U.S. Market Adoption of Healthcare AI Chatbots and How They Drive Value

Market adoption rates for AI chatbot and online scheduling use-cases

As of March 2022 across U.S. health systems

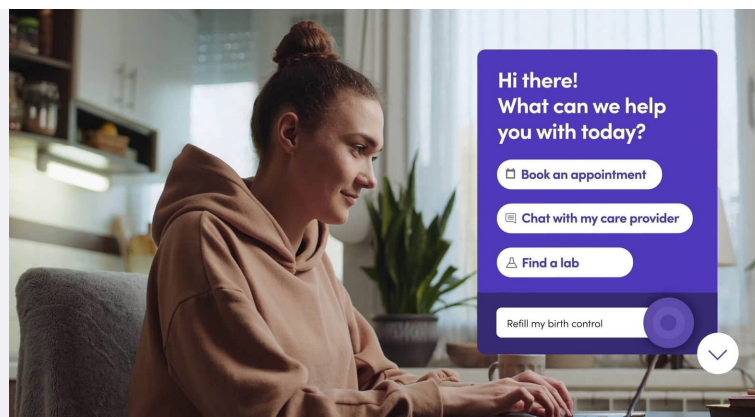| **4%**	**7%**	**10.5%**	**14%**	**56%**
Adoption of **AI Virtual Triage** for any symptom	Adoption of **COVID-Only AI Virtual Triage**	Adoption of **Patient Services AI Chat**	Adoption of **Public Online Scheduling Across Many Specialties**	Adoption of **Any Form of Online Scheduling**

AI chatbot use-cases in healthcare have been trending upwards in recent years

In the last few years, particularly since the start of the COVID-19 pandemic, there has been tremendous reporting on conversational artificial intelligence (AI), chatbots, and/or AI chat use-cases for hospitals and health systems. Every month, an average of 140 articles on chatbots in healthcare were published in major news outlets, according to Google News, highlighting how much attention has been given to chatbot applications in recent years.

Generally, these use-cases involve giving patient-consumers access to healthcare resources or information via an artificially intelligent chat solution, without the need to talk to a person. The aim of such solutions is to empower patient-consumers with easier, convenient, and self-service access to healthcare, ensure that they're routed appropriately within the system, and create efficiencies for health systems to interact with thousands of people at scale without human intervention.

WE SOUGHT TO UNDERSTAND

What is the current overall market adoption of this technology for hospitals and health systems?

Hi there!
What can we help you with today?

- Book an appointment
- Chat with my care provider
- Find a lab

Refill my birth control

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INCLUSION CRITERIA

From Definitive Healthcare's complete list of U.S. hospitals and health systems with at least $250M in Net Patient Revenue, our final cohort of 647 systems was curated using the following criteria:

- Hospitals or regional systems in an Integrated Delivery Network (IDN) with a shared, consolidated web experience were only analyzed once.

- IDNs with distinct web experiences for each hospital / system were analyzed individually.
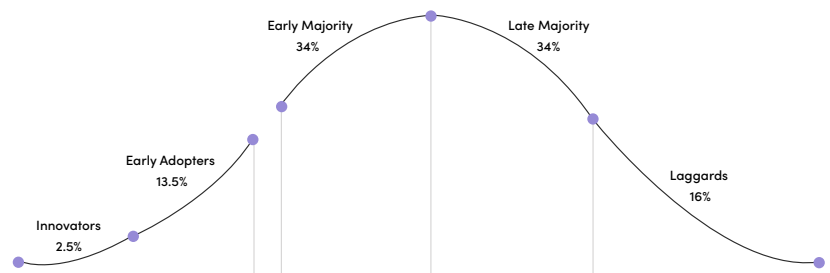
Our approach

The team at Clearstep analyzed public websites and web applications for each of **the top 647 health systems in the United States** to answer the following questions:

- How many have enabled online scheduling?

- How many have implemented a chatbot on their website?

- If a health system **has** implemented a chatbot, is it used for:

1. COVID-19 Virtual Triage (i.e. symptom screening and navigation to appropriate care endpoint for COVID risk)

2. Virtual Triage for any symptom (i.e. online triage for any combination of symptoms or clinical conditions to the right point(s) of care across the health system)

3. Patient Services support (i.e. administrative, non-clinical workflows that help people find information, doctors, contact/billing information, etc.)
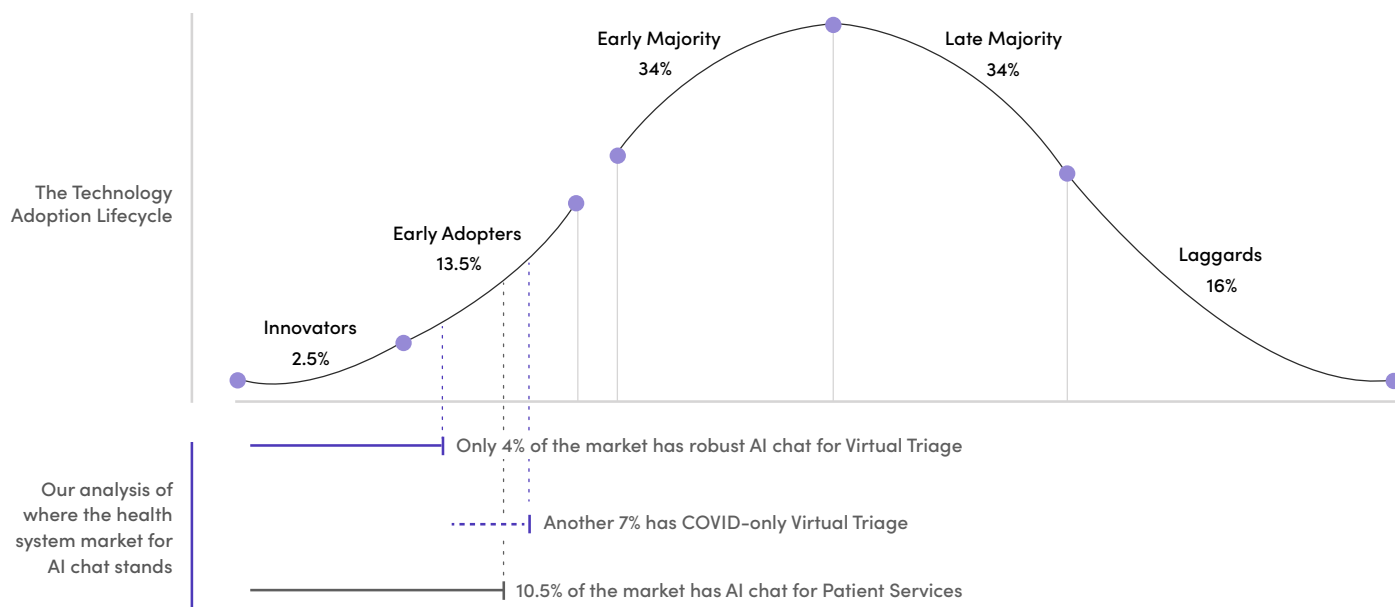
CATEGORY DEFINITIONS

- **Innovators:** Eager to adopt new tech, don't require established ROI proof-points.

- **Early Adopters:** Innovative, but make selective purchasing decisions; often key opinion leaders.

- **Early Majority:** Risk-averse, look towards early market for feedback, need ROI proof.

- **Late Majority:** Skeptical with less financial flexibility.

- **Laggards:** Averse to change.

We analyzed AI chat adoption against the technology adoption lifecycle

Innovators 2.5% · Early Adopters 13.5% · Early Majority 34% · Late Majority 34% · Laggards 16%

You may need a urine test as a next step

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AI chat is in the early adoption phase across all health system use-cases

The Technology Adoption Lifecycle

Innovators
2.5%

Early Adopters
13.5%

Early Majority
34%

Late Majority
34%

Laggards
16%

Our analysis of where the health system market for AI chat stands

Only 4% of the market has robust AI chat for Virtual Triage

Another 7% has COVID-only Virtual Triage

10.5% of the market has AI chat for Patient Services

At the onset of COVID-19, there was an urgency to adopt new solutions that could help patient-consumers find care, information, and resources as easily as possible, without overloading call centers. In just a few years, this resulted in accelerated adoption of AI chat solutions for Virtual Triage and Patient Services from low single digit percent adoption to roughly 10% for each.

Meanwhile, adoption of online scheduling has also been increasing so that patient-consumers can book appointments themselves online. A total of 56% of systems have enabled some level of online scheduling, though most require an existing patient account to see and book time slots and many only have primary care availability online. Only 14% of health systems have enabled online scheduling across many specialties that's publicly available and doesn't require an existing patient accounts (thereby unlocking revenue opportunities in building relationships with new patients).

As market adoption of AI chat technology continues to expand across the Technology Adoption Lifecycle over the next few years, use-cases and applications of AI chat will also grow to become more sophisticated and increasingly valuable. You can watch a 1-minute overview of how Clearstep is expanding AI chat use-cases and adoption with Smart Care Routing™ here.

BENEFITS AND VALUE PROPOSITIONS OF SELF-SERVICE, CHAT

Increase online bookings and conversions for new and return patients

Increase patient-consumer satisfaction and drive loyalty

Create operational efficiencies by:
- Reducing unnecessary call volumes
- Optimizing provider capacity and resources via appropriate care routing

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3 Key insights for getting the most value from AI chat

## 1. Meet the patient-consumer where they are

Patients expect a consumer-friendly, digital experience similar to what they enjoy in other industries. If not, they will seek care elsewhere: 40% of patients are not loyal to a local hospital or health system.

But healthcare has become increasingly complex for patients to navigate. According to the Department of Health and Human Services, 88% of patients do not have proficient literacy to navigate the care system.

NEW ERA OF PATIENT DIGITAL BEHAVIOR
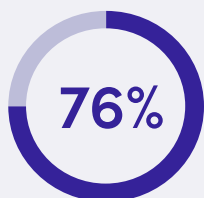
76% of patients go online to look for health and care
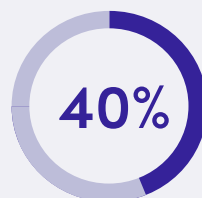
40% of patients are not loyal to a local hospital or health system

Moreover, 76% of patients go online to check symptoms or explore options before getting care, according to Rock Health. **To get the most value from AI chat, select a vendor that can help you meet patient-consumers where they are by delivering an outstanding user experience and helping drive top-of-funnel traffic to the solution by, for example, running paid search campaigns to capture consumers with care-seeking intent online.**

2. Ensure that the AI chat solution you choose is clinically intelligent

Enabling patient-consumers to successfully navigate their needs against your health system's resources via a self-service AI chat is not straightforward. An AI chat solution on your website shouldn't just be another way to access the same information that a user can already find by clicking around the site. Rather, a truly powerful solution will offer patient-consumers information and insight that they could only get by talking to a person.

More than just simple decision-trees, a strong solution will have:

- Clinical intelligence, that can understand clinical conditions and symptomatic complaints to make sure users are served appropriately in that context

- Healthcare administrative intelligence, that can, for example, incorporate realities around prescription renewal challenges, network coverage, and specialty scheduling workflows into the experience

Achieving the value propositions laid out on the previous page depends on an AI chat solution having the robust healthcare intelligence needed to generate real value for patient-consumers. Otherwise, they're left frustrated.

3. Deeply integrate the solution with provider data and scheduling

Without scheduling integrations, patient-consumers who are routed to care options via AI chat are provided phone numbers to call to book the care they need. That experience is a far cry from the digital-first experience of comparing all the clinically relevant care options available to you with bookable appointment slots that are further sorted by what's conveniently located near you or available virtually and what's in-network options for your health plan.

Ensuring the availability of provider data and scheduling integrations is paramount to delivering a complete product that meets consumer expectations and drives value for the organization. Without those integrations, consumers don't get what they want and it's harder to prove the value of AI chat.

The importance of the availability of online scheduling as a precursor to AI chat use-cases is why we spent so much effort in prior sections of this report analyzing the adoption rate of online scheduling with health systems in addition to the penetration of AI chat use cases. With provider data and scheduling integrations, the patient-consumer gets an end-to-end experience, going from need to fulfillment in a matter of a few minutes. Furthermore, the health system can better drive conversions and see the value of efficiencies gained from appropriate routing.

Conclusion & Summary

- Consumer demand for AI self-service technology in healthcare is strong
- AI chat use-cases with health systems have reached 10% adoption, up from low single-digit percent adoption, in a matter of 2-3 years
- AI chat use-cases are evolving to drive even greater consumer and organizational value, and adoption will continue to advance at rapid rates over the coming years
- To derive the most value from AI chat, health systems must:
  - Prioritize the patient-consumer and meet them where they are
  - Ensure that the AI chat system they use is clinically intelligent
  - Deeply integrate the solution with provider data and scheduling

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Clearstep is a healthcare technology company headquartered in Chicago. To learn how we're pioneering AI chat use-cases with health systems via our Smart Care Routing™ solution:

Visit our website at **www.clearstep.health**

Watch our **1 minute solution overview video**

Talk to us at **info@clearstep.health**