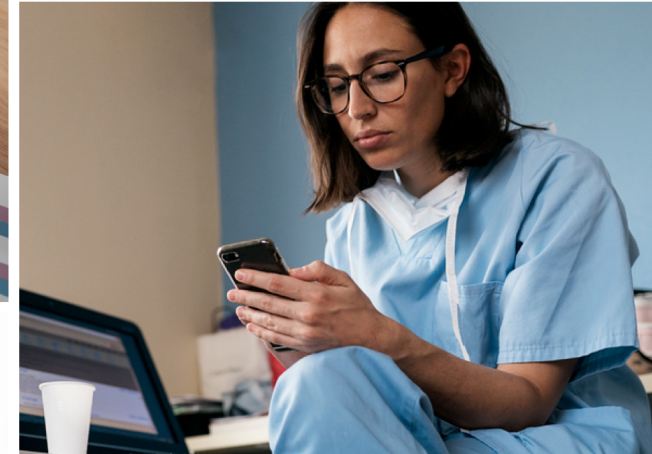
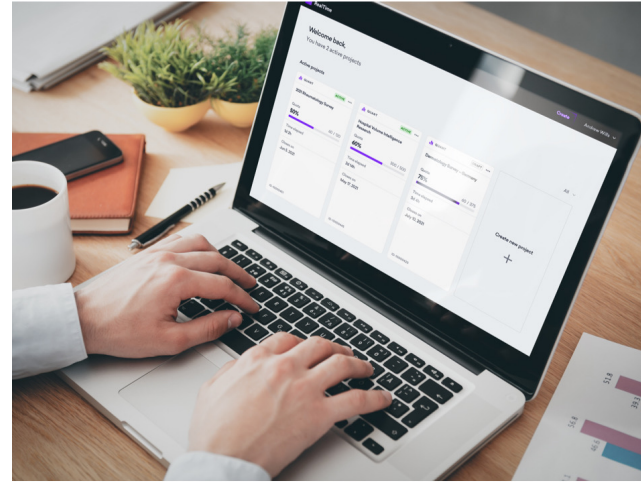
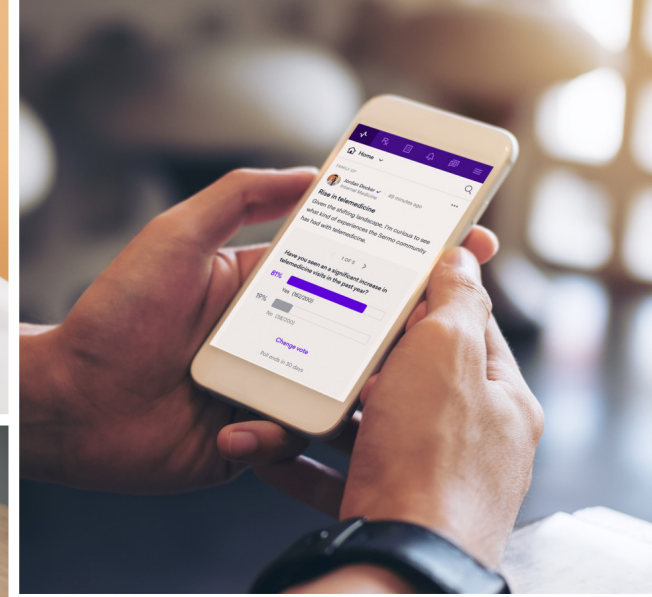


HCP SENTIMENT STUDY PART 14

HCP Perspectives on Artificial Intelligence (AI) in a Data-Driven World

sermo



Report Objectives

Goal: Gain a better understanding of how physicians use and perceive Artificial Intelligence in their personal and professional lives and the resulting implications for insights professionals



Part 1: Understand general AI usage trends, familiarity, and trust among physicians – both personally and professionally



Part 2: Explore physician perspectives on AI applications specifically in medical market research activities



Part 3: Deep dive into what many in the industry consider the top application: AI in data analysis

Research sample overview

Report insights are fueled by Sermo's proprietary RealTime technology, used to survey n=500 active survey takers to participate in a 5-minute quantitative online survey. The survey was fielded from February 19-27, 2024.

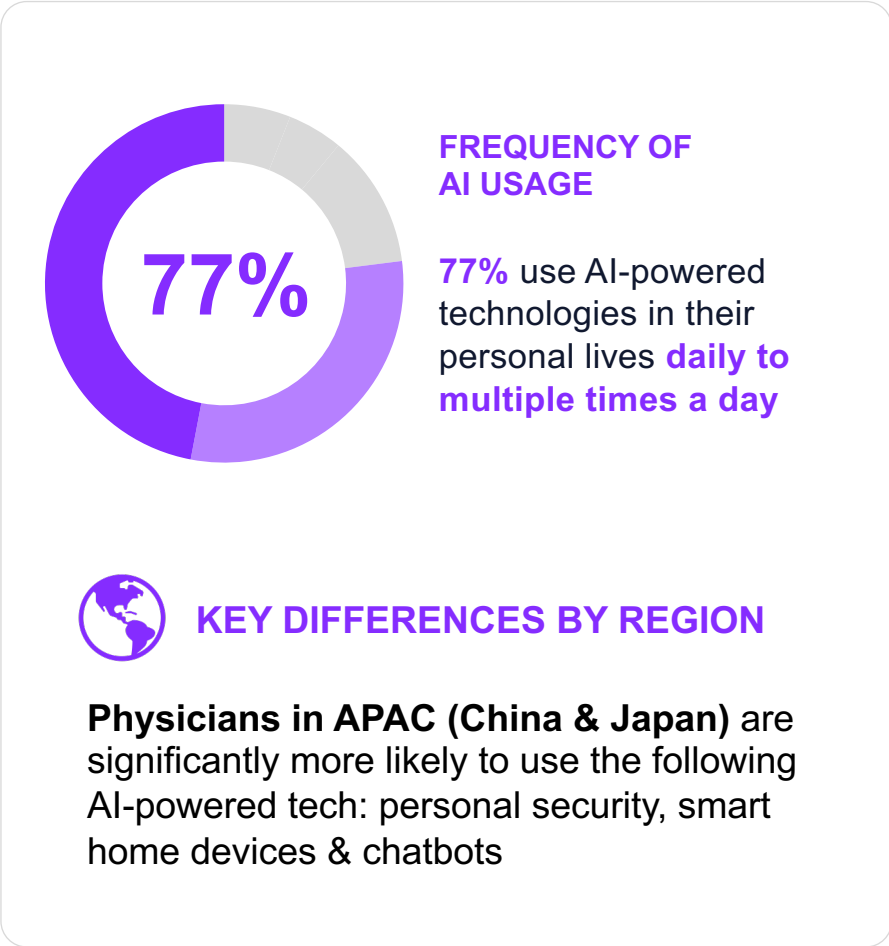
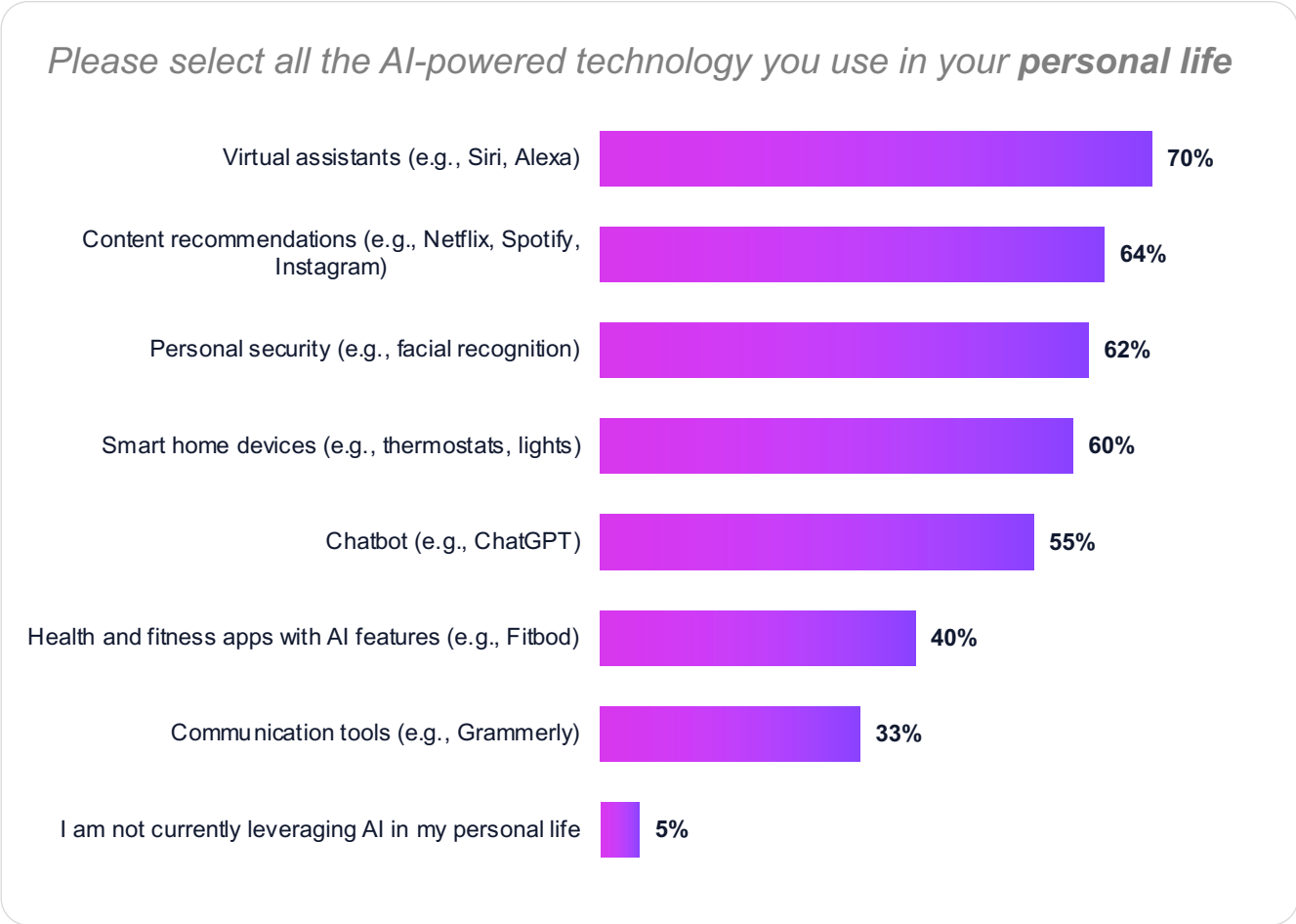
| REGION | SAMPLE |
|-----------------------------|------------|
| North America (US & Canada) | 201 |
| EU5 | 199 |
| APAC (Japan/China) | 100 |
| Total | 500 |

| SPECIALTY GROUP | SAMPLE |
|-----------------|------------|
| PCP | 243 |
| Oncology | 75 |
| Cardiology | 61 |
| Dermatology | 39 |
| Endocrinology | 31 |
| Neurology | 30 |
| Pediatrics | 21 |
| Total | 500 |

Part 1: Physicians' Perspectives on AI for Personal & Professional Use



95% of physicians report using AI-powered technologies in their personal lives – more than three quarters say they use it at least daily



Personal usage of AI-powered technology cut by region & specialty

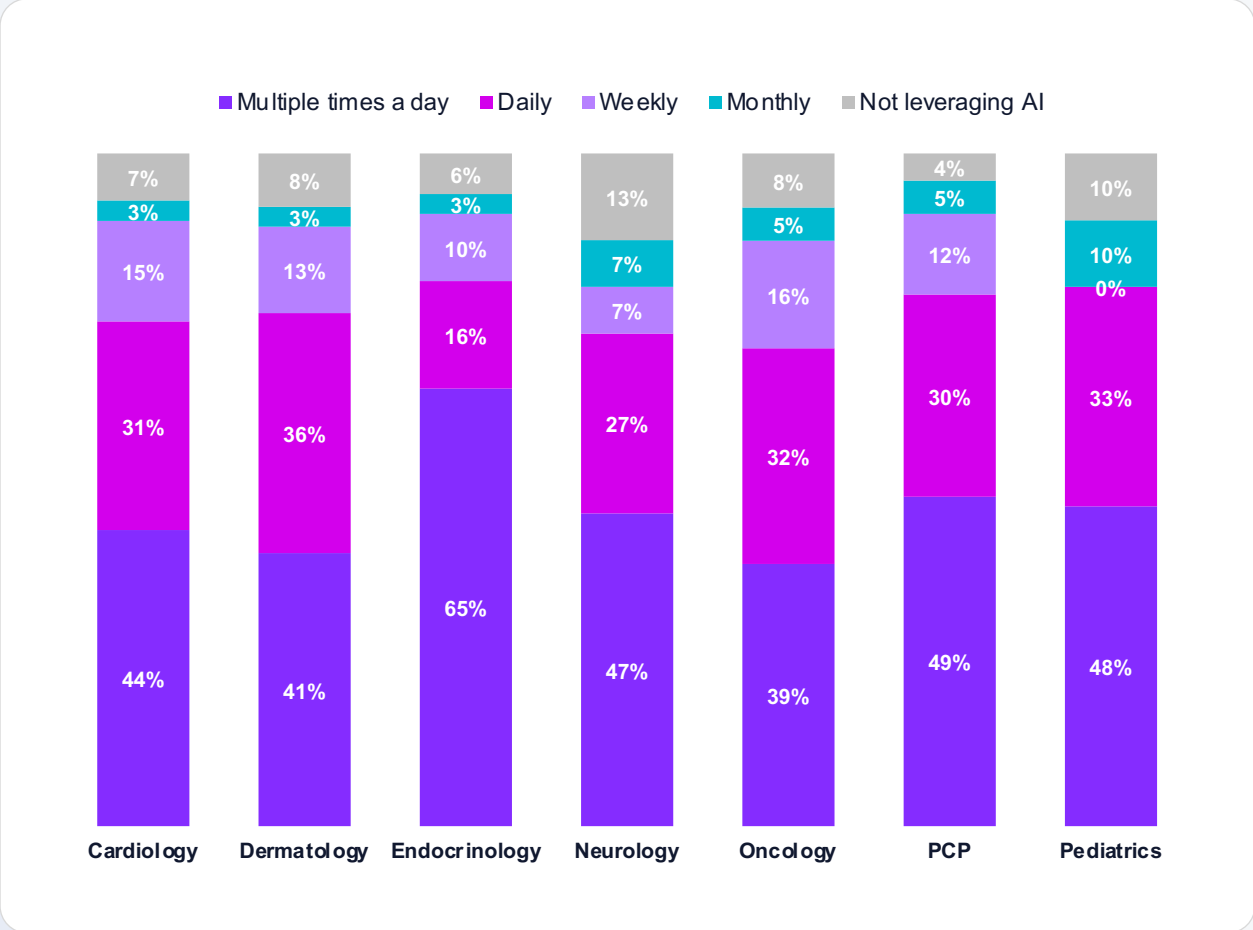
Please select all the AI-powered technology you use in your *personal life*

| | REGION | | | SPECIALTY | | | | | | |
|--|---------|-------|-------|------------|-------------|---------------|-----------|----------|-------|------------|
| | US & CA | EU | APAC | Cardiology | Dermatology | Endocrinology | Neurology | Oncology | PCP | Pediatrics |
| | n=201 | n=199 | n=100 | N=61 | N=39 | N=31 | N=30 | N=75 | N=243 | N=21 |
| Virtual assistants | 69% | 69% | 73% | 75% | 64% | 74% | 67% | 71% | 70% | 62% |
| Content recommendations | 58% | 73% | 57% | 57% | 69% | 61% | 60% | 60% | 66% | 67% |
| Personal security | 57% | 62% | 71% | 61% | 69% | 77% | 50% | 65% | 59% | 67% |
| Smart home devices | 50% | 64% | 72% | 59% | 59% | 84% | 53% | 56% | 60% | 57% |
| Chatbot | 43% | 59% | 70% | 51% | 44% | 65% | 60% | 55% | 56% | 52% |
| Health & fitness apps with AI features | 27% | 52% | 45% | 38% | 41% | 52% | 20% | 49% | 40% | 38% |
| Communication tools | 25% | 35% | 49% | 36% | 13% | 52% | 33% | 40% | 32% | 33% |
| I am not currently leveraging AI in my personal life | 7% | 2% | 6% | 5% | 5% | 6% | 7% | 7% | 4% | 10% |

● Significantly higher than Global at 95% confidence level
 ● Significantly lower than Global at 95% confidence level

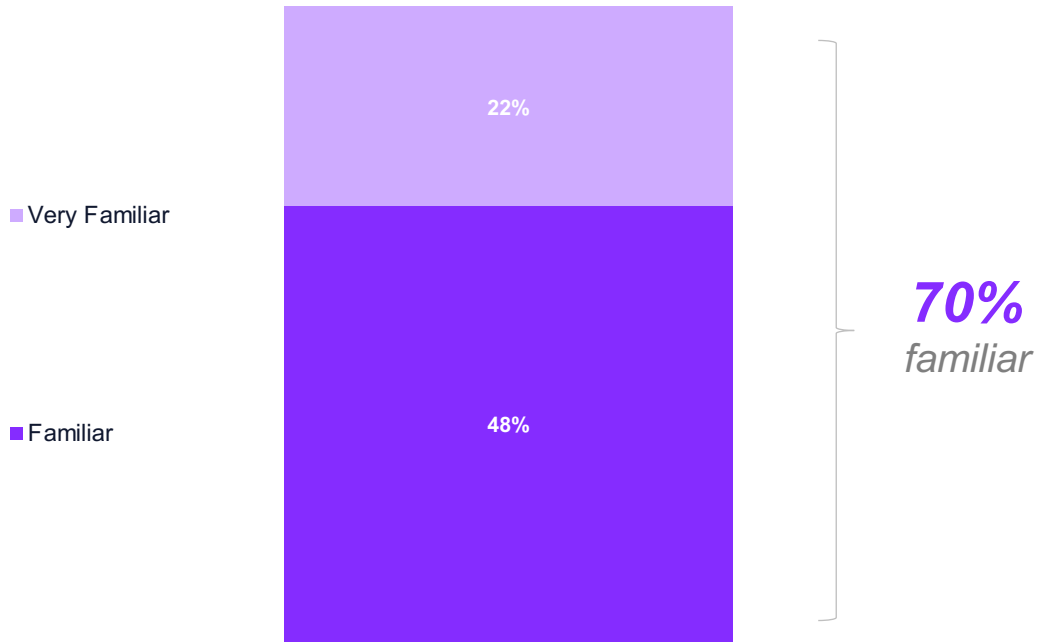
Frequency of usage by region & specialty

How often would you say you are leveraging AI-powered technology in your *personal life*?



71% of surveyed physicians are familiar with AI-powered technologies that support day-to-day activities of HCPs

On a scale of 1-5, how familiar are you with AI-powered technologies that support your day-to-day activities in your **professional life** as a healthcare provider?

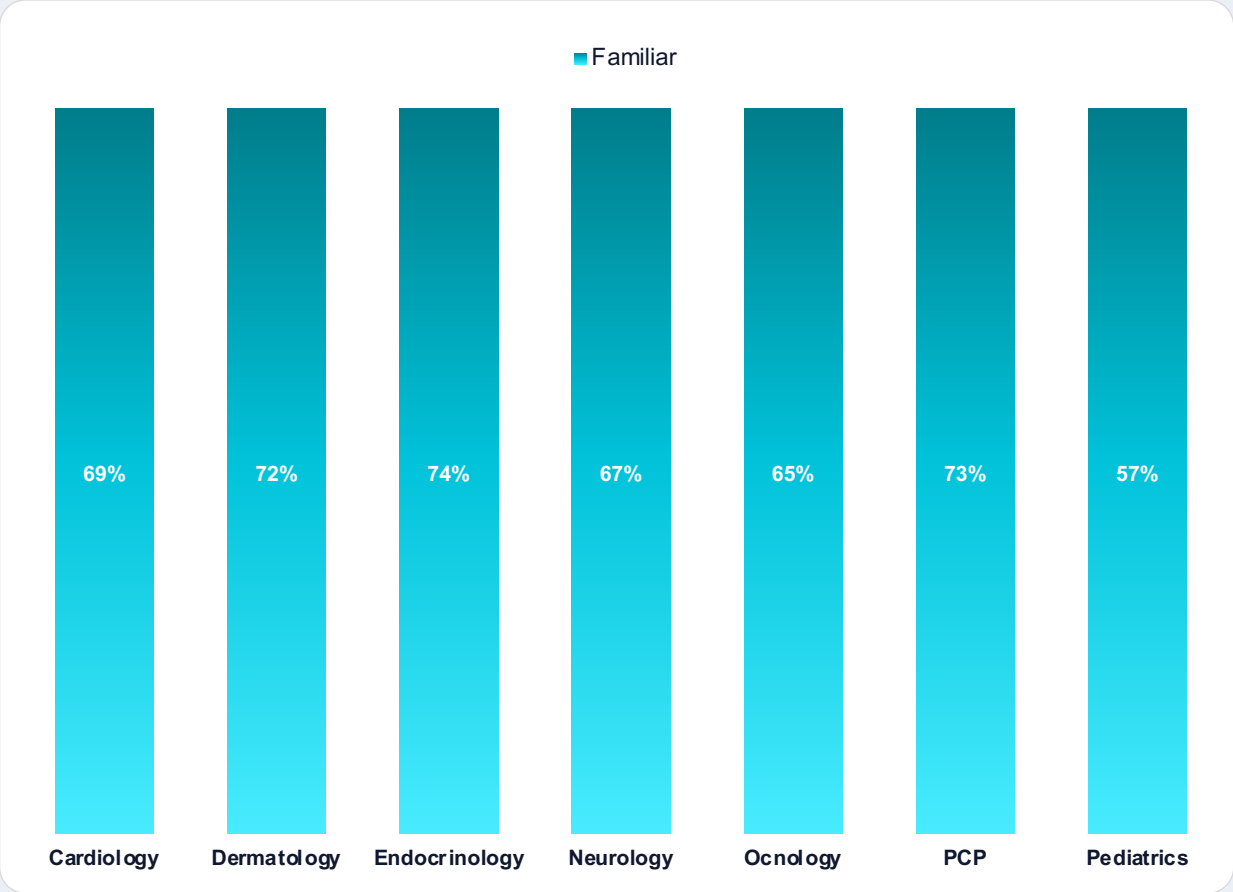
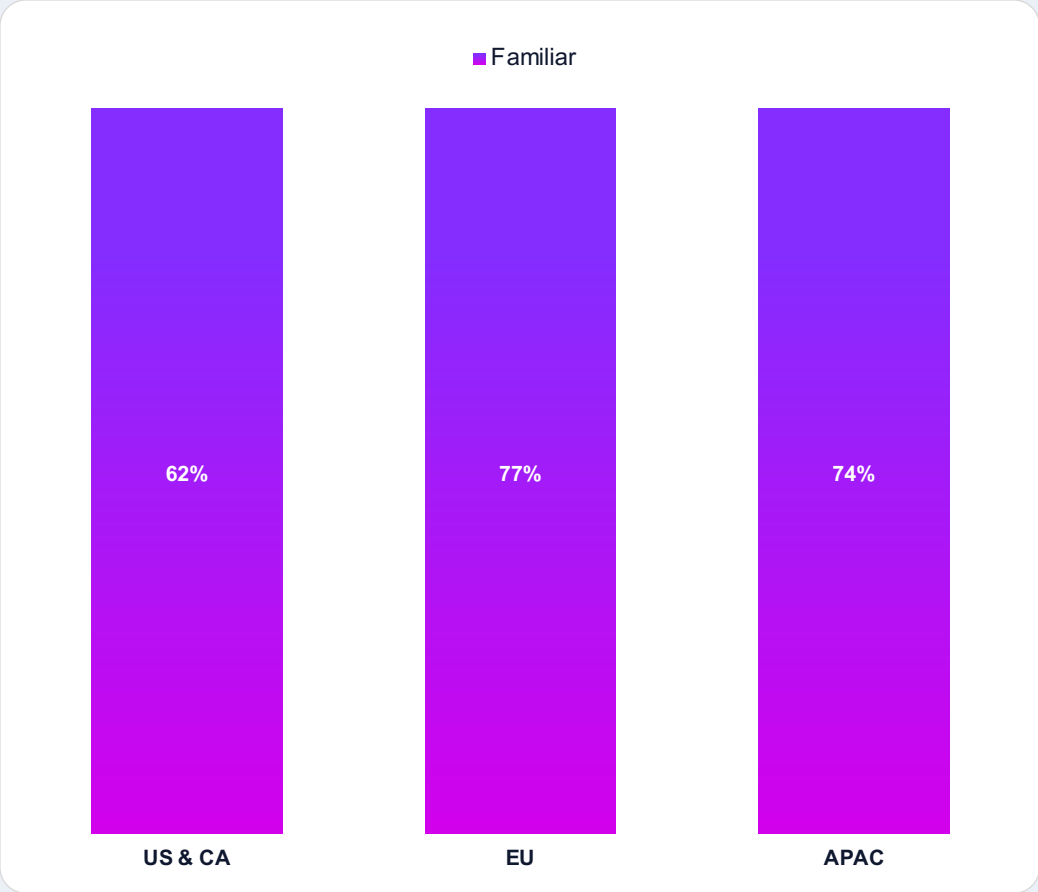


KEY DIFFERENCES BY REGION

- **Physicians in the EU (78%) show higher familiarity** with AI-powered technologies.
- **20% of US physicians report being unfamiliar** with AI-powered technologies.

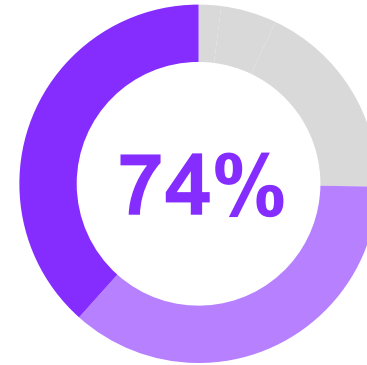
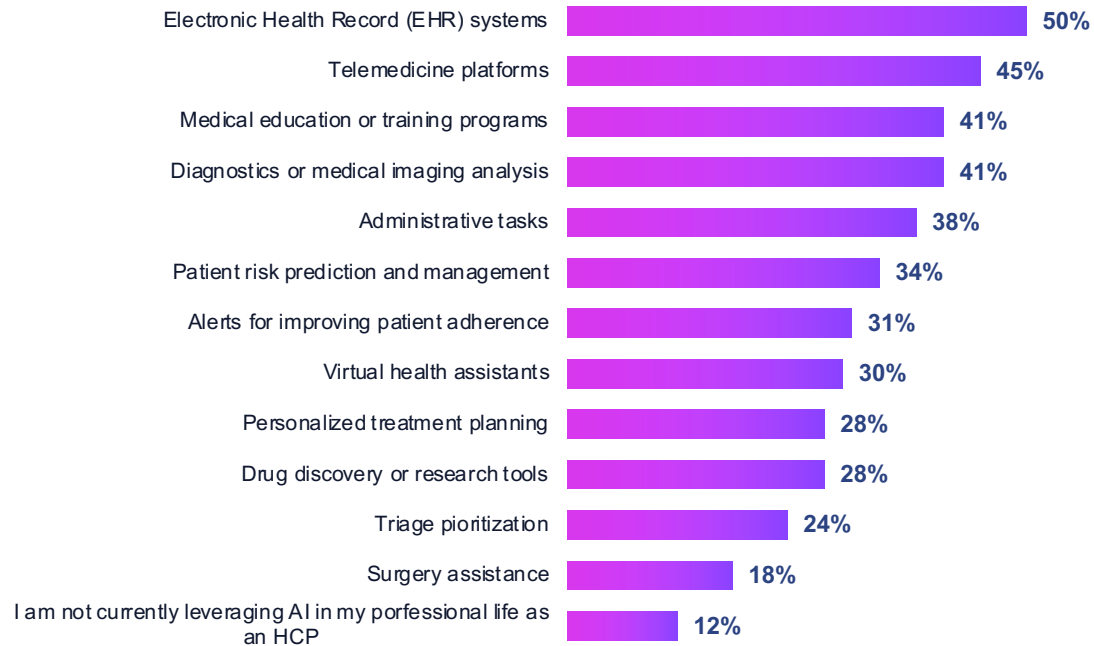
Familiarity with AI-powered technologies cut by region & specialty

On a scale of 1-5, how familiar are you with AI-powered technologies that support your day-to-day activities in your **professional life** as a healthcare provider?



Close to 90% of physicians are using AI-powered tech in their professional lives; EHRs, telemedicine platforms & medical education are most common

Please select all of the ways you are currently leveraging AI-powered technologies in your **professional life as a healthcare provider**.



FREQUENCY OF AI USAGE

74% use AI-powered technologies in their professional lives **daily to multiple times a day**



KEY DIFFERENCES BY REGION

- Physicians in China & Japan report higher usage of AI-powered EHR systems (62% vs. global average of 50%)
- EU physicians report higher usage of AI-powered telemedicine platforms (51% vs. global avg of 45%)

Professional usage of AI-powered technology cut by region & specialty

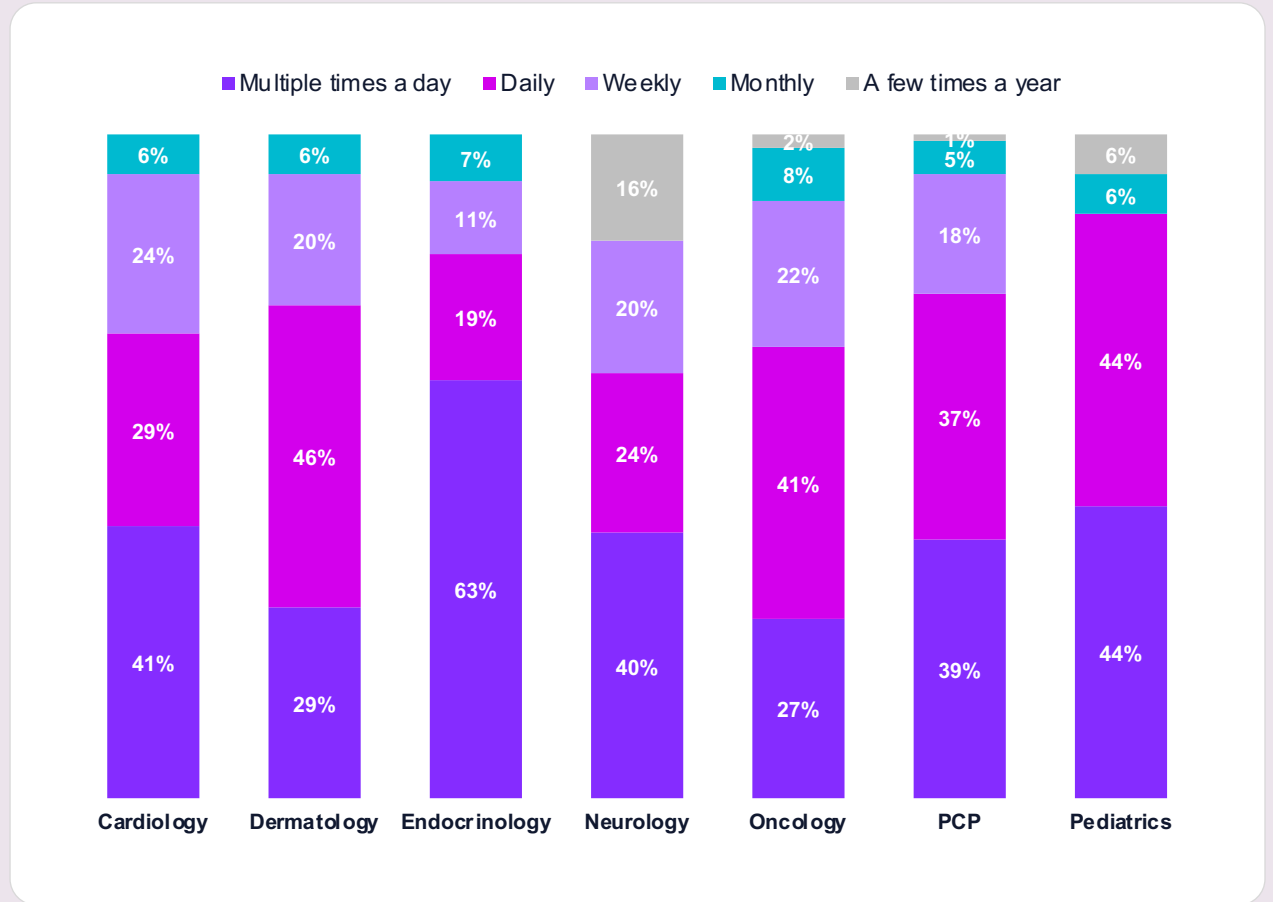
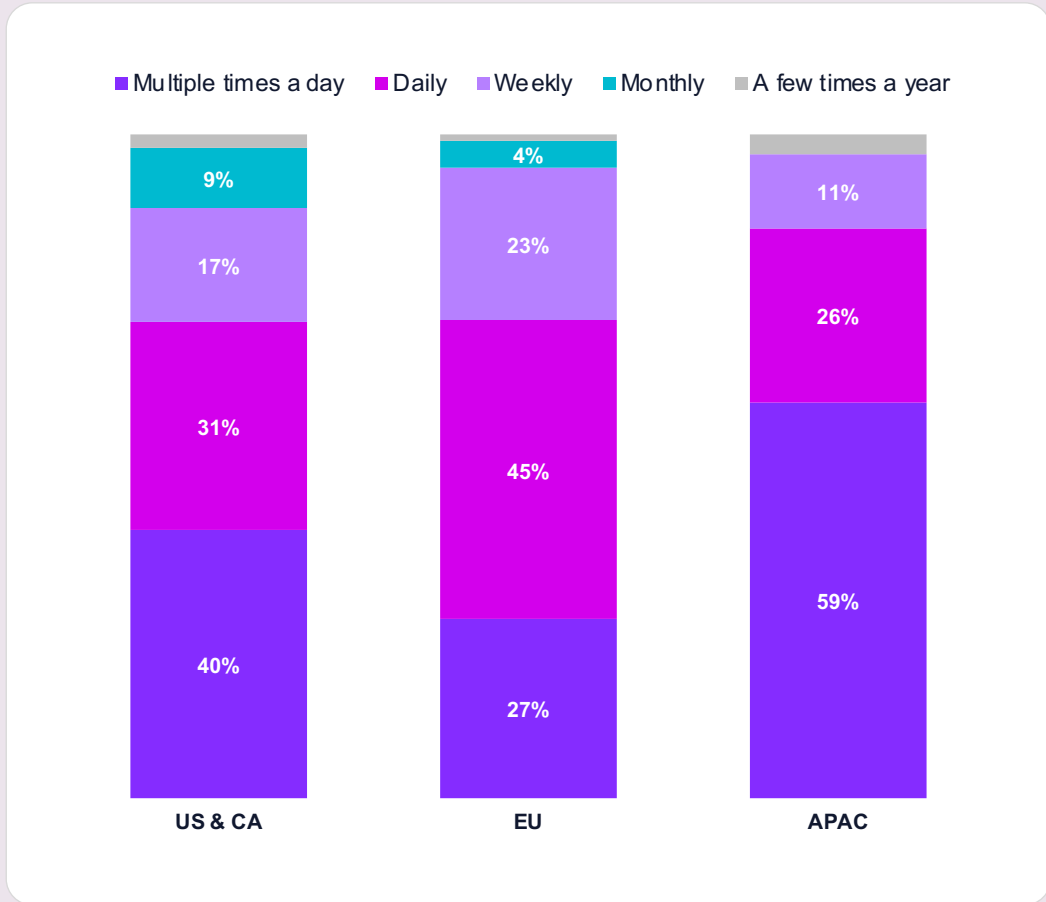
Please select all of the ways you are currently leveraging AI-powered technologies in your *professional life as a healthcare provider*.

| | REGION | | | SPECIALTY | | | | | | |
|---|---------|-------|-------|------------|-------------|---------------|-----------|----------|-------|------------|
| | US & CA | EU | APAC | Cardiology | Dermatology | Endocrinology | Neurology | Oncology | PCP | Pediatrics |
| | n=201 | n=199 | n=100 | N=61 | N=39 | N=31 | N=30 | N=75 | N=243 | N=21 |
| Electronic Health Record (HER) systems | 55% | 38% | 62% | 41% | 23% | 58% | 50% | 43% | 56% | 67% |
| Telemedicine platforms | 42% | 51% | 39% | 41% | 36% | 61% | 37% | 41% | 47% | 43% |
| Medical education or training programs | 36% | 46% | 41% | 34% | 38% | 52% | 30% | 40% | 43% | 43% |
| Diagnostics or medical imaging analysis | 26% | 48% | 55% | 46% | 46% | 42% | 37% | 40% | 40% | 38% |
| Administrative tasks | 31% | 41% | 47% | 25% | 38% | 48% | 60% | 25% | 41% | 43% |
| Patient risk prediction and management | 23% | 40% | 46% | 34% | 23% | 52% | 23% | 36% | 36% | 24% |
| Alerts for improving patient adherence | 22% | 37% | 37% | 36% | 23% | 45% | 37% | 20% | 33% | 29% |
| Virtual health assistants | 21% | 36% | 39% | 28% | 18% | 48% | 27% | 27% | 32% | 33% |
| Personalized treatment planning | 19% | 29% | 43% | 20% | 26% | 55% | 23% | 29% | 27% | 33% |
| Drug discovery or research tools | 18% | 35% | 33% | 20% | 23% | 26% | 30% | 35% | 28% | 33% |
| Triage prioritization | 12% | 30% | 34% | 23% | 21% | 42% | 13% | 24% | 24% | 19% |
| Surgery assistance | 5% | 22% | 36% | 18% | 13% | 26% | 10% | 24% | 18% | 14% |
| Currently not leveraging AI | 14% | 9% | 13% | 16% | 10% | 13% | 17% | 16% | 8% | 14% |

● Significantly higher than Global at 95% confidence level
 ● Significantly lower than Global at 95% confidence level

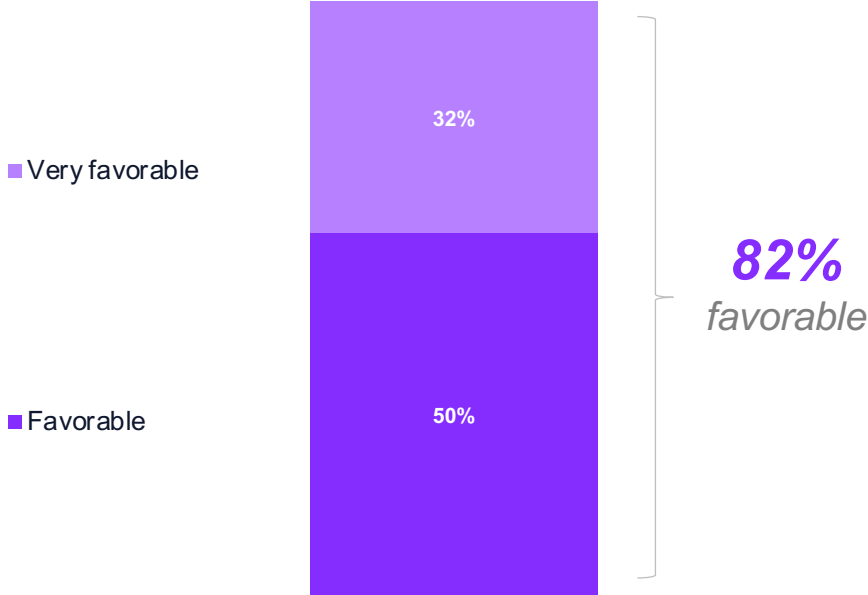
Healthcare provider frequency of usage by region & specialty

How often would you say you are leveraging AI-powered technology in your professional life as a healthcare provider?

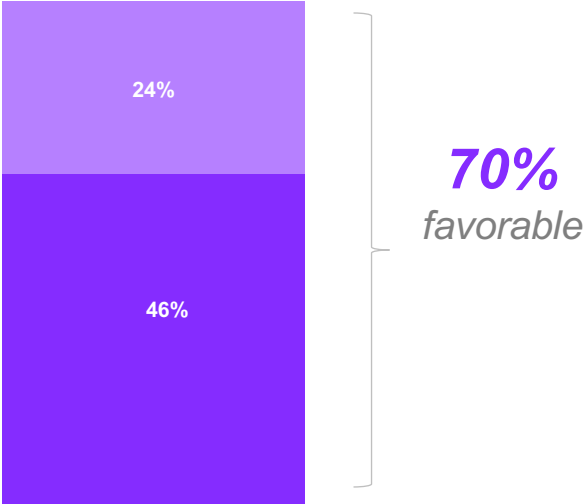


Physicians have more a favorable opinion towards AI-powered technology in their personal versus professional lives (82% vs 70%)

On a scale of 1-5, how favorable is your opinion of AI-powered technology that you use in your **personal life**?

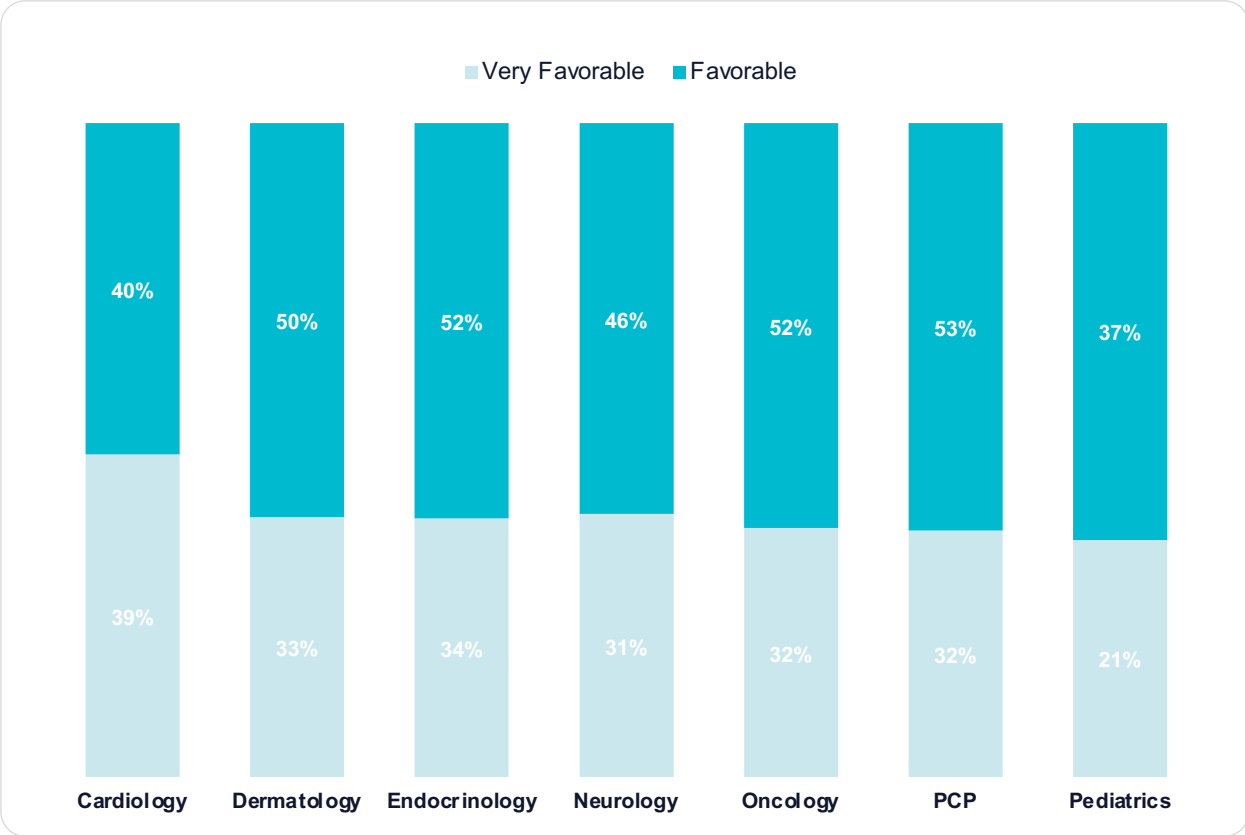
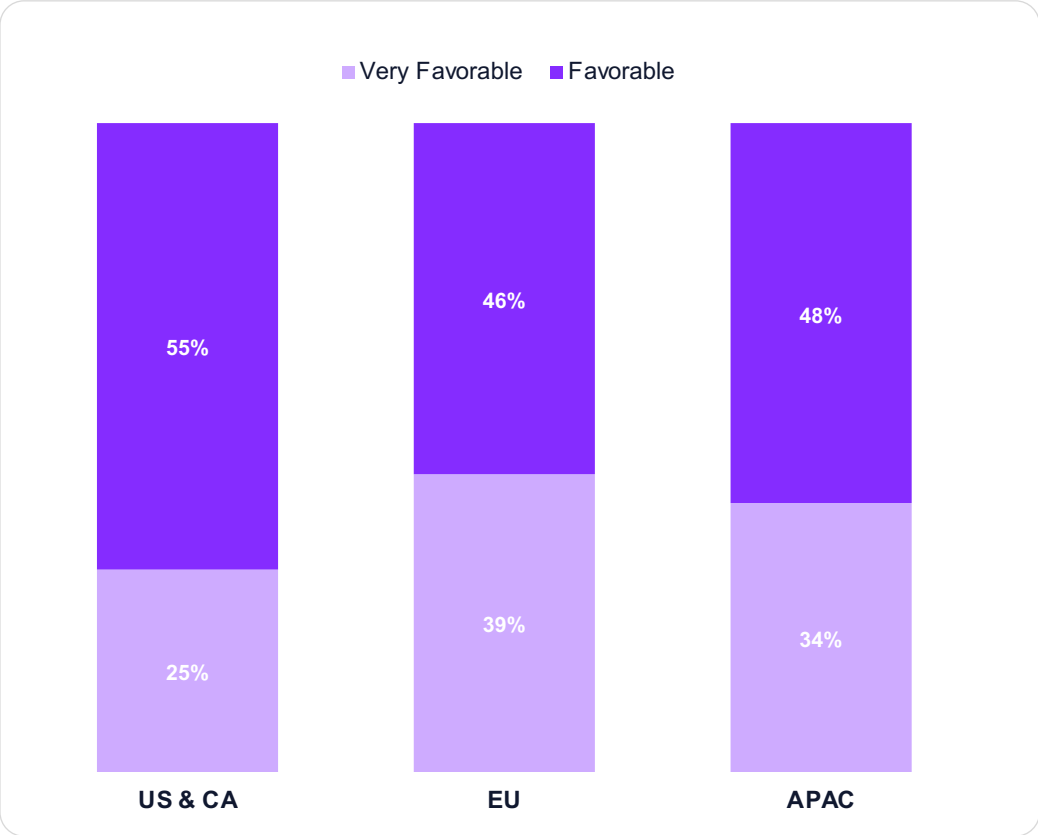


On a scale of 1-5, how favorable is your opinion of AI-powered technologies in your **professional life as a healthcare provider**?



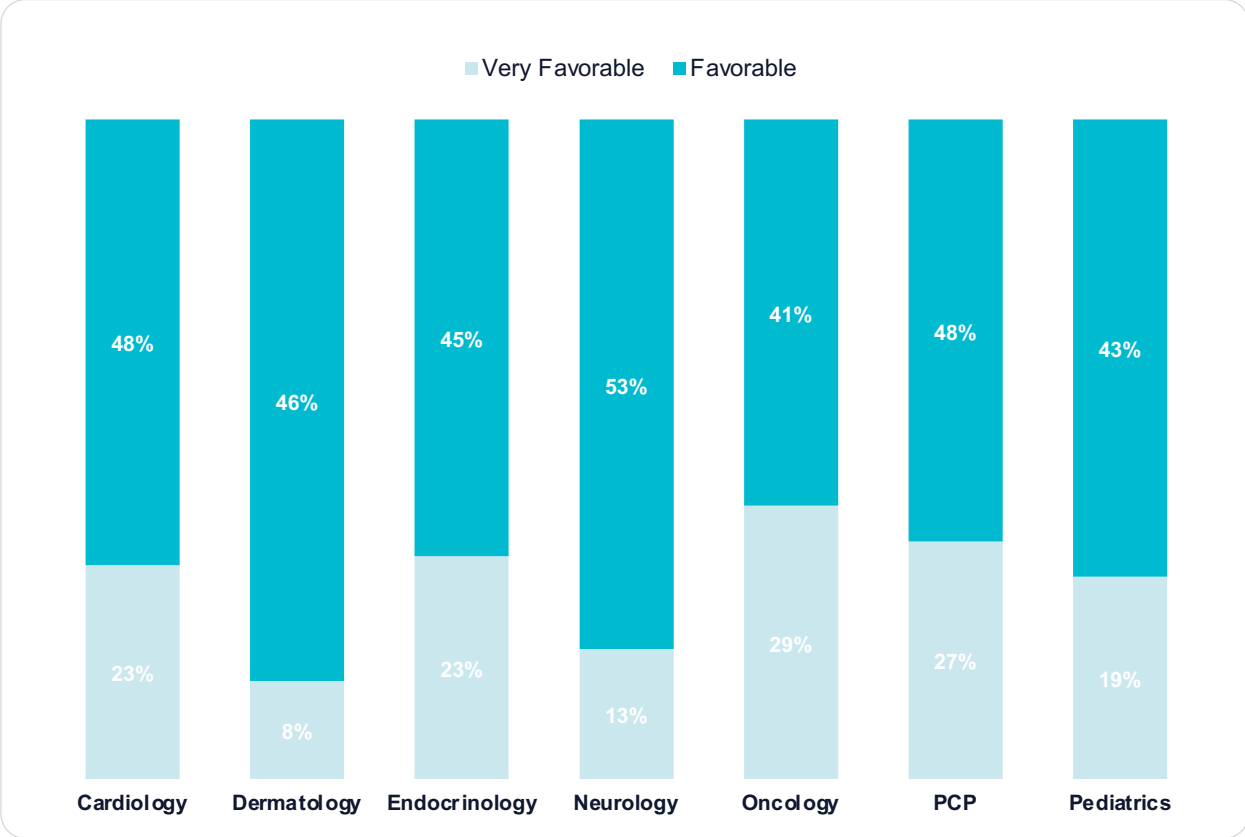
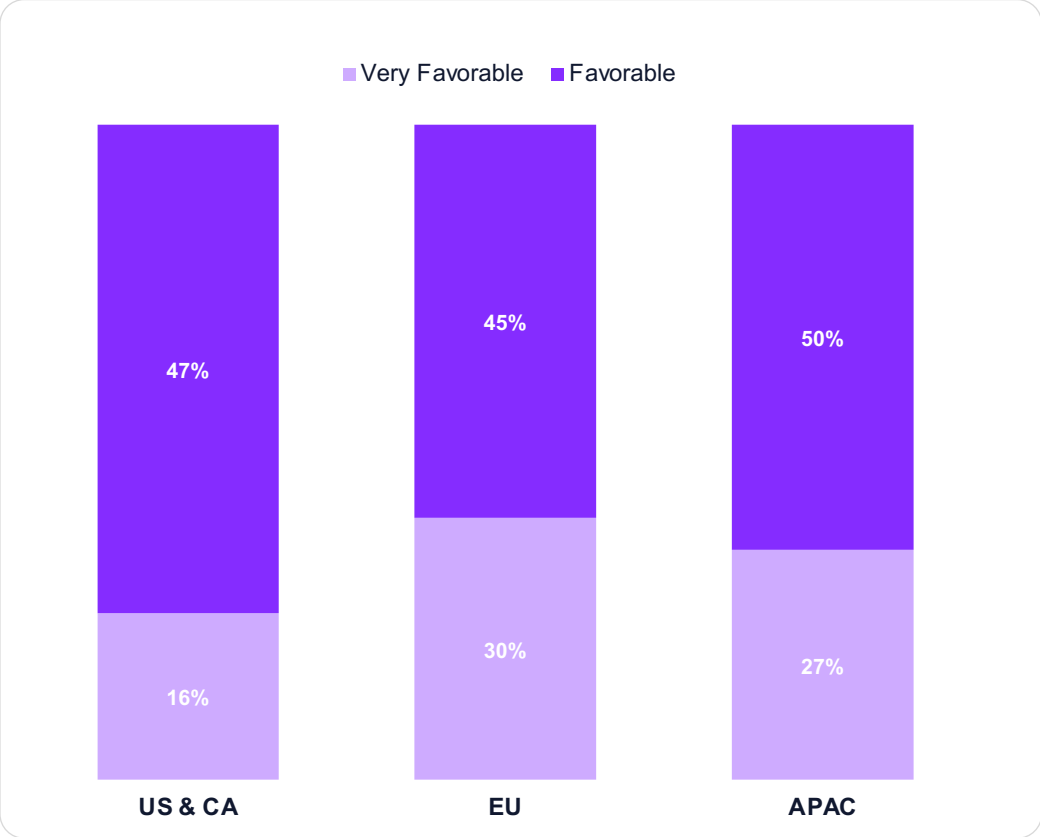
US & CA physicians show a more favorable opinion towards AI-powered technology than EU & CA

On a scale of 1-5, how favorable is your opinion of AI-powered technology that you use in your *personal life*?



In a professional environment Neurologists & PCPs show a more favorable opinion towards AI-powered technologies than other specialties

On a scale of 1-5, how favorable is your opinion of AI-powered technologies in your *professional life as a healthcare provider?*



Bonus insights: US healthcare leaders share their perspectives on AI implementation in their hospital/health systems

45% of US health system/hospital executives report they are actively following trends in AI and machine learning...

Yet, only 25% have implemented AI/machine learning in their organization

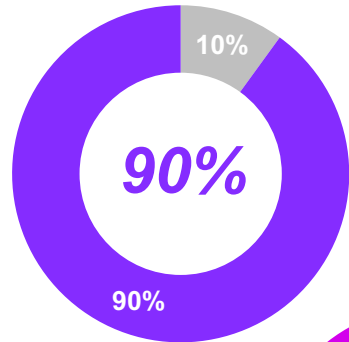
| | Current AI Integration | Forecasted AI Integration in the Next 5 Years |
|--------------------------------------|------------------------|---|
| Electronic health records management | 23% | 71% |
| Predictive analytics | 20% | 71% |
| Virtual Health Assistance | 13% | 64% |
| Medical Imaging | 21% | 62% |

Part 2:

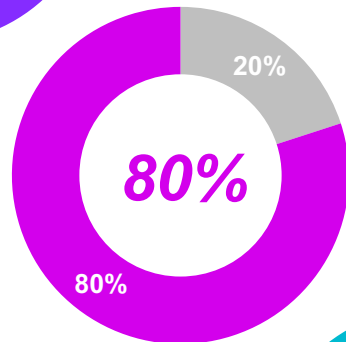
Physicians' Perspectives on AI in Market Research



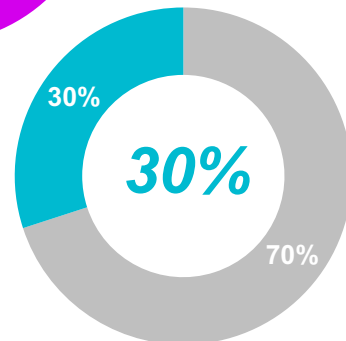
Before diving into the findings, let's explore how the industry is embracing (and bracing for) AI in market research



AI will have a **significant impact** on the MR Industry over the next 5 years



AI will have a **positive impact** on the MR Industry



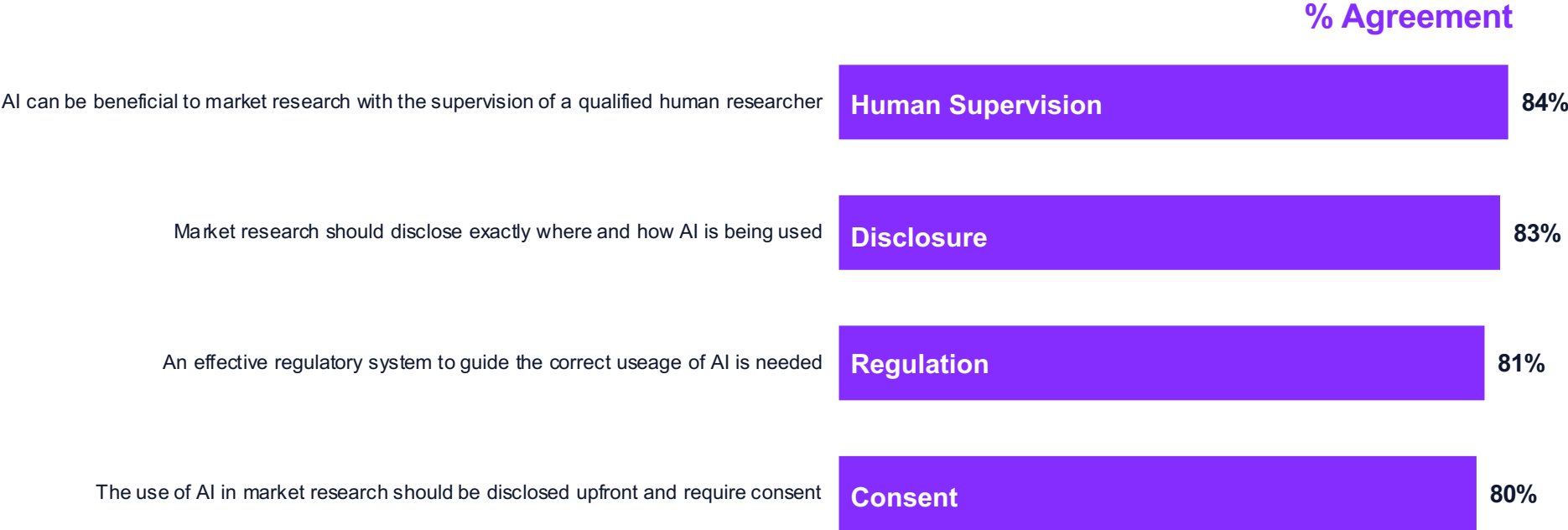
Confident I know what the **impact is going to look like**

What Insights Professionals are saying...



There is strong sentiment among the physician community about AI in market research, mostly related to disclosure and regulation

On a scale of 1-5, please tell us how much you agree or disagree with the following statements about AI in market research.



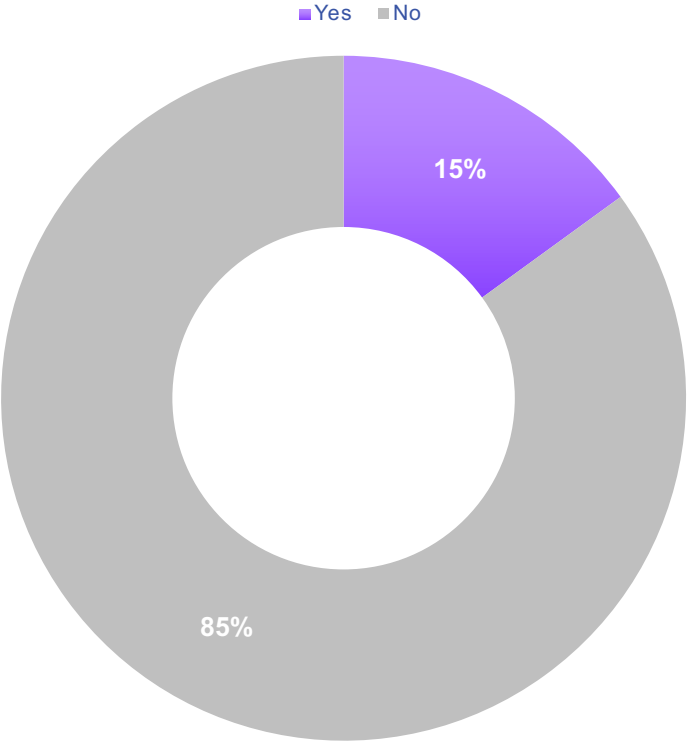
Sentiment towards AI in market research by region & specialty

On a scale of 1-5, please tell us how much you agree with the following statements about AI in market research.

| | REGION | | | SPECIALTY | | | | | | |
|--|---------|-------|-------|------------|-------------|---------------|-----------|----------|-------|------------|
| | US & CA | EU | APAC | Cardiology | Dermatology | Endocrinology | Neurology | Oncology | PCP | Pediatrics |
| | n=201 | n=199 | n=100 | N=61 | N=39 | N=31 | N=30 | N=75 | N=243 | N=21 |
| AI can be beneficial to market research with the supervision of a qualified human researcher | 84% | 83% | 86% | 85% | 77% | 87% | 83% | 87% | 83% | 86% |
| Market research should disclose exactly where and how AI is being used | 90% | 74% | 90% | 85% | 69% | 84% | 87% | 84% | 84% | 90% |
| An effective regulatory system to guide the correct usage of AI is needed | 86% | 75% | 87% | 87% | 69% | 87% | 80% | 79% | 82% | 90% |
| The use of AI in market research should be disclosed upfront and require consent | 88% | 74% | 77% | 82% | 59% | 77% | 80% | 84% | 81% | 95% |

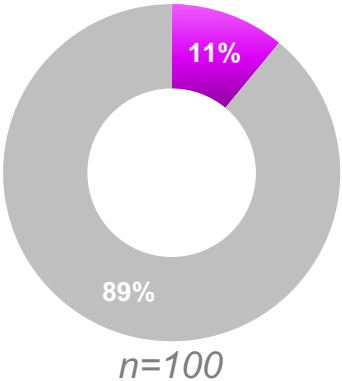
Very few physicians indicate that they have participated in market research that disclosed the use of AI

GLOBAL



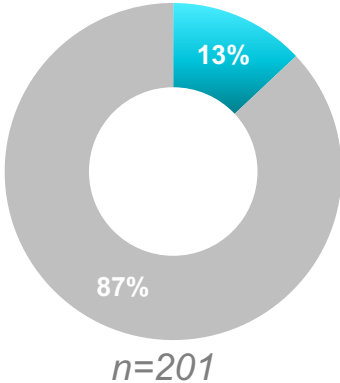
APAC

11% of physicians in China & Japan have participated in market research that disclosed the use of AI



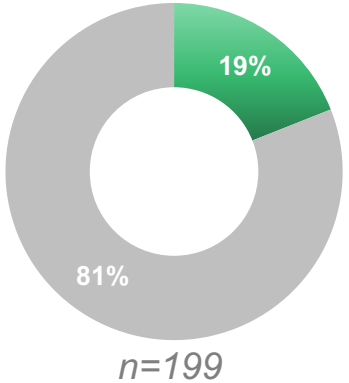
US & Canada

13% of physicians in US & Canada have participated in market research that disclosed the use of AI



EU

19% of physicians in the EU have participated in market research that disclosed the use of AI

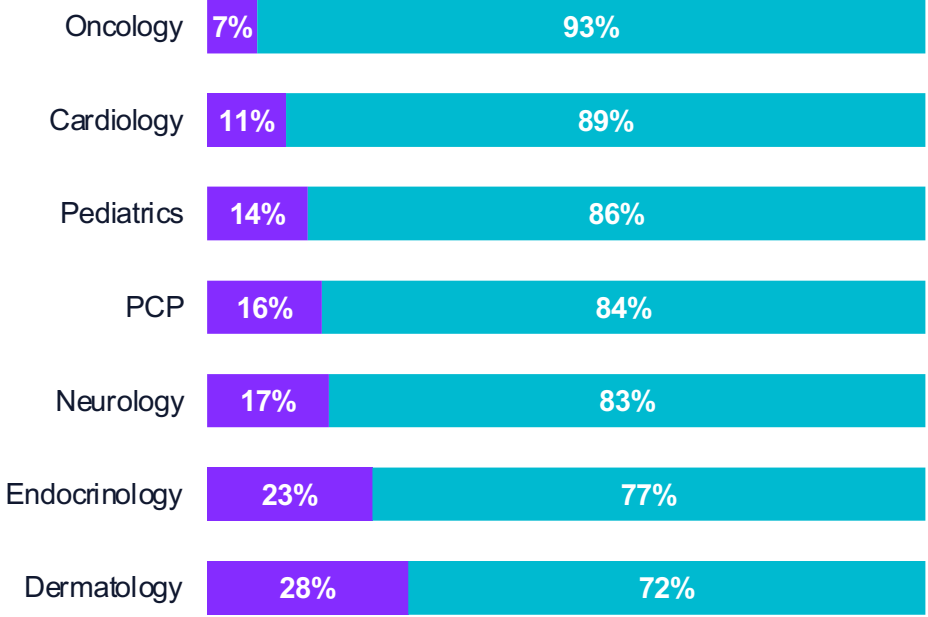


Have you ever participated in market research that disclosed the use of AI in any way (examples: AI-powered data analysis, AI support chatbot)?

Physician participation in market research that disclosed the use of AI by specialty

Have you ever participated in market research that disclosed the use of AI in any way (examples: AI-powered data analysis, AI support chatbot)?

■ Yes ■ No

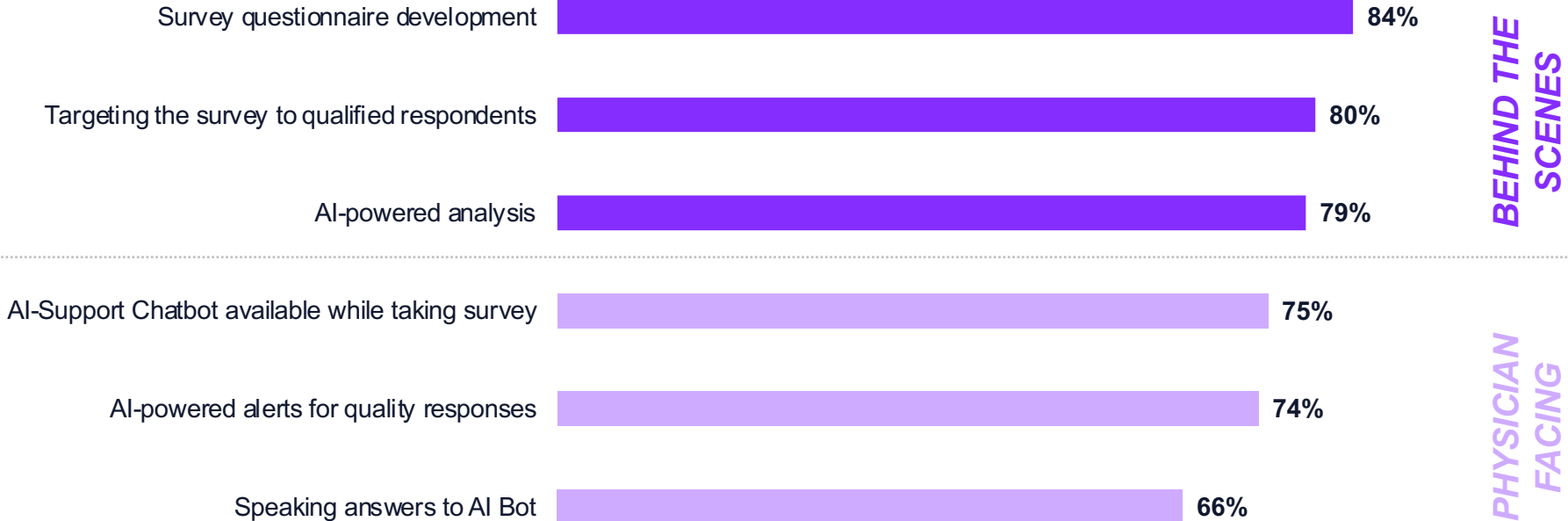


*Source: HCP Sentiment Part 14, February 2024. n=500 physicians worldwide



Physicians are more willing to participate in AI-driven research when the technologies are “Behind-the-Scenes” vs. “Physician-Facing.”

How likely would you be to participate in a market research activity that leveraged AI in one of the following ways?



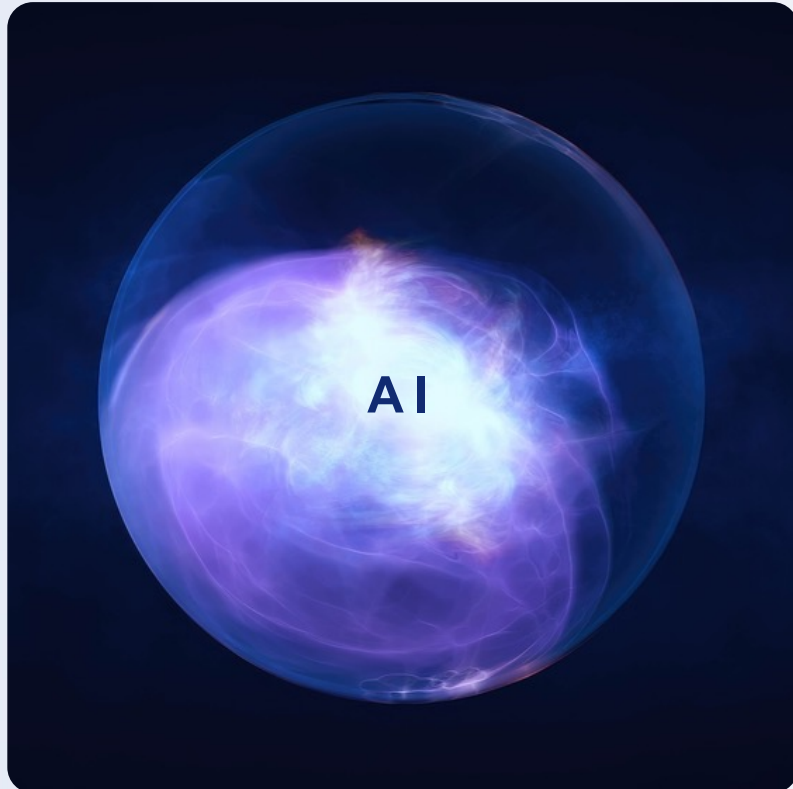
Willingness to participate in AI-driven research by region & specialty

How likely would you be to participate in a market research activity that leveraged AI in one of the following ways?

| | REGION | | | SPECIALTY | | | | | | |
|--|---------|-------|-------|------------|-------------|---------------|-----------|----------|-------|------------|
| | US & CA | EU | APAC | Cardiology | Dermatology | Endocrinology | Neurology | Oncology | PCP | Pediatrics |
| | n=201 | n=199 | n=100 | N=61 | N=39 | N=31 | N=30 | N=75 | N=243 | N=21 |
| Survey questionnaire development | 88% | 83% | 78% | 82% | 74% | 94% | 73% | 83% | 87% | 81% |
| Targeting the survey to qualified respondents | 85% | 78% | 73% | 79% | 59% | 87% | 80% | 84% | 81% | 81% |
| AI-powered analysis | 82% | 77% | 77% | 75% | 77% | 74% | 77% | 79% | 82% | 67% |
| AI-Support Chatbot available while taking survey | 78% | 74% | 75% | 82% | 67% | 74% | 70% | 76% | 76% | 86% |
| AI-powered alerts for quality responses | 76% | 74% | 72% | 75% | 56% | 77% | 73% | 72% | 79% | 67% |
| Speaking answers to AI Bot | 69% | 63% | 67% | 67% | 56% | 65% | 67% | 71% | 67% | 62% |

● Significantly higher than Global at 95% confidence level
● Significantly lower than Global at 95% confidence level

Looking into our AI crystal ball: Are spoken surveys the future of healthcare market research?

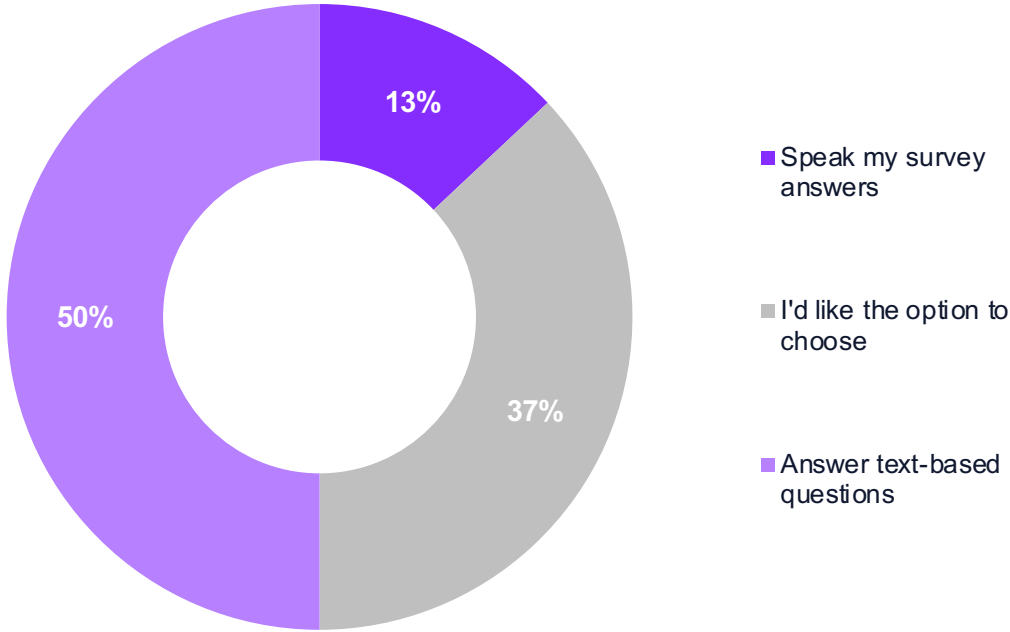


“Having a normal conversation with a speaker on your counter is now a thing. As some of the most striking advancements in AI have come in the form of natural language processing, **it’s just a matter of time until it’s common to have a conversation with your speaker as a survey.**”

Researchers believe that **nearly 1 in 4 surveys will be spoken to a digital assistant within 5 years.** Spoken surveys could capture a quarter of the industry’s text survey market share with a relatively short period of time. But volume doesn’t mean quality, at least not yet.”

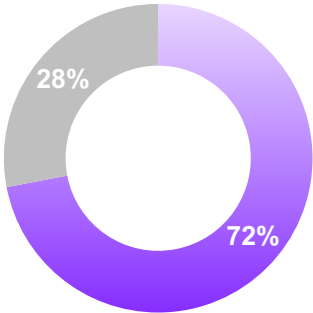
Most physicians don't love the idea of "spoken surveys" but many like knowing they have the option. Is this signaling a disconnect between HCPs and the anticipated trend?

When considering future market research activities, would you generally prefer to speak your survey answers or answer text-based questions?



KEY DIFFERENCES BY REGION

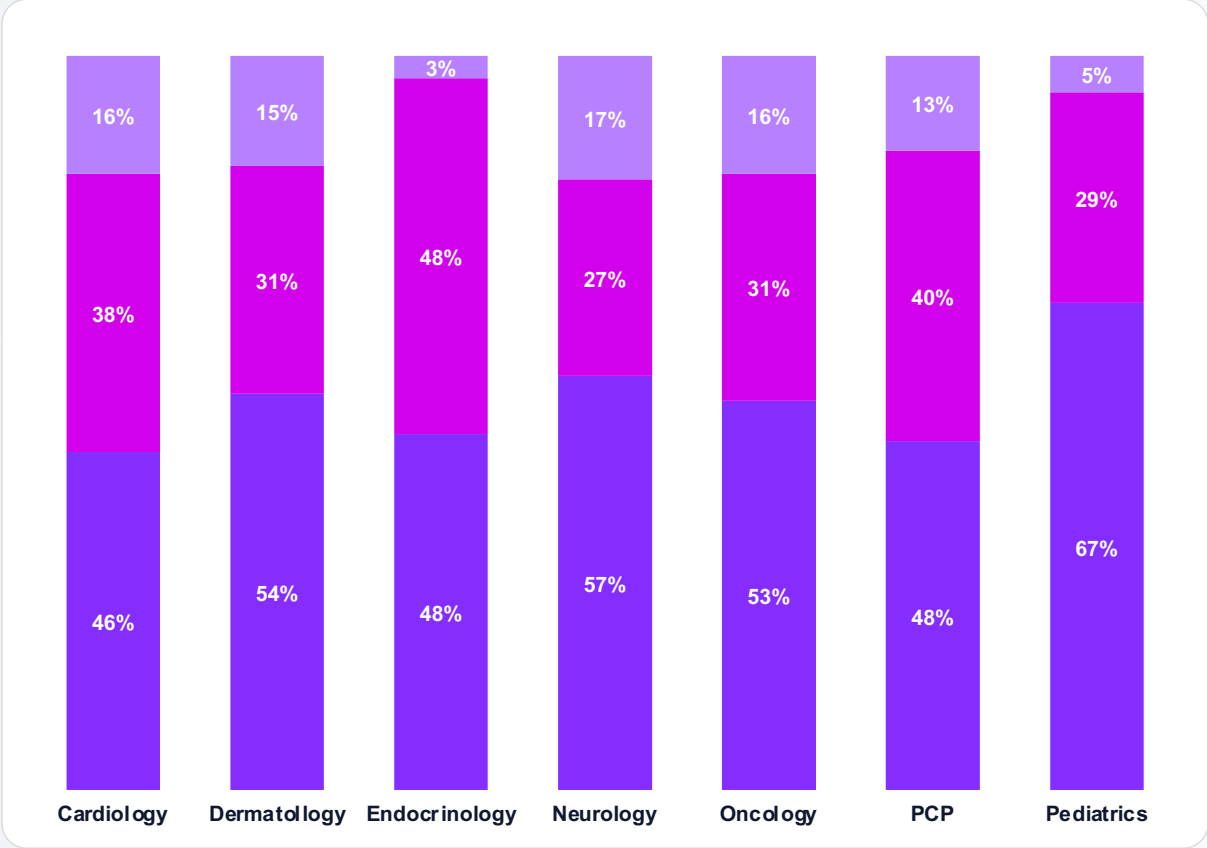
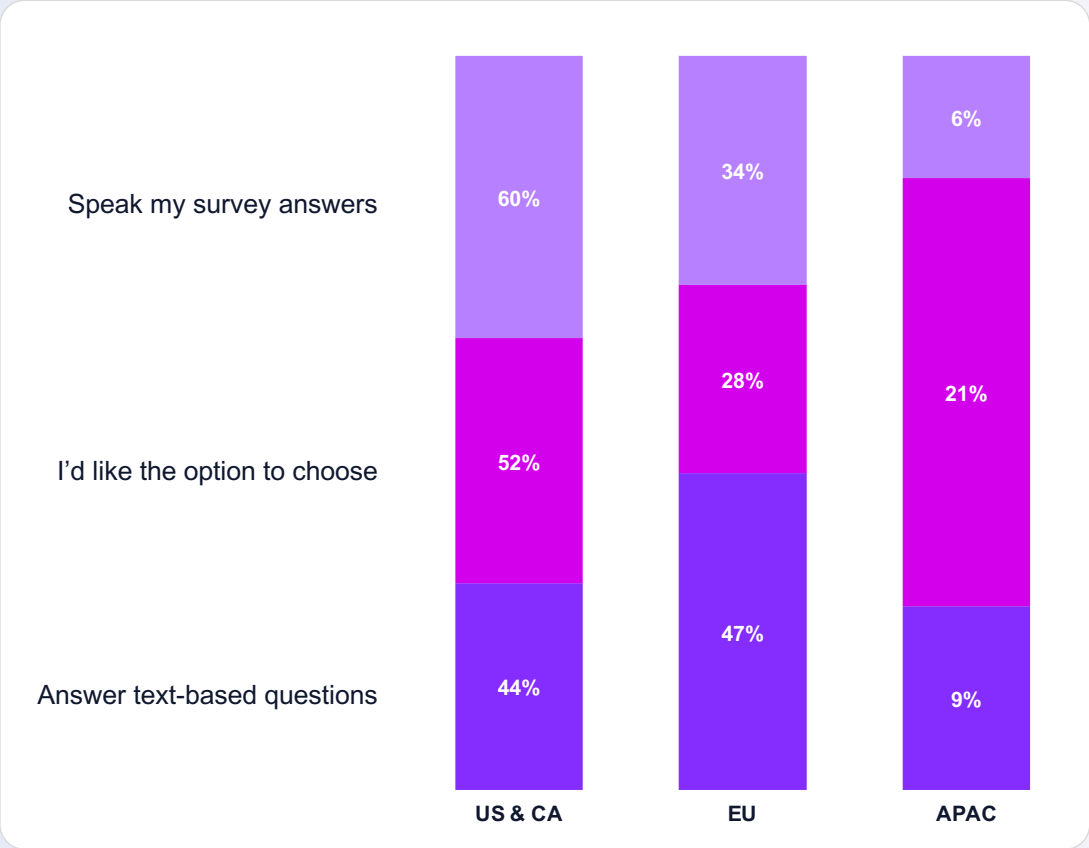
- **Physicians in the EU** are most receptive to speaking answers (21%)
- **Physicians in China & Japan (60%)** are most likely to prefer text
- **Physicians in the US (47%)** are most likely to prefer the option.



AI cannot be a replacement for human subject matter expertise

Spoken answers vs text-based questions by region & specialty

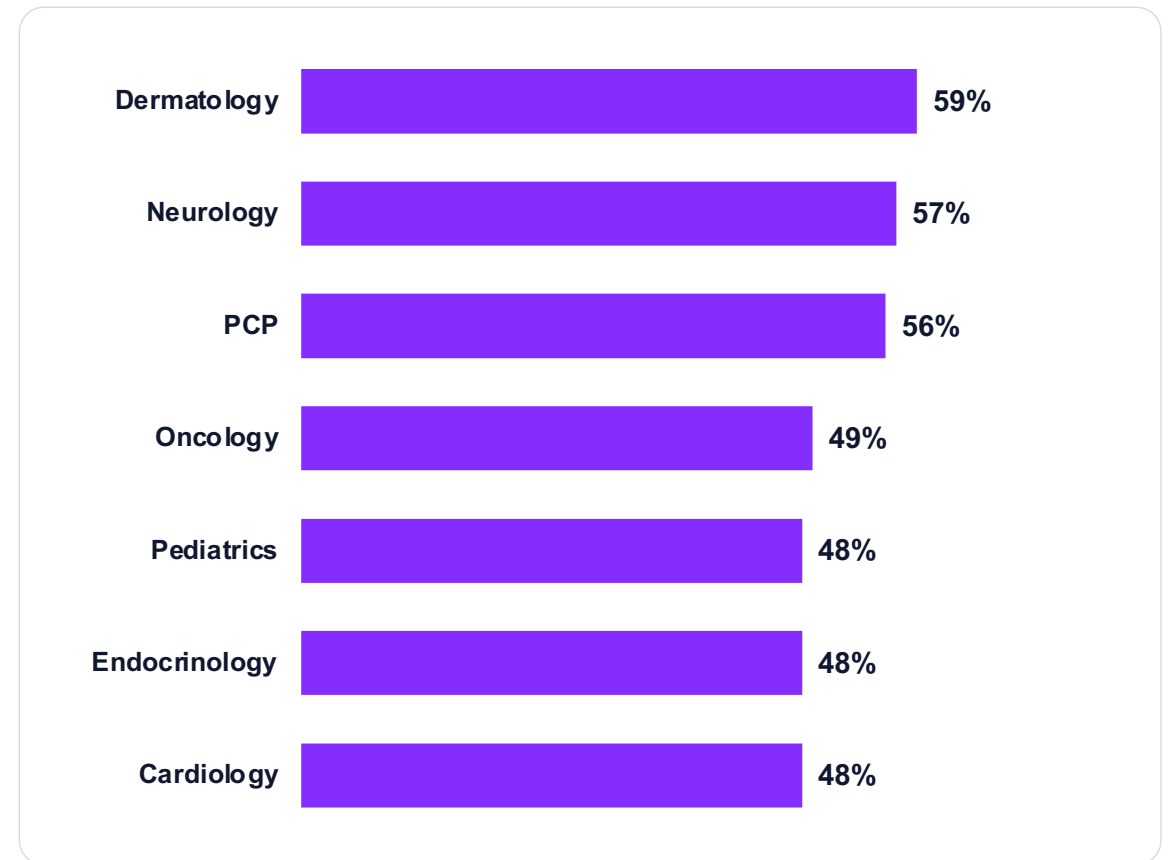
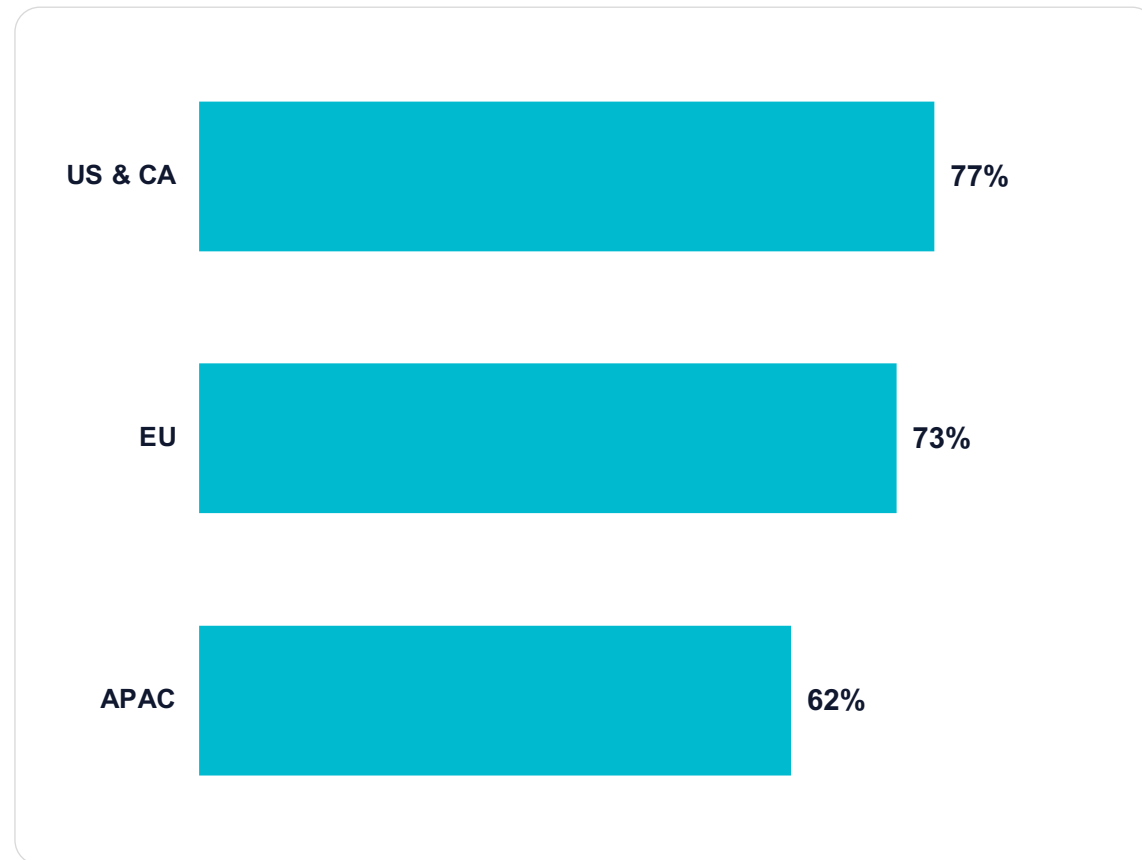
When considering future market research activities, would you generally prefer to speak your survey answers or answer text-based questions?



Physicians agree that AI cannot be a replacement for human subject matter expertise

Q. On a scale of 1-5, please tell us how much you agree with the following statement:

“The moderator’s role as subject matter expert and interviewer in qualitative research cannot be replaced with AI”



Minimized errors are the most exciting AI benefit in market research, while the most common concern is the loss of human touch



COOL

Which of the following **benefits** of AI in market research are you most excited about?

- 1 Minimized errors/mistakes (53%)
- 2 Better incentives/rewards (46%)
- 3 More personalized survey invites (45%)



CONCERNING

Which of the following **challenges** of AI in market research are you most concerned about?

- 1 Loss of human touch (53%)
- 2 Data privacy issues (52%)
- 3 AI hallucinations (47%)

AI benefits in market research by region & specialty

Which of the following benefits of AI in market research are you excited about?

| | REGION | | | SPECIALTY | | | | | | |
|---|---------|-------|-------|------------|-------------|---------------|-----------|----------|-------|------------|
| | US & CA | EU | APAC | Cardiology | Dermatology | Endocrinology | Neurology | Oncology | PCP | Pediatrics |
| | n=201 | n=199 | n=100 | N=61 | N=39 | N=31 | N=30 | N=75 | N=243 | N=21 |
| Minimized errors/mistakes | 51% | 51% | 60% | 49% | 46% | 55% | 50% | 47% | 58% | 43% |
| Better incentives/rewards | 50% | 45% | 44% | 41% | 33% | 45% | 50% | 32% | 53% | 57% |
| More personalized survey invites | 38% | 47% | 57% | 36% | 33% | 52% | 63% | 51% | 44% | 57% |
| Faster development of products/services that better meet my/patients' needs | 35% | 42% | 61% | 44% | 36% | 48% | 57% | 41% | 42% | 43% |
| More engaging research questionnaire/interviews | 39% | 43% | 41% | 46% | 36% | 39% | 33% | 43% | 41% | 48% |
| Instant feedback/technical support | 34% | 35% | 60% | 38% | 33% | 52% | 53% | 40% | 38% | 29% |
| Safeguarding my privacy/security | 36% | 32% | 48% | 36% | 33% | 45% | 47% | 21% | 40% | 33% |
| None | 7% | 1% | 1% | 2% | 3% | 6% | | 5% | 3% | 10% |

● Significantly higher than Global at 95% confidence level
 ● Significantly lower than Global at 95% confidence level

AI concerns in market research by region & specialty

Which of the following challenges of AI in market research are you most concerned about??

| | REGION | | | SPECIALTY | | | | | | |
|---|---------|-------|-------|------------|-------------|---------------|-----------|----------|-------|------------|
| | US & CA | EU | APAC | Cardiology | Dermatology | Endocrinology | Neurology | Oncology | PCP | Pediatrics |
| | n=201 | n=199 | n=100 | N=61 | N=39 | N=31 | N=30 | N=75 | N=243 | N=21 |
| Loss of human touch | 59% | 53% | 43% | 53% | 46% | 46% | 39% | 70% | 56% | 55% |
| Data privacy issues | 56% | 48% | 53% | 52% | 61% | 36% | 61% | 50% | 45% | 53% |
| AI hallucinations | 48% | 43% | 55% | 47% | 46% | 36% | 58% | 53% | 52% | 47% |
| Potential biases in questionnaire development | 40% | 46% | 32% | 41% | 41% | 46% | 32% | 33% | 44% | 41% |
| Overly complex questionnaires | 36% | 30% | 43% | 35% | 34% | 23% | 48% | 43% | 31% | 34% |
| None | 5% | 4% | 1% | 4% | 5% | | 3% | | 7% | 3% |

● Significantly higher than Global at 95% confidence level
 ● Significantly lower than Global at 95% confidence level

Part 3: The Power of AI to Uncover Authentic Insights



The good news: physicians are most comfortable with AI being used for data analysis in Market Research at 79%

On a scale of 1-5, how comfortable are you with the following use cases of AI in market research?



Use cases of AI in market research by region & specialty

On a scale of 1-5, how comfortable are you with the following use cases of AI in market research?

| | REGION | | | SPECIALTY | | | | | | |
|---|---------|-------|-------|------------|-------------|---------------|-----------|----------|-------|------------|
| | US & CA | EU | APAC | Cardiology | Dermatology | Endocrinology | Neurology | Oncology | PCP | Pediatrics |
| | n=201 | n=199 | n=100 | N=61 | N=39 | N=31 | N=30 | N=75 | N=243 | N=21 |
| Data Analysis | 78% | 76% | 85% | 80% | 74% | 90% | 70% | 81% | 78% | 76% |
| Questionnaire development | 82% | 75% | 72% | 79% | 69% | 77% | 83% | 80% | 77% | 71% |
| Personalized incentives/ rewards | 77% | 78% | 75% | 67% | 74% | 74% | 70% | 81% | 80% | 71% |
| Personalized Invites | 78% | 74% | 71% | 67% | 74% | 81% | 60% | 76% | 77% | 86% |
| Open-ended question prompts | 74% | 71% | 61% | 79% | 59% | 58% | 57% | 75% | 72% | 71% |
| Participant support/customer service by AI bots | 57% | 60% | 57% | 66% | 59% | 65% | 43% | 56% | 60% | 43% |
| Interviews conducted by AI bots | 48% | 53% | 58% | 57% | 49% | 58% | 43% | 56% | 51% | 48% |

● Significantly higher than Global at 95% confidence level
 ● Significantly lower than Global at 95% confidence level

Key areas where AI is being used in data analysis



**Data
cleaning**



**Statistical
analysis**

*Tonality, sentiment,
who is saying what*



**Analyzing open-
ended responses**

*Coding, identifying key
themes*



**Making
recommendations**

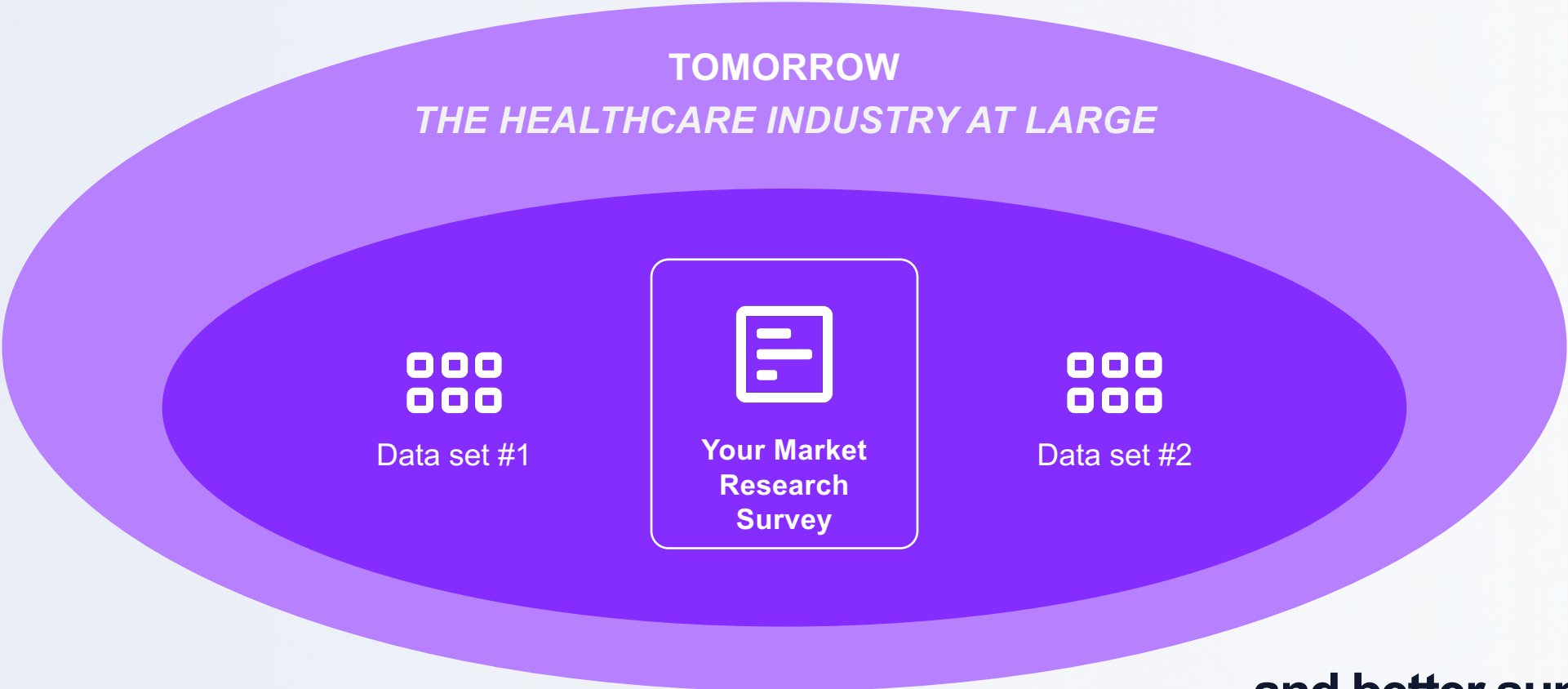
Even with the power of AI, we are still only gaining an understanding within the confines of our questionnaire

TODAY
THE HEALTHCARE INDUSTRY AT LARGE



**Your Market
Research
Survey**

We can use AI to integrate additional data sets and take analysis a step further, providing context around the market research “box”...



...and better support for your marketing efforts!

We promised actionable insights – so here they are!

Now is the time to test AI – it's already a regular part of physicians' day-to-day!

74% use AI-powered tech in their **professional lives daily/multiple times a day**

77% use AI-powered technologies in their **personal lives daily/multiple times a day**

Transparency & choice is key when integrating AI into your practices

Disclose when & where you are using AI – and make it fun!

Provide choice to physicians where possible (e.g. text or spoken answers)

To maintain authenticity, we cannot let AI take the lead!

We should think of AI in the same way as physicians - **a support tool, NOT a replacement**

Thank you!

To learn how you can leverage Sermo's global community of 1.5M+ HCPs to support your healthcare insights and engagement strategy, email us at business@sermo.com

