PolyAI

PolyAI healthcare research report

What do patients really think of voice AI?

Frustration shouldn't be part of the patient experience.

Patients are more likely to encounter clunky automated systems and hold music than a warm welcome when they really need the convenience and second-nature efficiency of the apps and services they use every day.

AI agents are starting to change this. They handle routine tasks so patients can complete intake more easily. The experience quickly becomes one that fits into patients' lives, not the other way around.

While convenience goes a long way, patients also need empathy. They should have the reassurance that, even in moments of uncertainty or urgency, the support they receive feels like a helping hand rather than a barrier.
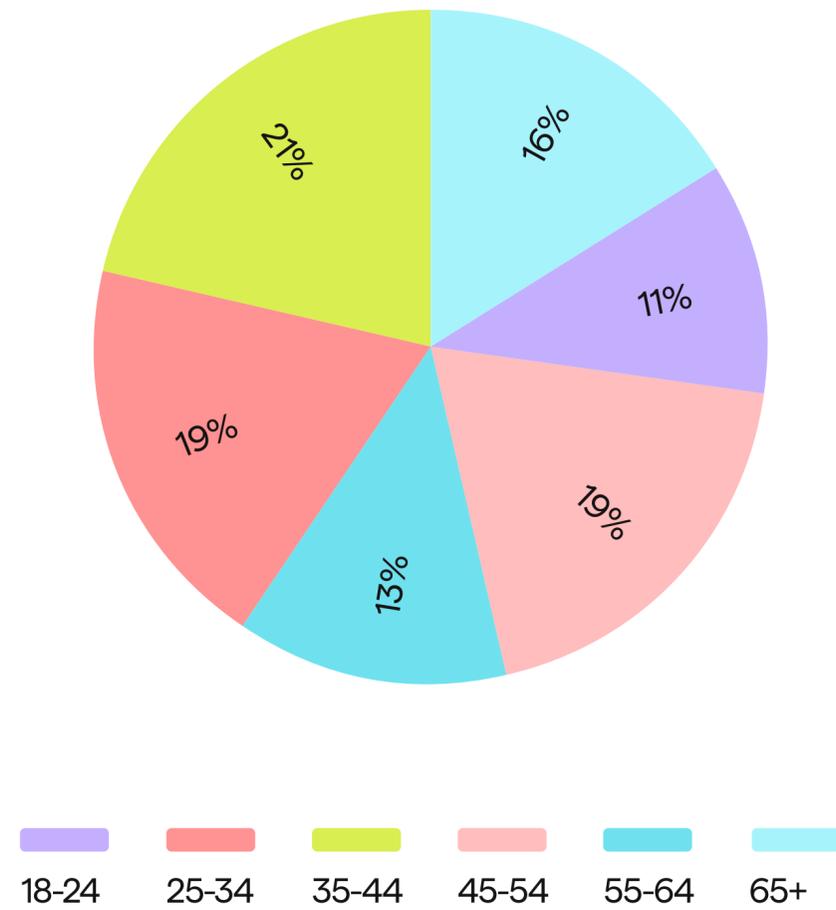
We asked 1,000 patients across the U.S. about their thoughts on intelligent voice AI for patient intake.

Their responses highlight where AI can help and where humans still matter most.
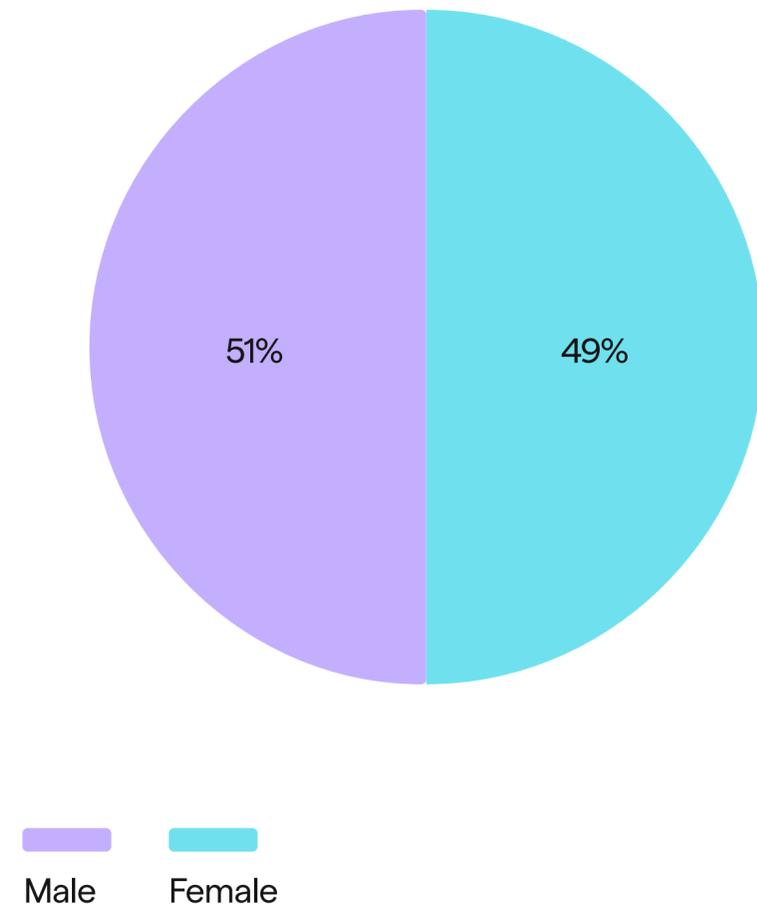
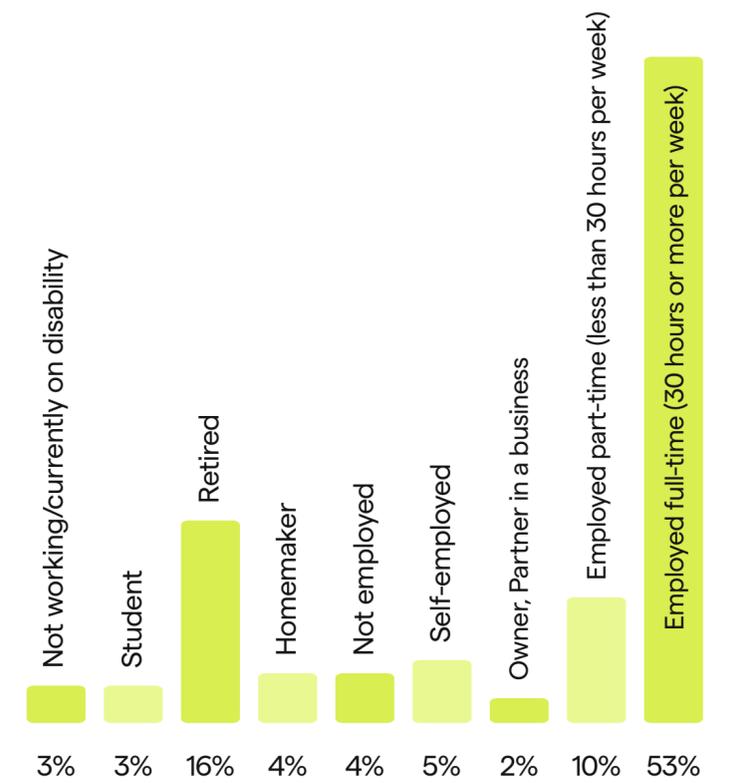# Breakdown of survey respondents by age, gender, and employment

Age group

18-24 25-34 35-44 45-54 55-64 65+

21%
16%
11%
19%
19%
13%

Gender

51% 49%

Male Female

Employment

Not working/currently on disability — 3%
Student — 3%
Retired — 16%
Homemaker — 4%
Not employed — 4%
Self-employed — 5%
Owner, Partner in a business — 2%
Employed part-time (less than 30 hours per week) — 10%
Employed full-time (30 hours or more per week) — 53%

Trends at a glance

"I'm sorry to hear you're feeling sick. Let's see when we can get you in"

Patients are open to AI, but empathy matters. Nearly half of patients said they'd be comfortable speaking with an AI agent during an initial intake call.

Two-thirds (67%) said it is very or extremely important that AI can recognize emotional cues like distress, hesitation, or urgency and respond appropriately.

Small touches make a difference

Even simple changes, like adjusting tone, slowing speech, or acknowledging a patient's experience, can transform interactions from transactional to caring. These micro-interactions help patients feel heard and valued.

Handoffs to humans are essential

Patients expect AI to handle routine tasks but still want a clear path to speak with a clinician when needed.

Providing an efficient route to a human for planned or spontaneous handoffs avoids frustration and builds trust.

Patients are willing to share data for better experiences

Over half (54%) of respondents were positive about using intake information to provide more personalized resources or responses in future interactions.

When AI builds on previous interactions, the experience feels seamless and human-centered.

AI must get it right

28% of patients said their biggest concern about using voice AI for health discussions is potential misunderstandings.

Background noise, accents, and speech variations make accurate recognition challenging. AI that listens carefully and adapts to these real-world factors helps patients feel heard and confident in the process.

Comfortable (65%)
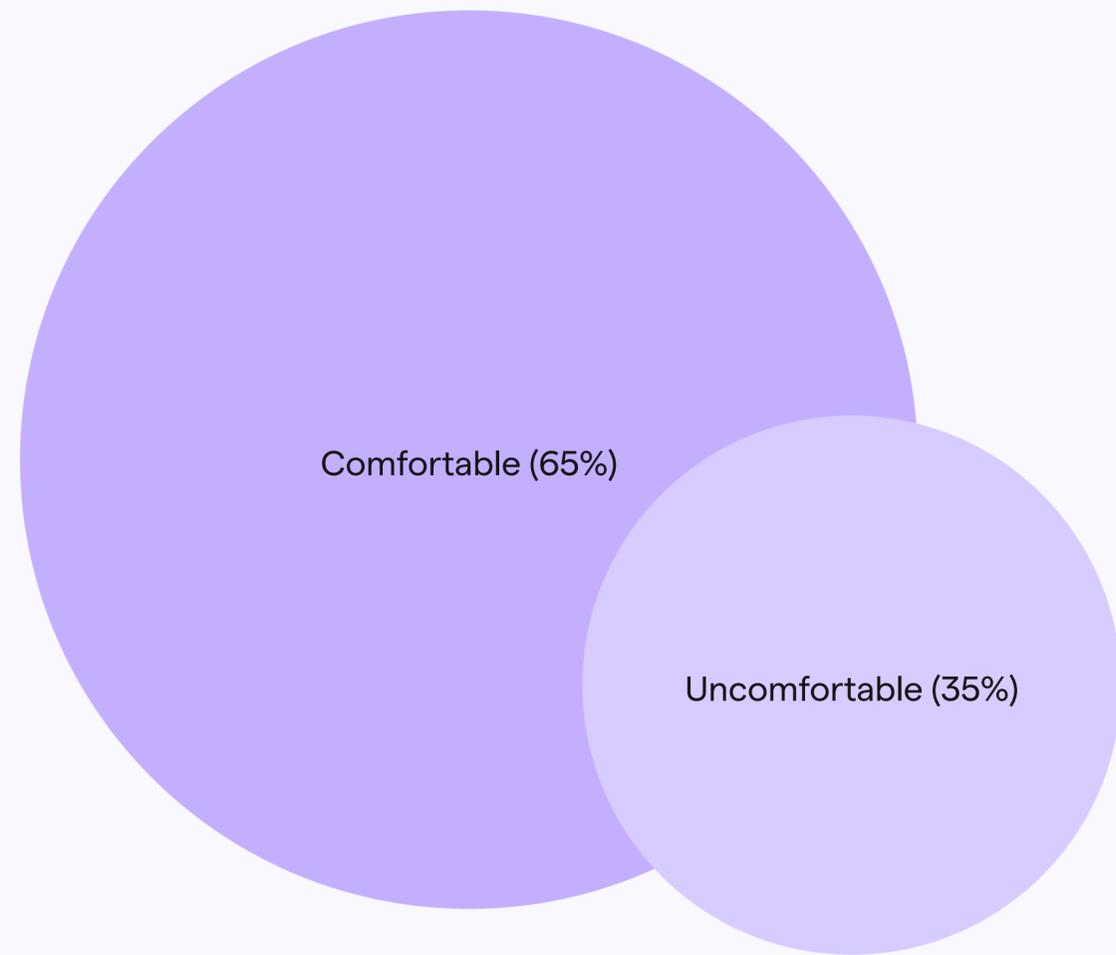
Uncomfortable (35%)

65% of patients in the Iris Telehealth survey reported **feeling comfortable using AI assessment tools** before speaking with a human provider.

The rise of the digital bedside manner

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Two-thirds (67%) said it is very or extremely important that AI can recognize emotional cues like distress, hesitation, or urgency and respond appropriately.

Nearly half of patients told us they'd be comfortable speaking with an AI agent about personal mental or physical health concerns during an initial intake call. And 67% said it's "very or extremely important"

that AI can pick up on emotional cues like distress, hesitation, or urgency, because missing them can turn a simple check-in into a frustrating or even risky experience.

No one wants to hear, "Please explain in a few words why you're calling today." They want to hear, "How can I help?" and feel confident sharing the details needed for the best resolution. When conversations touch on sensitive topics, appropriate responses in tone and action matter. Patients notice, and empathy is expected, even from AI agents.

Q1

How comfortable would you feel speaking with an AI agent about personal mental/physical health concerns?

Q5

How important is it that the voice AI agent can recognize emotional cues in your voice (such as distress, hesitation, or urgency) and respond appropriately, both in tone and with the correct desired outcome?

Empathy and attentiveness set AI apart

Before AI voice quality improved, it was easy to spot a robotic IVR. Now, the differentiator is human-like attentiveness. Patients notice when an agent is empathetic, not just functional. Healthcare organizations have to balance meeting regulations, rising patient expectations, and managing legacy automated systems. The challenge is that those legacy systems often hold automation back—they weren't built for natural, empathetic conversations, and patients notice the gap.

The standard for automated experiences has moved on. Patients now expect the same level of warmth and attentiveness from AI that they'd get from a person. With thoughtful conversation design, AI can move beyond functional responses to empathetic, context-aware interactions.
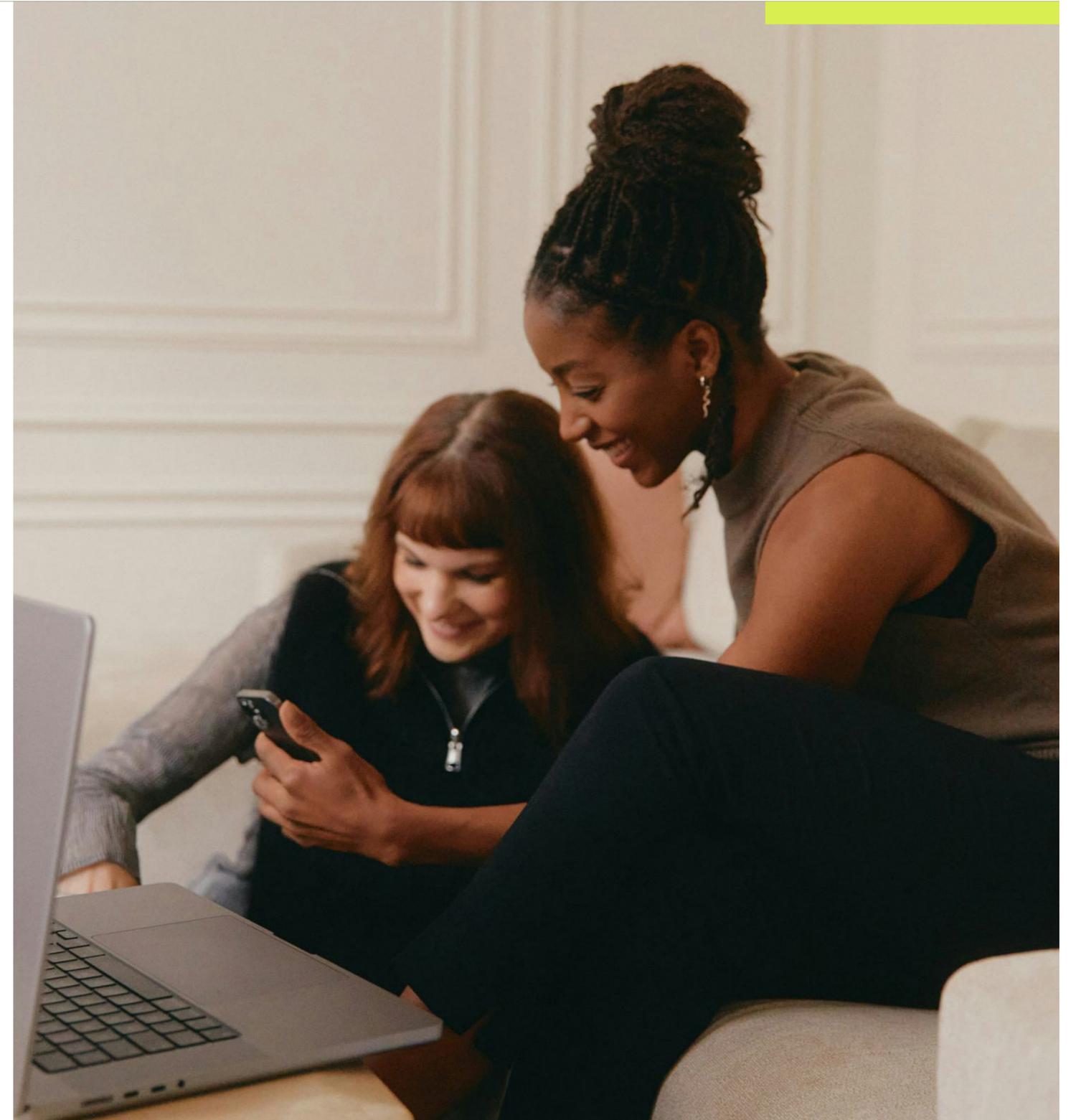
23%

of patients say their biggest concern about using a voice AI agent for health discussions is a lack of empathy.

Why context matters in patient interactions

Imagine your child is up all night coughing. You're bouncing between Google, ChatGPT, and calling your doctor. The internet gives contradictory answers, none of them entirely trustworthy, yet they feel more human than the touchtone orders you struggle to hear over your panic. After pressing 1, then 4, then 3, you're on hold for 15 minutes because of high call volume.

It's no surprise that 23% of patients say their biggest concern about using a voice AI agent for health discussions is a lack of empathy. Moments like this show why context and emotional awareness are critical. AI agents that recognize emotions, understand conversational nuance, and know when a human touch is needed can turn even routine interactions—like appointment updates—into attentive, supportive experiences.

Small touches make all the difference. Slowing the pace of speech, being more descriptive, or repeating key information in some cases allows patients time to process what's being said. These techniques help AI feel more present, empathetic, and accommodating—delivering a level of care patients notice and value.

0:16
Sorry to hear you weren't feeling well. Moving your appointment is absolutely no problem.

0:14
Your hospital appointment has been rescheduled. The new booking is confirmed.

PolyAI agents use speech recognition that adapts to different accents, speaking styles, and everyday ways people talk.

Our speech recognition model, Owl, is purpose-built for customer service. As a smaller, specialized model, it is more efficient, reducing response time and making automated conversations feel natural and effortless, just like talking to a person.

"Did you get that?"

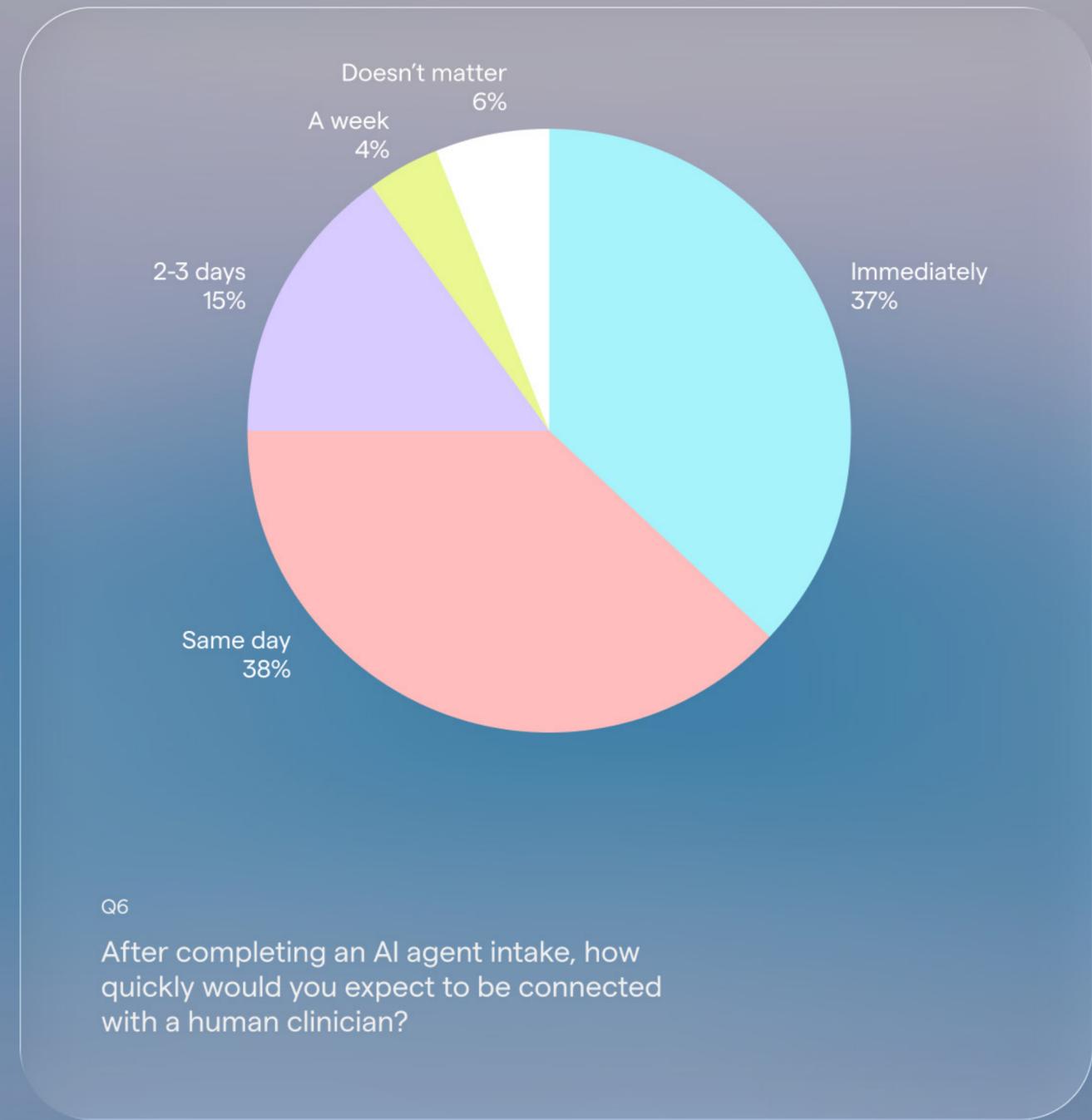In healthcare, misunderstanding can have real consequences.

More than a quarter of patients (28%) said their biggest concern about using a voice AI agent for health discussions was misunderstanding responses.
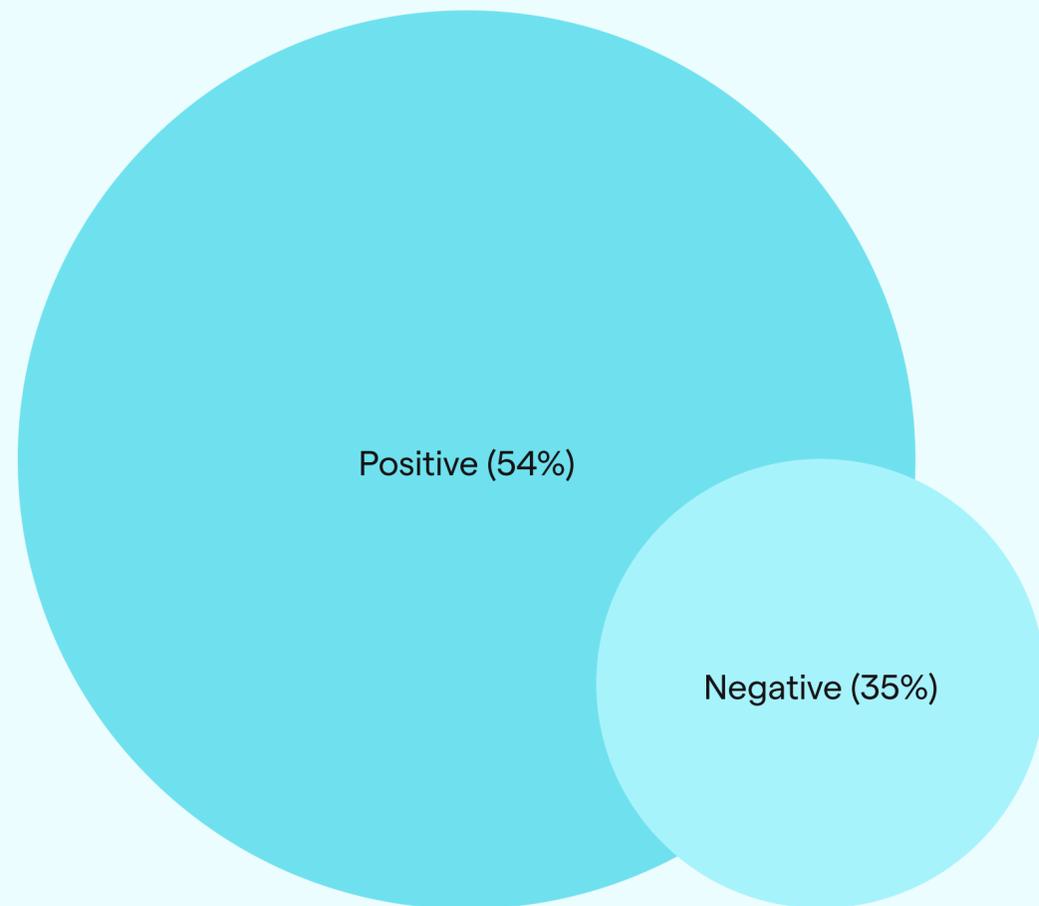
Background noise, interruptions, accents, or slang can make understanding difficult. Even a poor phone connection or a TV in the background can turn a simple intake question into confusion. These factors make accurate speech recognition challenging, which highlights the need for AI that can adapt and respond carefully.

AI that knows when to step aside

Even with thoughtful conversation design, patients still want to speak to a real person at key moments. Sometimes handoffs can be planned, like capturing details before passing the call to a clinician. Or they happen spontaneously, like when questions get complex or a patient simply prefers a human.

AI should never feel like a barrier. Patients need a clear path to a human, not a maze of menus and "press one for this, press two for that." Patients just want the freedom to say, "I'd like to schedule a routine check-up. Can you help me find an available appointment?" An AI agent's role is to gather key information, and always hand the conversation to a human when it matters most.

Doesn't matter
6%

A week
4%

2-3 days
15%

Immediately
37%

Same day
38%

Q6

After completing an AI agent intake, how quickly would you expect to be connected with a human clinician?

Making care feel personal

Positive (54%)

Negative (35%)

Over half (54%) of respondents were positive about using intake information to provide **more personalized resources or responses in future interactions.**

Lasting patient relationships come from engagement that's helpful, timely, and personalized.

Over half (54%) of respondents were positive about using intake information to provide more personalized resources or responses in future interactions. Once a patient is identified through the system, AI can build on previous interactions to make experiences seamless and human-centered.

To achieve this at scale you need intelligent systems that do more than solve problems. AI agents need to show up with context, anticipate needs, and add value in every interaction.

Personalization also reduces repetition. Each interaction builds on the last, making the experience smoother and more thoughtful. It all starts with data, not just collecting it, but using it to provide context, anticipate needs, and make every interaction feel genuinely personal.

Dedicated analyst agents make this possible by eliminating the gap between data collection and actionable insights. Rather than waiting for BI teams to build reports or static dashboards, you can now simply ask questions and get actionable answers quickly.

Q8

If anonymized data from your intake could be used to provide more personalized treatment recommendations or resources in future interactions, how would you feel about this?

Comfort with AI starts with choice and care

52% of patients said they would be likely to use a healthcare service that starts with a voice AI agent, while 25% were neutral or unsure. That's understandable. Healthcare is personal and emotional, and patients have always valued the human touch.

Across industries, people are getting used to AI, and in healthcare, patient-facing AI continues to prove how it can handle sensitive conversations with care.

From explaining symptoms and gathering medical history to guiding next steps, AI can support patients while making sure there's always a clear path to a human clinician.

Would you use a healthcare service that starts with a voice AI agent?

Yes	52%
Maybe/Unsure	25%
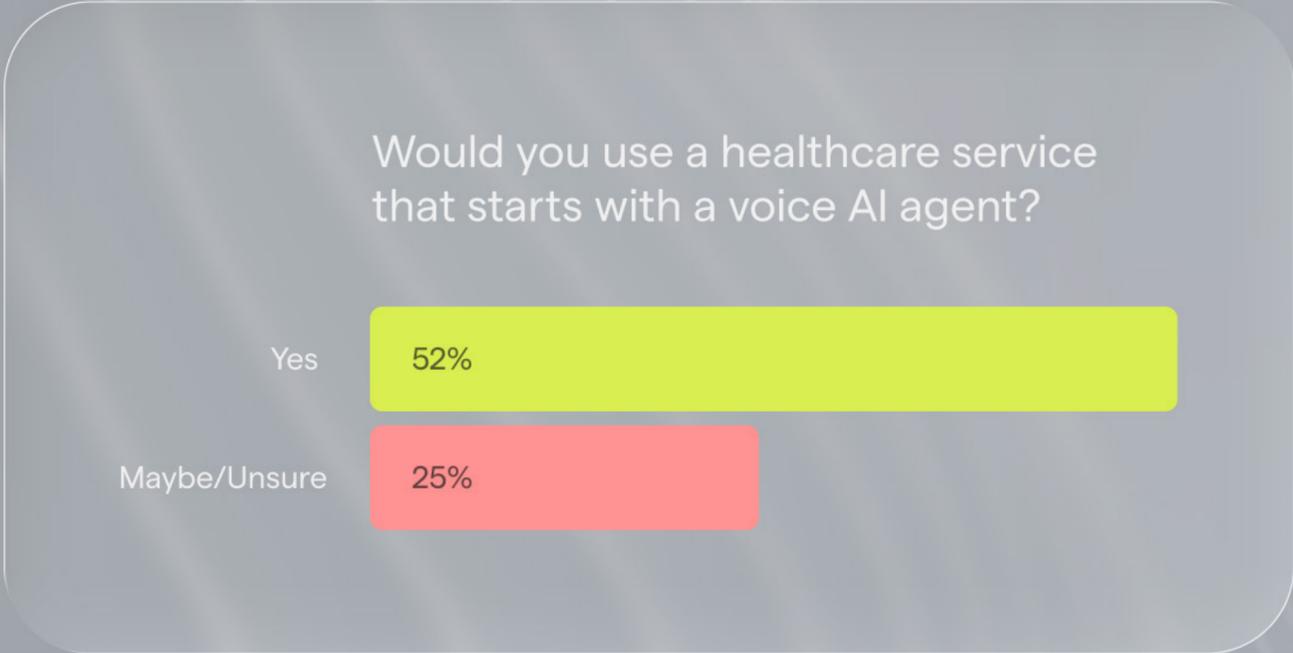
72%

reduction in average handle time for routine requests

30%

call containment, surpassing the 20 percent target

4%

increase in patient satisfaction

AI agents in action with Howard Brown Health

Howard Brown Health is a great example of this in action. As the largest federally qualified healthcare organization serving the U.S. LGBTQ+ community, they manage over 40,000 patient interactions a year. Spikes in call volume and multilingual needs made timely, consistent responses difficult, and staff were stretched thin handling routine inquiries.

To help, they introduced Alex, a 24/7 AI agent powered by PolyAI. Alex greets patients naturally, handles FAQs, schedules appointments, manages prescription refills, detects emergencies, routes calls, and escalates cases when specialized help is needed. Integration with MyChart, Epic EMR, and telephony platforms keeps support seamless across the patient journey.

AI freed staff to focus on complex interactions, reduced burnout, and ensured patients received timely, accurate, and affirming support, even during spikes in demand.

Intake that fits patients' lives

Patients are ready for AI in healthcare, but only when it feels like a helpful addition to the intake process and not a barrier.

They want intake to be simple, routine questions handled efficiently, and clear pathways to speak with a human when needed. They also want empathy, reassurance, and a sense that someone is listening.

Voice AI that adapts, recognizes emotional cues, and integrates with clinical workflows is already making this possible and freeing staff to focus on complex care, and giving patients experiences that feel personal and attentive.

PolyAI

Do you want to simplify patient access over the phone with a voice AI agent?

PolyAI agents enable your patients to say whatever they want, however they want, to get the help they need, without the pain of being misunderstood.

Speak to our team today