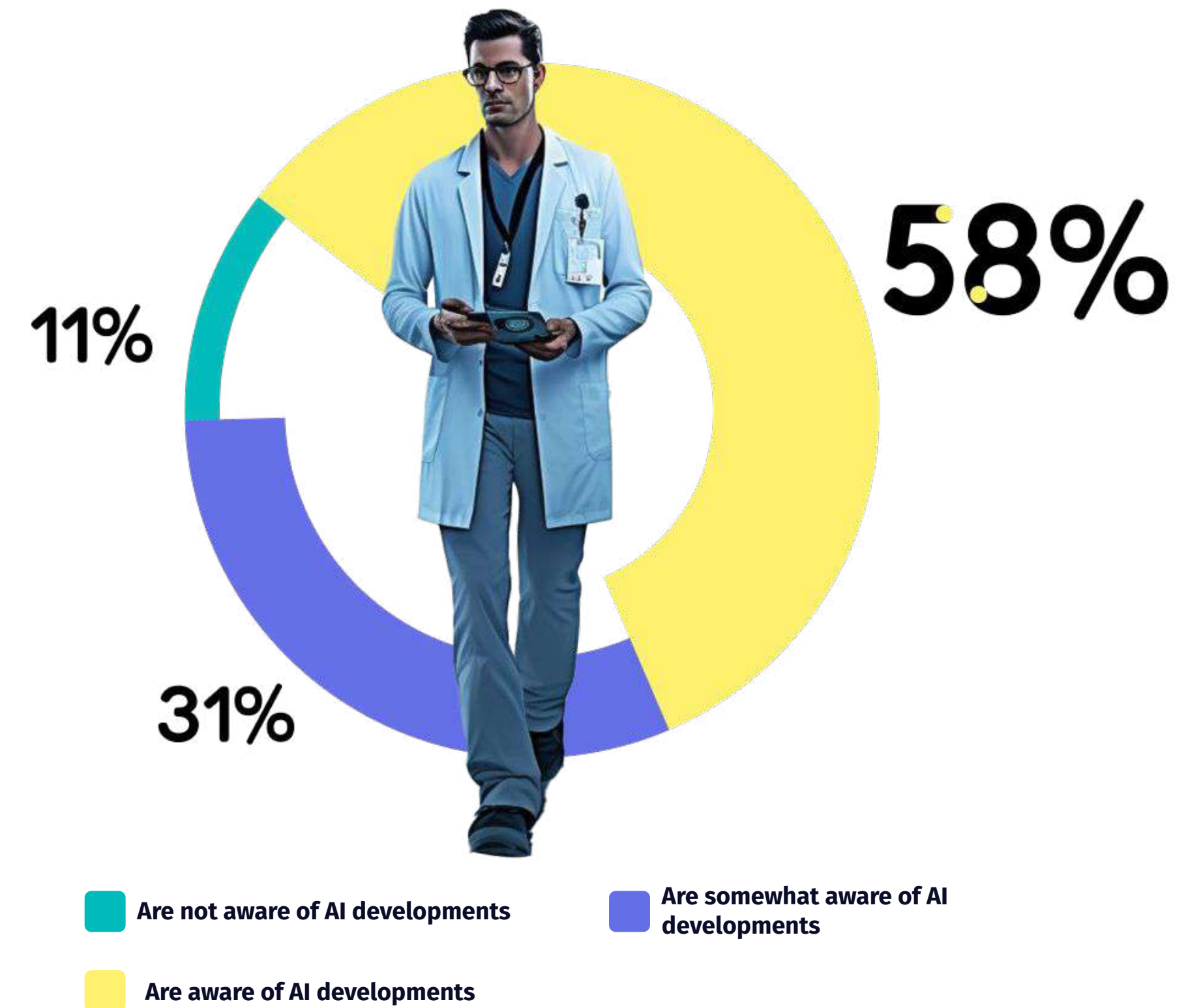
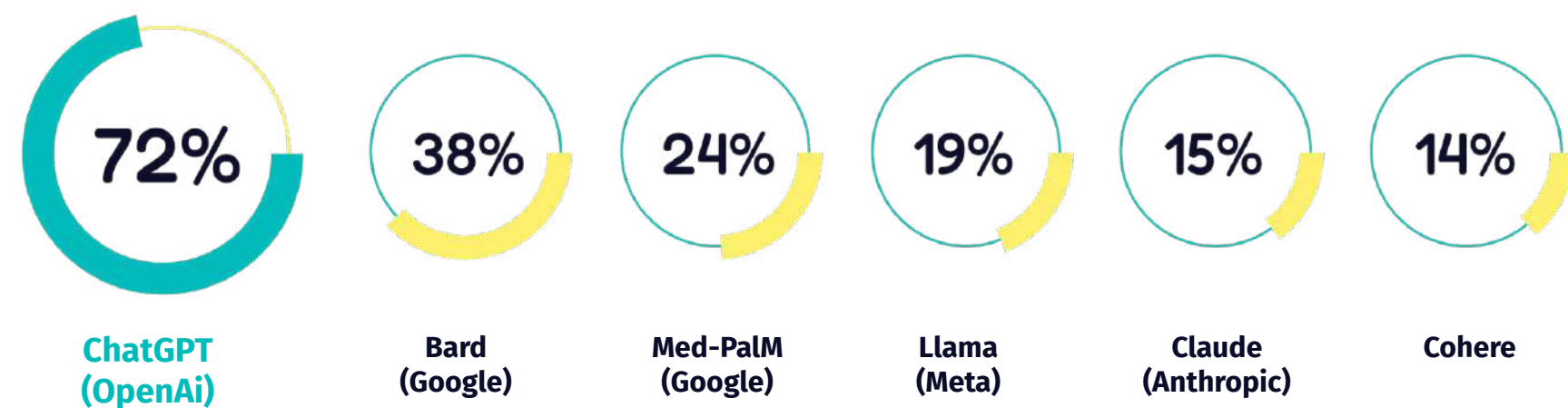
*Technical note: This report was developed by Day One Strategy and conducted online by QuestionPro Research Services. Survey was fielded from January 2nd to January 17th on the year 2024.*



## Awareness and Usage of Gen AI

The awareness and usage of Generative AI among clinicians closely align with the general population, indicating a shared enthusiasm and curiosity towards technological advancements. **Two-thirds of clinicians (58%) are informed about Gen AI developments**, showcasing a broad engagement with new technologies in healthcare.

Notably, **72% of clinicians have experience with ChatGPT**, making it the most utilized Large Language Model (LLM) among healthcare professionals. This preference highlights ChatGPT's prominence and suggests a growing reliance on AI tools that offer practical benefits in clinical practice.

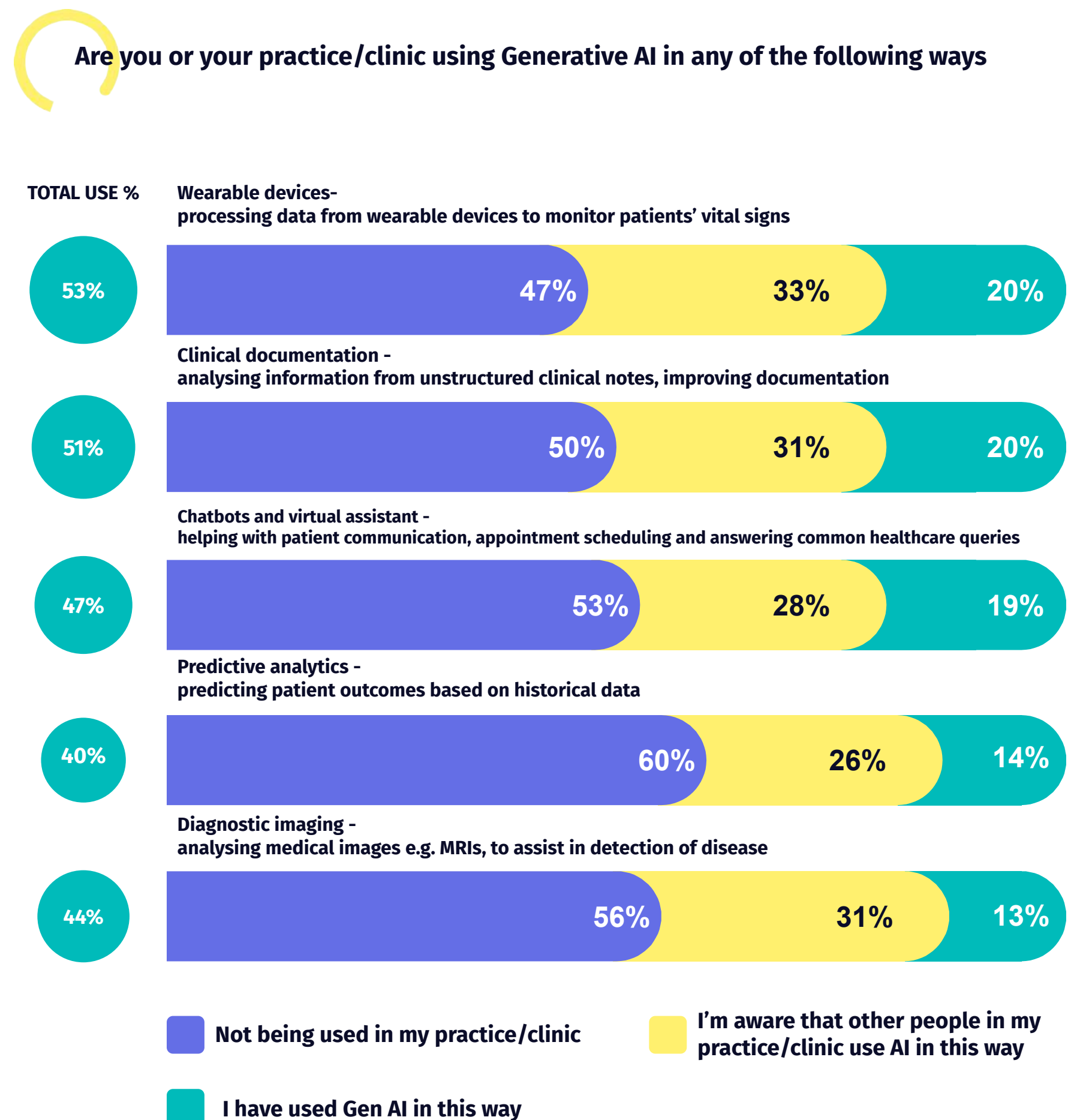


# Usage of Gen AI

“What’s stopping doctors from focusing on the delivery of healthcare? With 80% of clinicians not using Gen AI regularly for clinical efficiency.”

While clinicians recognize the potential of Generative AI to enhance healthcare delivery, its adoption in clinical environments remains limited. This slow adoption curve may not be due to a reluctance to embrace AI but rather from the challenges inherent within the healthcare ecosystem itself. From other research studies, we have seen challenges such as the need for clearer interpretability of AI algorithms, overcoming legacy data issues, and the substantial financial and infrastructural commitments required for clinical trials are significant\*.

Clinicians report awareness of Gen AI applications in several critical areas: **53% note its use in processing data from wearable devices** to monitor patient vitals, indicating a stride towards more proactive and personalized patient care. Clinical documentation sees a close second, with **51% acknowledging AI's role in analyzing unstructured clinical notes** to enhance documentation accuracy and efficiency. Nearly half (47%) are aware of chatbots and virtual assistants aiding in patient communication and scheduling, while 44% recognize AI's contributions to diagnostic imaging, and 40% to predictive analytics.



\*Source: Exploring the opportunities and challenges of implementing artificial intelligence in healthcare: A systematic literature review (2023) & other sources

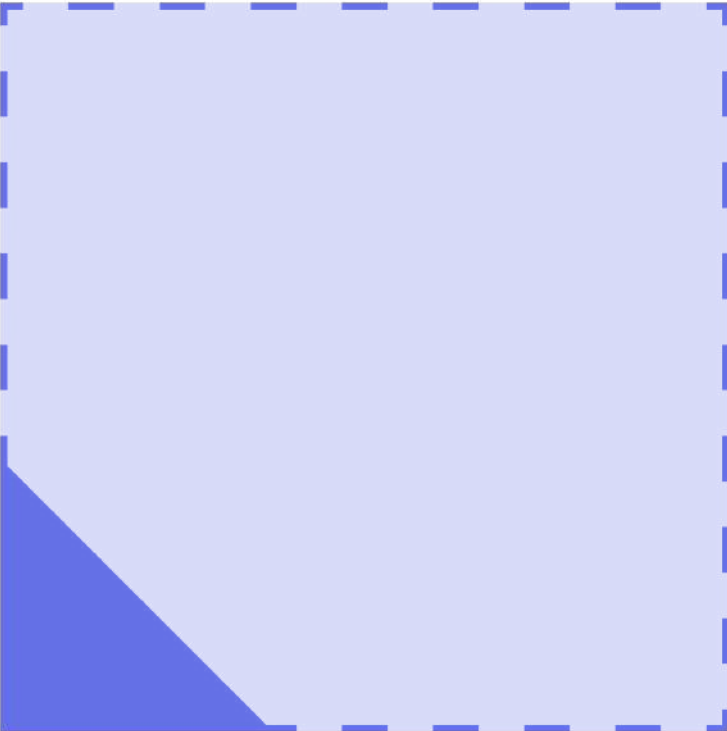
# Implementation of Gen AI

A significant trust gap exists in the healthcare sector regarding the implementation of Generative AI, with two-thirds of clinicians expressing skepticism towards their hospital or clinic leadership's ability to deploy Gen AI effectively. This sentiment is compounded by the fact that **almost a fifth of clinics have incorporated Gen AI into their 2024 strategic objectives.**

Furthermore, **just a tenth of clinicians have observed any formal policy on Gen AI usage** within their healthcare settings, and even fewer report active development of their own Large Language Models (LLMs). This widespread mistrust and the lack of strategic prioritization underscore the challenges facing Gen AI implementation in healthcare environments.

**32%**

**Trust in their hospital/clinic leadership with the implementation of Gen AI**



**17%**

**My Clinic/Hospital is prioritizing Gen AI in its 2024 strategic objectives**



**10%**

**We have a policy on the use of generative AI in our clinic/hospital**

“

## The clinician take on Gen AI

“As a Clinician, I am enthusiastic about generative AI’s potential to transform the healthcare experience, including reducing burnout for physicians by alleviating administrative tasks and allowing them to focus on connecting and caring for patients. As healthcare providers and as a society, we must integrate technology responsibly to deliver better patient care and preserve this irreplaceable power of human-to-human interaction.”

”



Dr Hemalee Patel  
Digital Health  
Leader/Internist-Primary Care



# AI in Healthcare: Trust, Training, and Regulation

Yet despite high levels of personal use and optimism for its future impact in healthcare, clinicians remain wary of using AI for healthcare in the near term. The path forward will require boosting trust, training and regulation.

## Trust

Clinicians don't trust the technology: there is a higher level of mistrust (27%) than trust (22%) in the current AI algorithms. They don't trust management: two-thirds don't trust their hospital/clinic leaders. And they don't trust that AI will reduce liability: 4 in 10 believe that AI use will put them at greater risk of liability.

## Training

Nearly half (42%) of clinicians are unprepared for implementation of Gen AI into their practice but 50% agree that implementation will require new training. Given the significant concerns about liability, it's clear that not only will the technology need to improve, but that clinicians must believe that they are trained in its proper use.

## Regulation and governance

Regulation, policy and governance are a must to increase adoption. The survey found less than 1 in 5 clinics are prioritising GenAI in 2024 strategic objectives and only a tenth have seen a policy on the use of Gen AI in their clinic/hospital. Meanwhile, a solid majority (6 in 10) of clinicians agree that AI in healthcare needs government regulation.



# Trust

Trust is a significant barrier due to the need for accuracy and reliability before clinicians feel comfortable using it

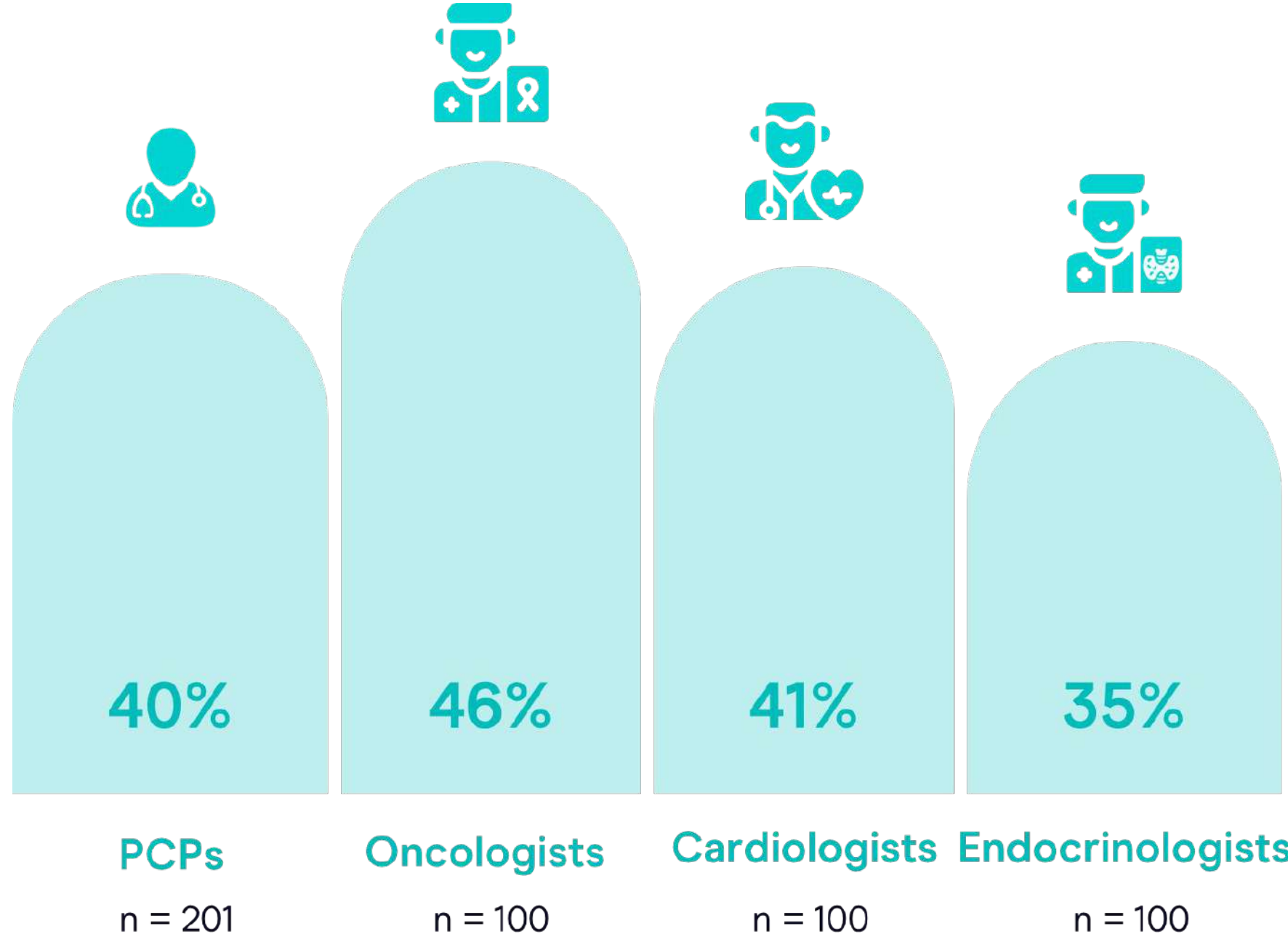


# Doctors do not feel comfortable using AI

Before talking about trust of clinicians on Gen AI it's insightful to consider clinicians' comfort levels with technological advancements. The survey revealed that 41% of clinicians feel comfortable with developments in Gen AI tools, with oncologists feeling more comfortable (49%) and endocrinologist the most uncomfortable (35%). This comfort levels varies across the different specialties, but it sets the stage for understanding the perspectives of trust or distrust in AI algorithms within the medical community.



How comfortable would you say you are with the developments in Generative AI (e.g. ChatGPT, Med-PaLM) in healthcare?



\*Source: Artificial Intelligence and Human Trust in Healthcare: Focus on Clinicians (2020)

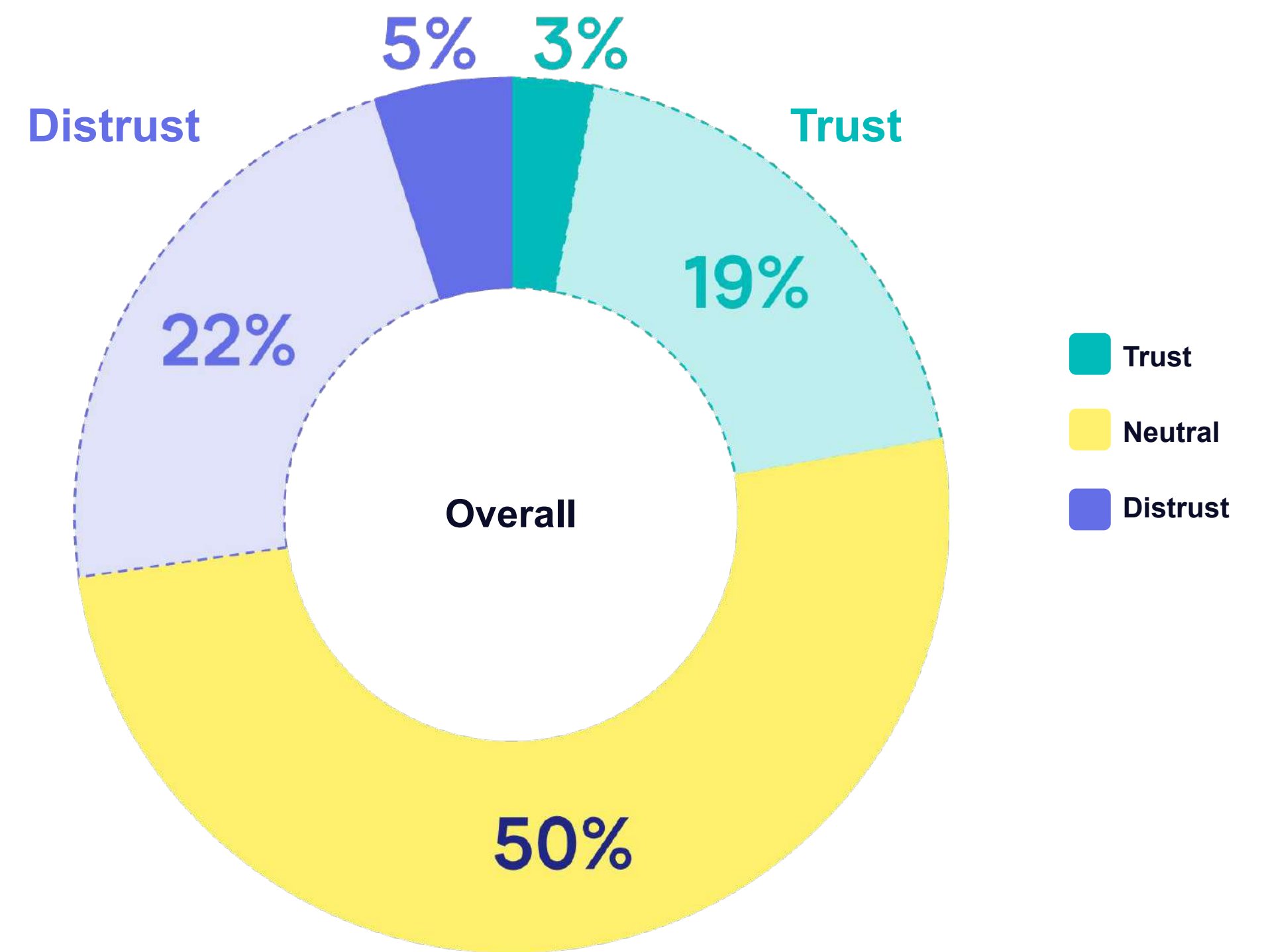
## Trust in Gen AI

### “Trust or Not Trust? We don’t know!”

The integration of Generative AI into healthcare faces a notable trust divide, with a higher level of **distrust (27%)** among clinicians compared to those who express **trust (22%)** in AI algorithms. This skepticism is compounded by concerns over increased liability, highlighted by the fact that only a fifth of clinicians believe AI will decrease their liability, while **40% view it as increasing their risk.**

The delayed adoption of AI in healthcare may be influenced by factors such as user training, past experiences, and the AI's controllability and transparency. Reliability is a critical concern, with the consistent performance of AI being important yet variable with every new data input. Addressing these challenges requires creating AI systems that are transparent, reliable, and comprehensible to clinicians, ensuring their effective and confident use in patient care.

How much do you trust AI algorithms?



\*Source: *Artificial Intelligence and Human Trust in Healthcare: Focus on Clinicians* (2020)

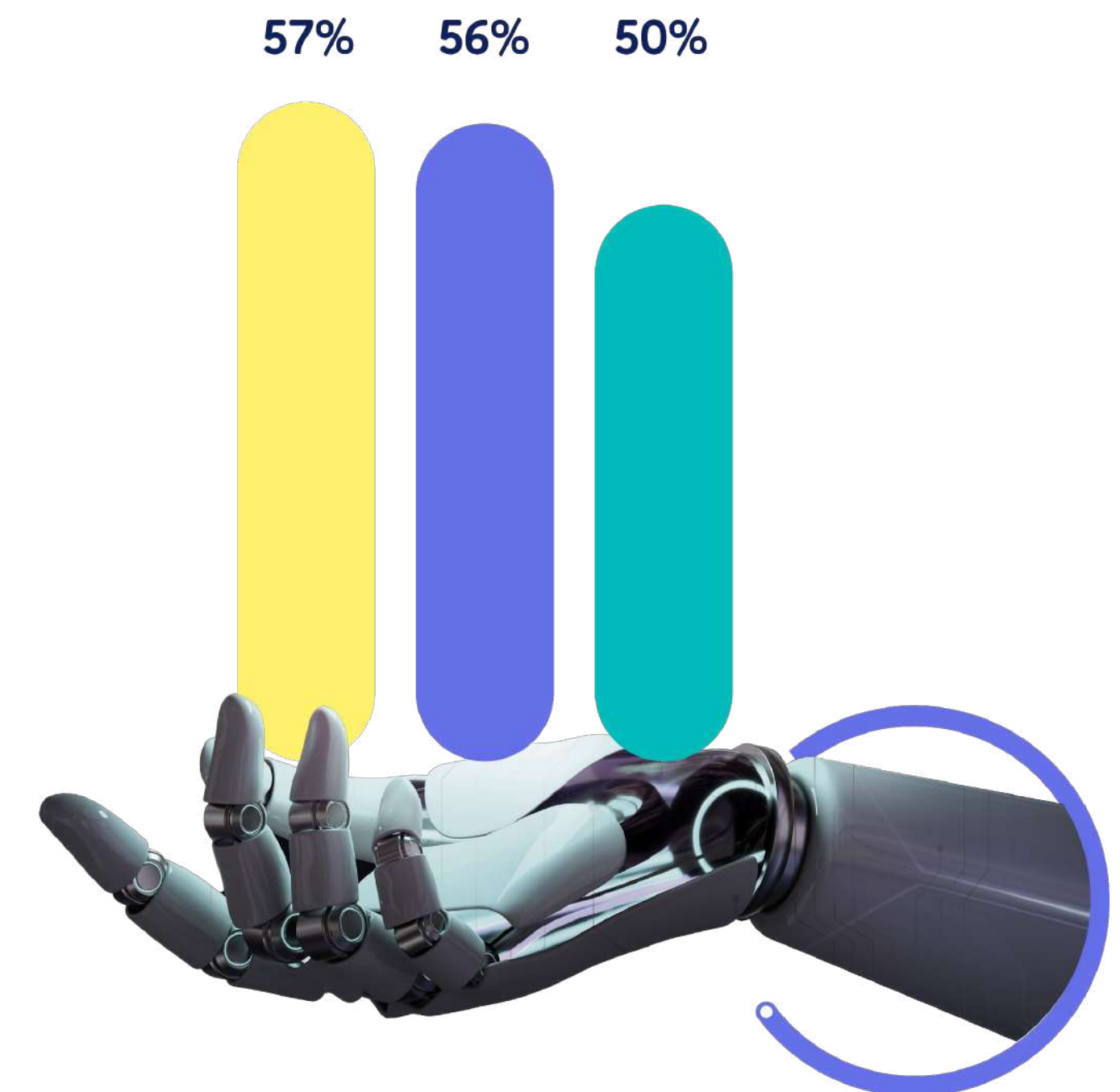
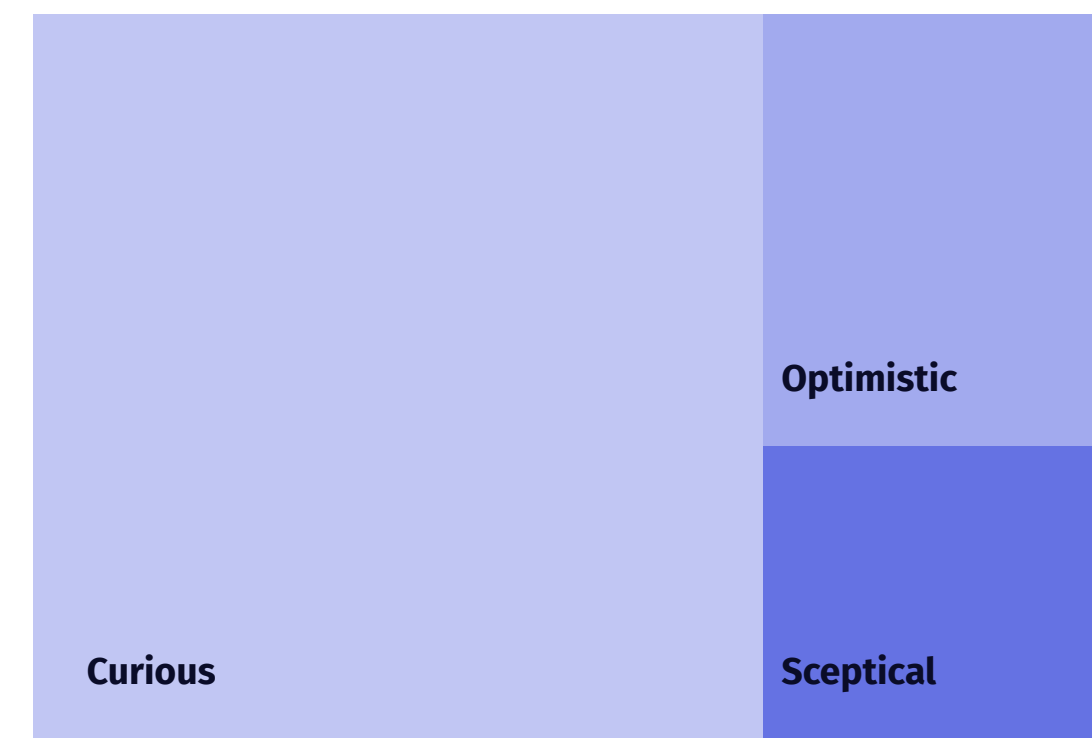
## Sentiment and potential

However, it's not all negative! We would suggest clinicians look to GenAI with cautious optimism. Medics thoughts on Gen AI are mostly represented with words like cautious, sceptical, and optimistic.

Recognizing the transformative power of GenAI, over **half of the healthcare professionals** surveyed (57%) believe that AI can significantly reduce the time spent on various tasks, thereby streamlining their workflows. Similarly, 56% foresee a future where GenAI radically changes healthcare delivery, and 50% are confident that it will enhance the quality of patient care.

This optimism is further supported by the potential benefits GenAI could offer in clinical diagnosis and treatment. AI's ability to rapidly process and analyze large datasets can lead to a deeper understanding of patient conditions, including diseases, minimizing unnecessary tests and investigations. Moreover, Gen AI can expedite the diagnostic process, ensuring patients receive timely and appropriate care.

### Overall



- AI can save me time
- AI will help health care providers deliver better patient care
- AI will transform the way we deliver healthcare

“

## Building trust in Gen AI

Surprisingly, half of clinicians do not know whether they trust (or not trust) Gen AI tools. Sure, there is much to be done by clinic & practice leadership teams and regulators in terms of setting strategy, policy-making and putting up safety guardrails. But there is more complexity to building trust and successful implementations, and we can take a leaf out of innovation playbooks and digital health history lessons.

1. Be transparent with how it works and where data goes
2. Co-create new workflows with clinicians
3. Run rapid test-and-learn pilots to prove efficacy and trustability

”



Pin Chin Kwok  
Ex-Digital Health Startup CEO  
& Corporate Innovator



# Training

There is apprehension about the implementation of Gen AI into practice due to a lack of preparedness and the need for re-training



## Gen AI will require additional training

As Gen AI increasingly becomes a part of healthcare, a significant shift in medical training appears imminent. With **50% of clinicians acknowledging the potential need for retraining to effectively utilize Gen AI**, the focus turns to what this new education should cover.

It's clear that future training must go beyond traditional medical education, incorporating a deep dive into AI functionalities, ethical considerations, and the practical application of AI in patient care. This includes enhancing physicians' skills in interpreting AI-generated data and decisions, understanding the limitations and biases of AI algorithms, and integrating these technologies into a patient-centered care model.



The need for additional training on GenAI is apparent, with **42% of clinicians voicing a sense of unpreparedness for AI implementation**, reflecting a broader sentiment within the medical community. This feeling among clinicians may be compounded by the increasing use of AI by patients for self-diagnosis and treatment information, pushing clinicians into uncharted territories without the necessary support structures in place.

The transition to digital processes, while intended to streamline care, has inadvertently added to the administrative burden on healthcare providers, contributing to professional burnout. Additionally, the lack of clear legal frameworks around the use of AI recommendations poses a challenge, leaving clinicians uncertain about the implications of integrating AI into their practice.





## What are we waiting for?

The question, 'What are we waiting for?' becomes ever more pressing. In a world where Generative AI could redefine our capabilities, the real challenge lies not in acknowledging its potential but in overcoming our reservations to fully leverage this technology. It's time to shift from cautious observation to active engagement, transforming potential into tangible benefits for healthcare and beyond.



Dr. Michael Housman  
Chief Executive Officer,  
AI-cclerator

## Key Takeaways

“The ClinicAI Companions study echoes a phenomenon that's becoming increasingly apparent across industries: while there's unanimous agreement on the transformative potential of Generative AI, the pace at which we're embracing it in practical applications remains surprisingly sluggish. This hesitancy -- rooted in a blend of distrust, concerns over security and privacy, and a lack of training -- is paradoxical given the unprecedented opportunities at our fingertips. It's a pattern not exclusive to healthcare but observable across the board — as highlighted by recent research reports on ChatGPT's explosive yet shallow user engagement.”

It is true that Generative AI, despite its vast potential and initial user enthusiasm, struggles with user retention and engagement across various sectors, not just in healthcare. This phenomenon is illustrated by comparing month one mobile app retention rates of AI-first applications with those of established entities, revealing a significant drop-off in user commitment. Moreover, generative AI applications (ChatGPT, character.ai,, runway) exhibit a median daily active user (DAU) to monthly active user (MAU) ratio of only 14%, significantly lower than the 60-65% seen in top consumer companies (WhatsApp, Instagram, YouTube)\*.



\*Source: *Generative AI Act two*, Sequoia Capital (2023)

# Regulation and governance

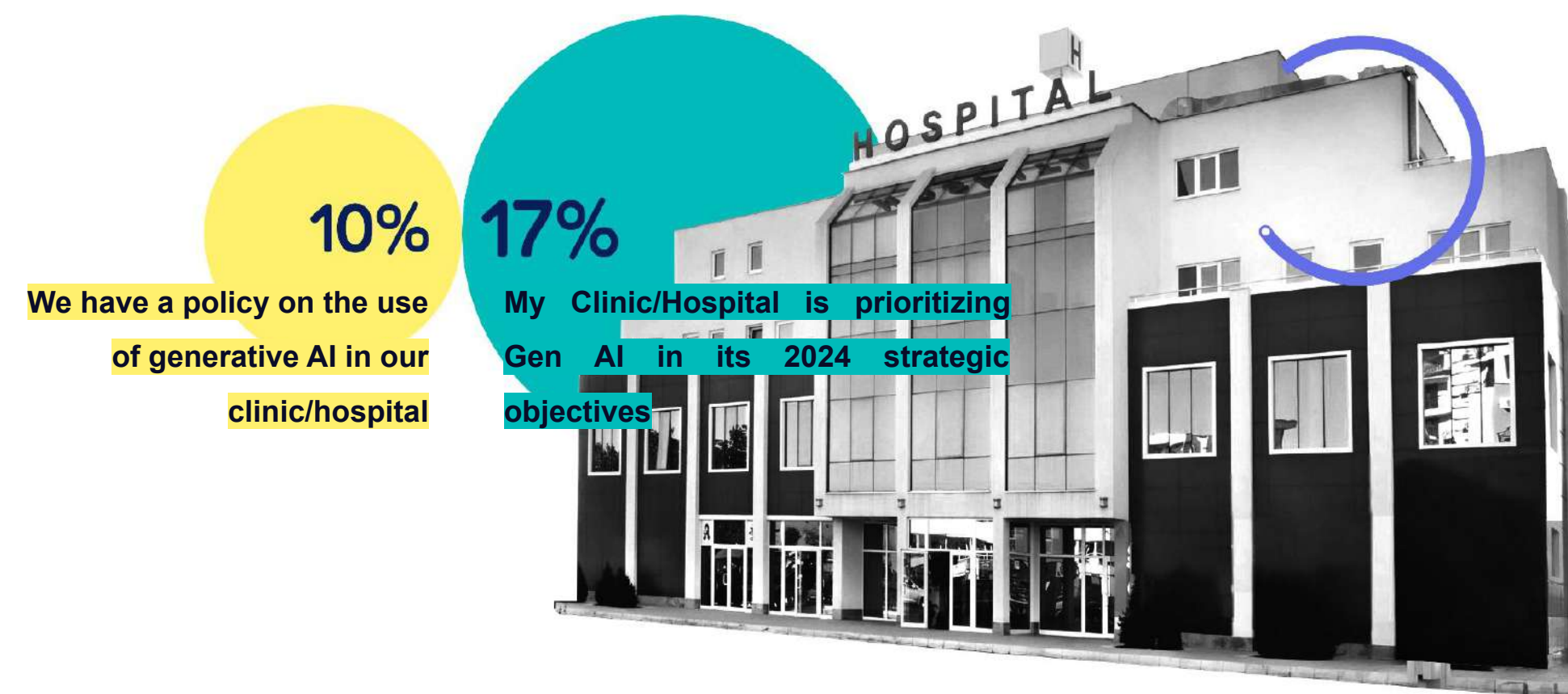
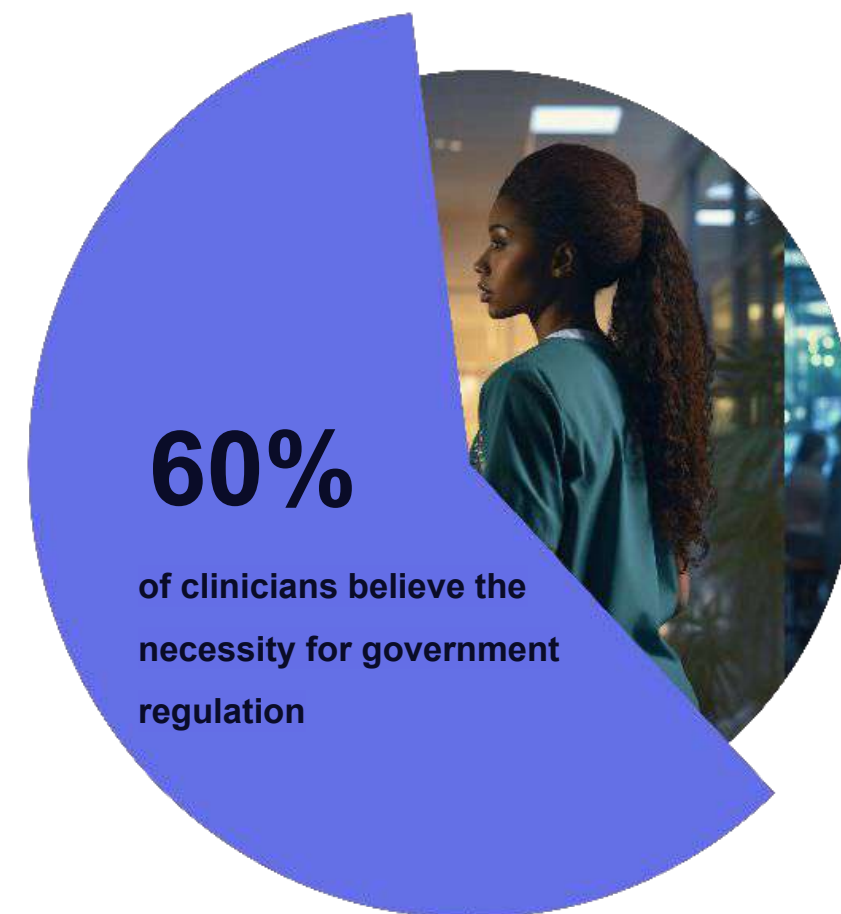
Addressing concerns around data privacy, regulatory compliance and patient safety are key to driving uptake



## Regulation, policy and communication

Amidst feelings of unpreparedness and the acknowledgment that half of clinicians might need retraining for effective AI implementation, an overwhelming **60% emphasize the critical necessity for government regulation** in the AI domain.

The push for regulatory frameworks is further justified by the complexities involved in AI applications, including issues of bias, transparency, and accountability. Clinicians' apprehension about navigating AI's benefits and challenges without robust legal and ethical guidelines signifies a prudent approach to adopting technology



The integration of Generative AI into healthcare practices highlights a significant gap between clinicians' awareness of AI and their institutions' priorities, strategic objectives and policies. Data reveals that **only 17% of clinics have placed Gen AI among their strategic priorities** for 2024. Healthcare institutions are considering and potentially prioritizing Gen AI, however, the communication of these initiatives are not effectively penetrating to clinicians at the operational level and adoption remains low.

Furthermore, the knowledge gap extends to policies governing the use of Gen AI, with only **10% of clinicians reporting familiarity with policies** within their clinics or hospitals. This discrepancy raises questions about the development, transparency and dissemination of information regarding Gen AI policies. The necessity for healthcare institutions to not only develop clear strategies and policies for Gen AI integration, but to ensure these frameworks are effectively communicated to all stakeholders, is vital for those on the front lines of patient care. Enhancing clinicians' awareness and understanding of Gen AI strategies and policies is crucial for fostering an environment of informed engagement and collaborative evolution of AI-enhanced healthcare.



## A need for a Gen AI vision

“Most health systems and institutions are missing opportunities to harness the benefits of GenAI benefits for increased efficiencies, improved patient outcomes, better quality care, and increased equity for all people. Physician and patient engagement and trust can only be achieved through strategies that articulate a vision for how, why, and where AI will be used supported by policies, regulations, ethical considerations, transparency and accountability, and continuous monitoring and evaluation of GenAI for health.”

## Key Takeaways

**Awareness of AI among clinicians:** “The findings are not surprising no one is systematically mapping out the use cases and change pathways where and how AI can contribute to improved healthcare delivery or patient outcomes alongside some of the more operational applications. There are some sporadic case studies and examples, but not a complete picture of the range of opportunities and possibilities that GenAI is creating.”

**Trust in AI algorithms:** “The trust issue has a lot to do with the black-box nature of GenAI. No one knows what’s behind the curtain, and there have been some highly public failures in the use of AI for health- some to do with safety and others to do with equity/racial and gender bias. Without policies, transparency, or a record of what data is being modeled and/or how the models are constructed or the engagement of health professionals in the design and testing of GenAI in health- this will not easily be overcome.”

**Clinician preparedness:** “They can’t do this without the proper systems or protections to guide adoption and use. It’s too risky and they also don’t have the training to shape AI, which we will increasingly want and need them to do.”

**Strategic prioritization of Gen AI** “Not surprising. To truly harness the benefits, clinics/hospitals need to map and articulate a vision and objectives for where, how, and why they are going to leverage GenAI. Then they need to clearly define use cases and put in metrics to assess whether or not it's doing what they think it will do.”

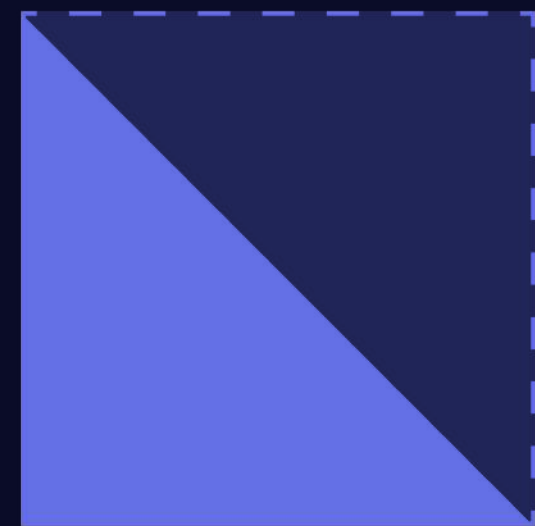


Patricia N. Mechael, PhD MHS  
Chief Executive Officer,  
Health Enabled

# Bridging the gap of AI in healthcare

## Targeted Care

51% of clinicians think AI can help them provide better care for patients.

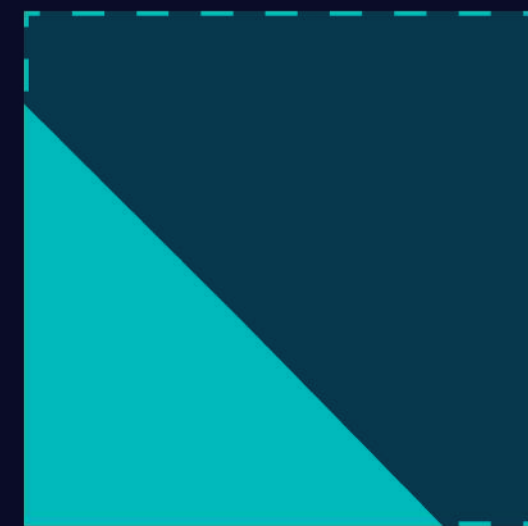


51%

AI can help me provide more targeted care

## Confusion

But there's still some mistrust, as 38% of these clinicians believe AI can cause greater confusion.

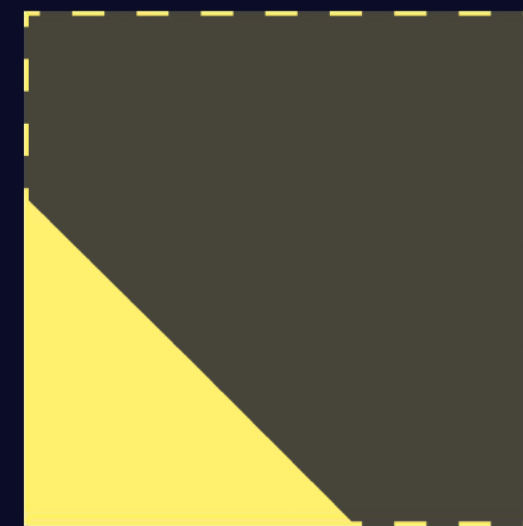


38%

AI will cause greater confusion

## Discussion

Only 1 of every 4 clinicians are involved in their clinics/hospital discussions of Gen AI.



27%

Are involved in discussions at my clinic/hospital on the topic of Gen AI

Generative AI holds the promise of revolutionizing patient care, with over half of clinicians (**51%**) **believing that AI can significantly enhance the care they provide.** This optimism is grounded in the potential for AI to streamline complex processes, personalize treatment plans, and ultimately, deliver outcomes that are more closely aligned with individual patient needs.

However, the journey towards fully realizing the benefits of AI in healthcare is not without its challenges. **38% of clinicians express concerns** that the introduction of AI could lead to greater confusion, potentially complicating clinical processes rather than simplifying them. This skepticism highlights the necessity of clear communication and comprehensive training to ensure that AI tools are used effectively and enhance the clinical workflow.

**And without involving doctors in discussions around Gen AI how do we expect to improve uptake?**

The involvement of clinicians in the conversation about Gen AI is critical. **Only one in four clinicians reports being part of their clinic or hospital discussions on the subject.** This lack of involvement is a significant barrier to adoption, as buy-in from those on the front lines of patient care is essential for the successful integration of any new technology.



## The call to action

The findings from the ClinicAI Companions study are promising and provide a clear call to action - Clinicians are engaging with Generative AI but they need top-down guidance and practical support to harness this opportunity. It is an opportunity for Providers, technology and health companies to think about how they integrate AI, responsibly train Clinicians and give transparency on the limitations of the LLM models”

## Key Takeaways

The results of our ClinicAI Companions 2024 research show Clinicians in the USA are aware but not currently using Gen AI with a clear need for guidance and hand holding. This is the state of all businesses and sectors, we are in the discovery phase of the next industrial revolution sized at 11.9\$ billion USD by 2030 for Healthcare alone.

The building blocks of successful Gen AI adoption will rely on 3 key pillars:

**Value creation:** Being clear on what value will this new technology give me, my stakeholders and my organization

**Maturity state:** The technological and cultural maturity (to embrace change) of the organisation including company core values

**Confidence in the use cases:** assessment of where Gen AI can make the most impact at scale

For Clinicians, the use case and proof of concept will be key to drive greater adoption and the peer-to-peer learning will be the way to scale this change. We need to work with Heads of departments, all Clinicians at the forefront of digital health (including key healthcare practitioners such as nurses and pharmacists) to help enable this change.



Reena Sooch  
Partner, Head of Digital Strategy  
Day One Strategy



## Collaboration for Gen AI success

“The ClinicAI Companions report offers a revealing glimpse into how physicians feel about new technologies in healthcare. Insights from our frontline medical professionals emphasize the need for collaboration among providers, hospitals and clinics, and government entities to address the challenges, explore the possibilities, and establish the necessary safeguards for the safe implementation of Gen AI, all aimed at enhancing patient care without compromising medical practitioners.”

## Key Takeaways

The data from the study shows clinicians, even though acutely aware of Gen-AI developments are still skeptical and somewhat distrustful of the implementation of Gen AI in direct patient-care.

However key areas where Gen AI can help the most, if it's effectively implemented, are:

**Policies and patient and clinical communication.**

**Reducing massive amounts of administrative burden clinical burnout**

**Building trust through data, research and patient-care studies**



Arti Bedi Pullins  
President and Chief Healthcare Officer  
at QuestionPro

# About our contributors



## Reena Sooch

Partner, Head of Digital Strategy  
at Day One Strategy

Reena serves as Partner and Head of Digital Strategy at Day One, a women-led global strategy and insights advisory firm with headquarters in Manhattan and London.

With over 16 years of experience, she specializes in transforming healthcare through digital innovations, guiding payers, pharmaceuticals, and tech giants towards embracing digital therapeutics and omnichannel solutions. Her work ranges from pioneering early-stage innovation to enhancing market presence for new digital health solutions.

Currently focused on Large Language Models (LLMs) and Generative AI, Reena is at the forefront of the next wave of healthcare disruption. Beyond her professional achievements, Reena is passionately committed to merging technology with aging and advocating for universal healthcare access, ensuring equitable and comprehensive care for all.

[CONTACT REENA](#)



## Arti Bedi Pullins

President and Chief Healthcare Officer  
at QuestionPro

Arti is an entrepreneur with over 25 years of leadership in business strategy, product innovation, and sector growth within the Healthcare, HealthTech, and Wellness industries.

Arti has architected and led on over a dozen technology companies to significant success, utilizing deep market insights to foster brand engagement and adoption. Artis' entrepreneurial spirit led her to found Pundit Consultanz, a healthcare innovation consultancy that notably merged with QuestionPro in 2023.

In her role as President and Chief Healthcare Officer at QuestionPro, Arti oversees the strategic direction and commercial operations, emphasizing the integration of Generative AI, Machine Intelligence, and data analytics across healthcare and life sciences.

[CONTACT ARTI](#)

# About our contributors



**PhD MHS Patricia N. Mechael** with over 30 years of global digital health experience, co-founded HealthEnabled and leads the Global Digital Health Monitor. A Senior Associate Professor at Johns Hopkins, she's recognized for her role in digital health innovation, notably receiving the Johns Hopkins University Knowledge for the World Distinguished Alumnus Award. [Connect with Dr. Mechael](#)



**Dr. Michael Housman** with 15 years at the forefront of AI and human psychology, has led tech initiatives across various industries, from HR to fraud detection. His work, recognized in top publications and academic circles, leverages his Ph.D. from The Wharton School and A.B. from Harvard. [Connect with Dr. Housman](#)



**Pin Chin Kwok** transitioning from banking to healthcare, has spent over 8 years pioneering personalized, tech-enabled health solutions. With a global perspective, she has led teams and crafted innovative models in Startup, MedTech, and Health Insurance sectors, enhancing care access and addressing gaps in healthcare delivery. [Connect with Pin](#)



**Dr Hemalee Patel** with nearly 12 years as an internal medicine physician, now serves as Senior Medical Director at One Medical, focusing on Chronic Care Management and Clinical Design. A behavioral science enthusiast and advocate for value-based care, she integrates lifestyle medicine into population health, aiming to prevent chronic diseases through evidence-based practices. [Connect with Dr. Patel](#)

## Methodology

This online survey was conducted by the QuestionPro Research Services team on February 19, 2024. A total of 501 adults completed the survey. The modeled error estimate for this survey is plus or minus 4 percentage points at a 95% confidence.

## About Day One Strategy

Bringing together technology and human intelligence to drive actionable insights, Day One Strategy is a global strategy, data, and insights firm specializing in healthcare. With a team of healthcare experts, the firm empowers healthcare organizations to navigate the complexities of launching new breakthrough treatments in medicine and digital solutions. For more information about Day One Strategy, please visit: <https://www.dayonestrategy.com/>

## About QuestionPro

Founded in 2006, QuestionPro is a global provider of online survey and research services that help companies make better decisions through data. Our fully integrated online platform includes surveys, research & insights, customer experience (CX) and workforce/employee experience software. We additionally offer polling, journey mapping, employee 360s, and data visualization. Our clientele ranges from small businesses to Fortune 100 companies, who rely on us for insights about customers, employees, and the marketplace. With offices in the US, Mexico, Europe, Canada, Japan, the United Arab Emirates, and India, our customers have 24/7 access to highly trained support specialists and engineers. More information is available at [www.questionpro.com](http://www.questionpro.com).