SoundHound AI
AMELIA® Allina Health ✙

**BUILDING AN AI AGENT
FOR PATIENT ACCESS**

THE PLAYBOOK FOR BETTER CARE IN 120 DAYS WITH ALLINA HEALTH

WHAT IS AN AI AGENT?

An AI agent is like a ChatGPT-like application that not only converses, but takes action for your patients — like getting them prescription refills — entirely on its own.

23%
increase in service levels

10 seconds
saved per call

Zero
increase in staffing

8,000 hours
saved annually

HOW SHOULD YOU START?

1. Find Your Use Cases

With limitless possibilities, start by finding what matters most to your patients. That's the most important step for success.

2. Design the Experience

Design what the interaction with your Ai agent looks like, and where it fits within your healthcare system's technology environment.

3. Establish Integrations

Connect the right systems to your agent, so that it can act on your patient's behalf without needing help.
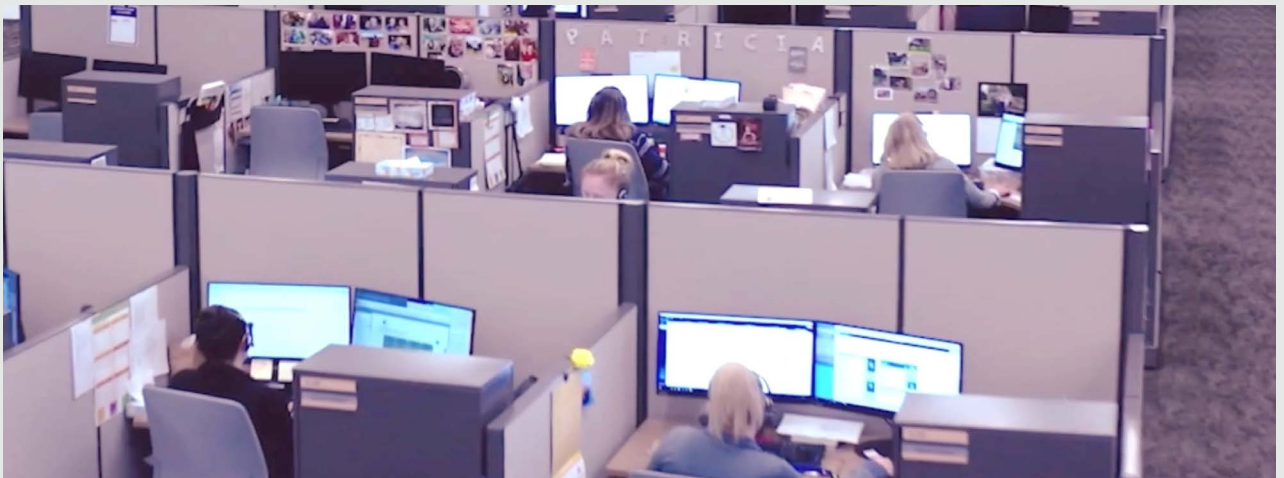
4. Test, Learn, and Optimize

Day 1 is just the start. Watch your AI agent learn over time, become more effective, and expand to more use cases.

DOWNLOAD FOR THE FULL PLAYBOOK

Learn about how we built the first ==AI Agent for Patient Access== at Allina Health, the lessons ==learned,and== how you can do it yourself.

SoundHound AI
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Allina Health

CASE STUDY

BETTER CARE IN 120 DAYS: THE FIRST AI AGENT FOR PATIENT ACCESS

SoundHound AI
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CASE STUDY

BETTER CARE IN 120 DAYS: THE FIRST AI AGENT FOR PATIENT ACCESS

With **Allina** Health

"

We don't save lives with our hands, but we make connections to the caregivers who can. (Amelia) helps us create that (connection)."

— Minda Garcia, VP, Customer Experience Center, Allina Health

# Contents

The AI Agent for Patient Access

In an industry defined by growing patient needs, labor shortages, and legacy infrastructure, health systems find themselves under pressure to modernize patient access without compromising quality. This is where artificial intelligence comes in.

According to the 2024 Gartner® Generative AI use-case guide for healthcare providers, there are two primary sector motivations for adopting Generative AI and AI agents: 1) improving productivity, and 2) increasing patient satisfaction.

Source: Gartner, Generative AI Use-Case Comparison for Healthcare Providers, 2024

Allina Health, a nonprofit health system serving the midwest, has proven the value of such adoption. On SoundHound AI's Amelia Platform, Allina Health built and deployed their first AI agent to redefine patient access: Alli.

Alli helps streamline the health system's massive patient care operations outside of the clinician's room, which range from appointment management to critical queries. **From a volume standpoint alone, Allina Health's Customer Experience Center (CEC) handles:**
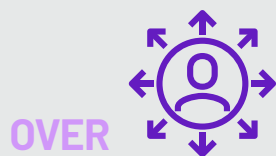
OVER
20M
CONTACTS
Per Year

OVER
500K
INBOUND CALLS
Per Month

OVER
150K
OUTBOUND CALLS
Per Month

In a short 120-day tenure, Alli mitigated the impact of rising call volumes without increasing headcount. From there, Alli quickly demonstrated broader value— enhancing patient service, improving agent productivity, and laying the foundation for scalable, human-centered AI.

Key Results in First 120 Days:

23%
improvement in service levels

48
second reduction in average call response time

80%
of calls answered in under 45 seconds

5-10
seconds saved per call via automated authentication and screen pops

ZERO
increase in staffing despite rising demand

Alli continues to evolve, with SoundHound AI and Allina Health partnering to scale and extend the AI agent's capabilities, including emerging use cases such as prescription refills, clinical assistance, and more.

Addressing Unsolved Call Center Strain With AI

Allina Health serves millions across Minnesota and Wisconsin, and as call volumes increased, the load began to strain resources and jeopardize the health system's care standards. Allina Health found themselves facing consistent challenges:

High call volumes limiting patient access and stretching agent bandwidth

Long wait times impacting care capacity and downstream clinical outcomes

Industry-wide talent shortages affecting care and operations

Heightened patient demand for real-time, digital-first service

Inadequate technical solutions to materially improve operation metrics

> "Saving seconds on a call is critical. That's time that gets patients to care faster."
>
> — Minda Garcia, VP, Customer Experience Center

Allina Health recognized that saving even **5 seconds per call could translate to over 8,000 hours saved annually**—time that could be reallocated to critical patient needs. While the health system had piloted common solutions like IVR, the rigidity of those tools failed to meaningfully improve core metrics such as wait time and total call duration.

This gap created an opportunity for an enterprise AI agent at the front door—reducing friction, improving service levels, and enabling patients to engage on their own terms.

Alli in Action: Replacing IVR With AI Agents ᴵᴵᴵᴵᴵᴵᴵᴵ

Traditional IVR systems fall short of the flexibility needed to properly serve patient access needs, which frustrates patients. They rarely deliver resolutions without escalating to a human, exacerbating the patient queue without improving resolution efficiency for the call center.

Autonomous AI agents change that paradigm.

Built on the Amelia AI Agent platform, Alli goes beyond guiding patients—she takes action on their behalf. By identifying user needs, integrating directly with the Epic electronic health record (EHR) system, and resolving tasks without human intervention, she delivers a true leap beyond IVR and drives measurable service improvements.

Alli also reflects Allina Health's brand voice, making her well-suited to deliver compassionate, high-quality care at scale.

" We customized Alli to reflect the same compassion and care patients encounter when interacting with other members of the Allina Health care team."

— Dominica Tellarico, *Chief Operating Officer, Allina Health*
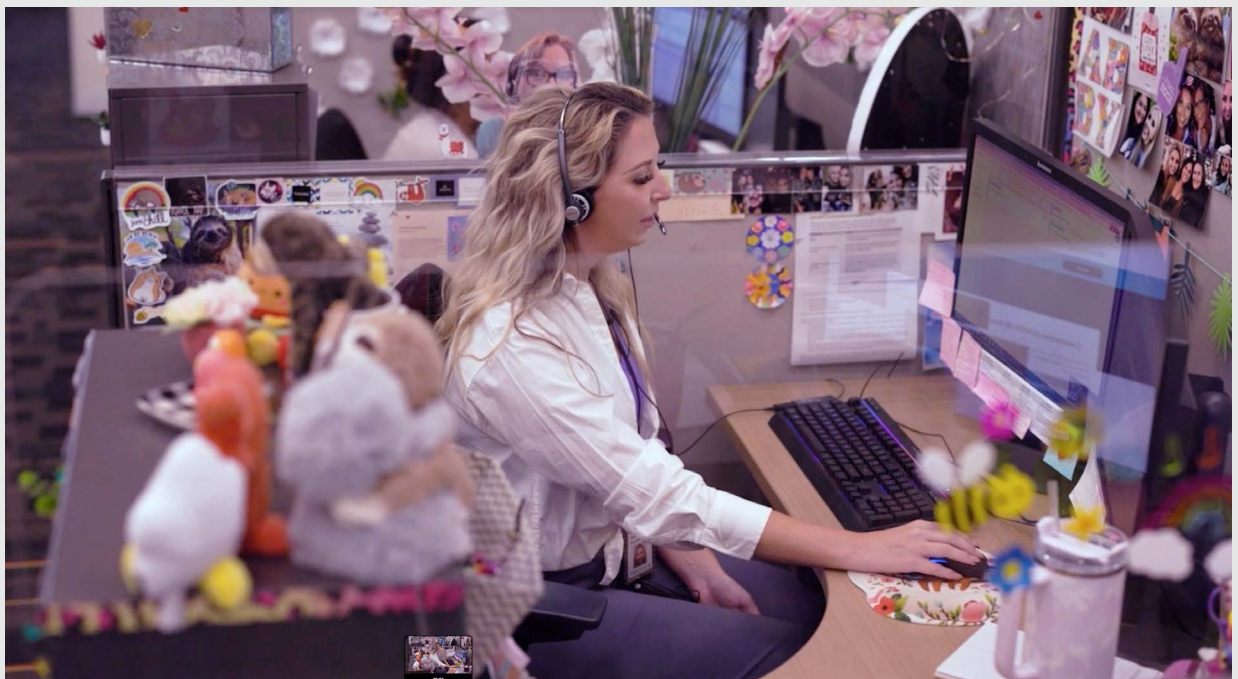
What Are AI Agents?

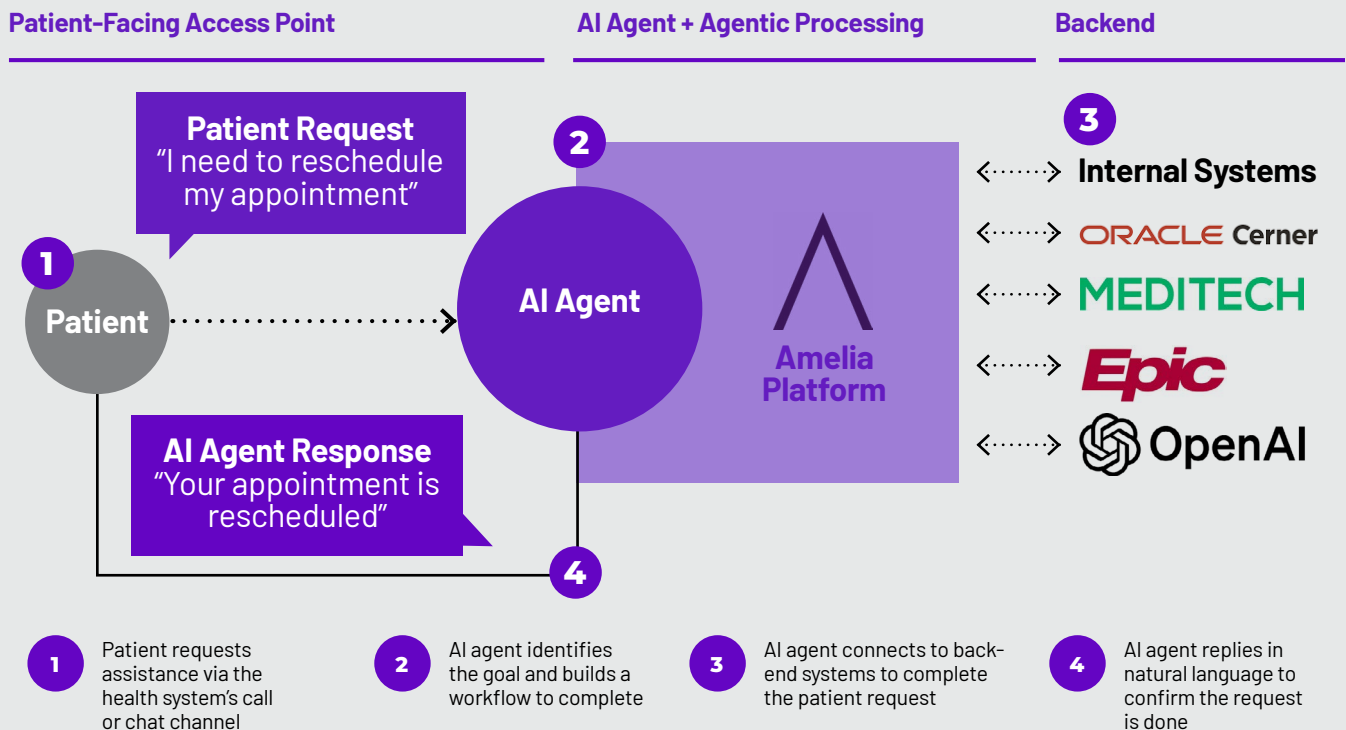**An AI agent is software that makes decisions and takes action to achieve a goal.** It leverages GenAI to understand, respond, and complete tasks along the way. When built right, AI agents operate as digital teammates that work on behalf of patients, customers, and employees.

How an AI Agent for Patient Access Works

Constructed on the Amelia AI Agent platform

Patient-Facing Access Point	AI Agent + Agentic Processing	Backend

1 Patient requests assistance via the health system's call or chat channel

2 AI agent identifies the goal and builds a workflow to complete

3 AI agent connects to back-end systems to complete the patient request

4 AI agent replies in natural language to confirm the request is done

Healthcare AI agents built on Amelia stand out for their end-to-end capability and real-world readiness. They combine advanced LLMs (like OpenAI or Gemini) with deterministic logic, the ability to act autonomously, and smart escalation—layered with native healthcare integrations and real-time voice recognition. For Allina Health, this enables Alli to resolve complex tasks independently, adapt to patient needs in context, and collaborate fluidly with human agents when needed.

Alli's Technical Highlights:

Epic EHR integration for real-time, secure patient authentication

Custom response design aligned to Allina Health's compassionate brand

Governance protocols ensuring regulatory compliance and safe AI expansion

Advanced voice recognition for superior understanding and real-time processing

What Alli Can Do Today

Allina Health's AI agent handles key patient interactions with speed and ease, helping the health system deliver better access and service at scale:

Patient Authentication: Saves minutes on each call with automated authentication

Appointment Management: Cancels, confirms, or reschedules appointments

Care Navigation: Routes to nurse lines, specialists, or primary care

Information Support: Provides directions, clinic hours, and general FAQs

Outbound Calls: Alli can reach every patient at once, for critical care updates

> " Patients call and say, 'Alli helped me reschedule,' like she's part of the team. And she is."
>
> — Signe Peterson, Director of Marketing and Brand, Allina Health

Alli also leverages voice as a high-performance interface, and combines it with autonomous automation and AI-driven actions, such as rescheduling or cancelling an appointment. Allina Health has introduced a modern front door for access that's always-on, endlessly scalable, and ready to support the next generation of digital healthcare.

Finally, Alli is embedded to augment and improve the health system's human staff, rather than replace it. She works alongside human colleagues to transform the reach of what they can deliver. By handling routine inquiries and streamlining authentication processes, the AI agent allows Allina Health professionals to focus their expertise where it matters most—on complex patient needs requiring empathy, judgment, and personalized attention.

Successful Implementation in 90 Days: A Blueprint ⑊⑊⑊

Many healthcare organizations face slow rollouts and siloed deployments when implementing AI. Allina Health defied that trend, launching Alli in under 90 days by prioritizing cross-functional collaboration, clear scope, and specific requirements.

Like any successful AI deployment in healthcare, implementation required a thoughtful balance between: 1) choosing the right partner, 2) planning a phased build, 3) ensuring data security, and 4) leveraging continuous improvement.

Choosing a Partner

Choosing the right implementation partner is critical to success in an evolving technical space. Typically, it is best to assess a potential healthcare implementation on the following factors:

Healthcare Experience: Deep understanding of healthcare workflows, plus adherence to HIPAA, HITECH, and other regulatory standards

Integration Capabilities: Proven ability to connect with EHR systems (e.g., Epic, Oracle Cerner), patient portals, and backend IT infrastructure

Speed to Value: Able to build a clear roadmap for fast deployment, including pilot phases, training, and optimization timelines

Ongoing Support: Dedicated post-launch support with data-driven improvement cycles to refine workflows and boost outcomes

Ultimately, Allina Health chose SoundHound AI based on these and additional critical factors:

Experience in and beyond healthcare. "We were impressed by SoundHound AI's extensive experience in health and non-healthcare spaces such as financial services, including their ability to handle those repetitive, low complexity tasks," says Dr. Dave Ingham, Allina Health's Chief Digital and Information Officer. Additionally, SoundHound AI's deployment team was composed of Epic veterans, who previously spent nearly a decade at the EHR.
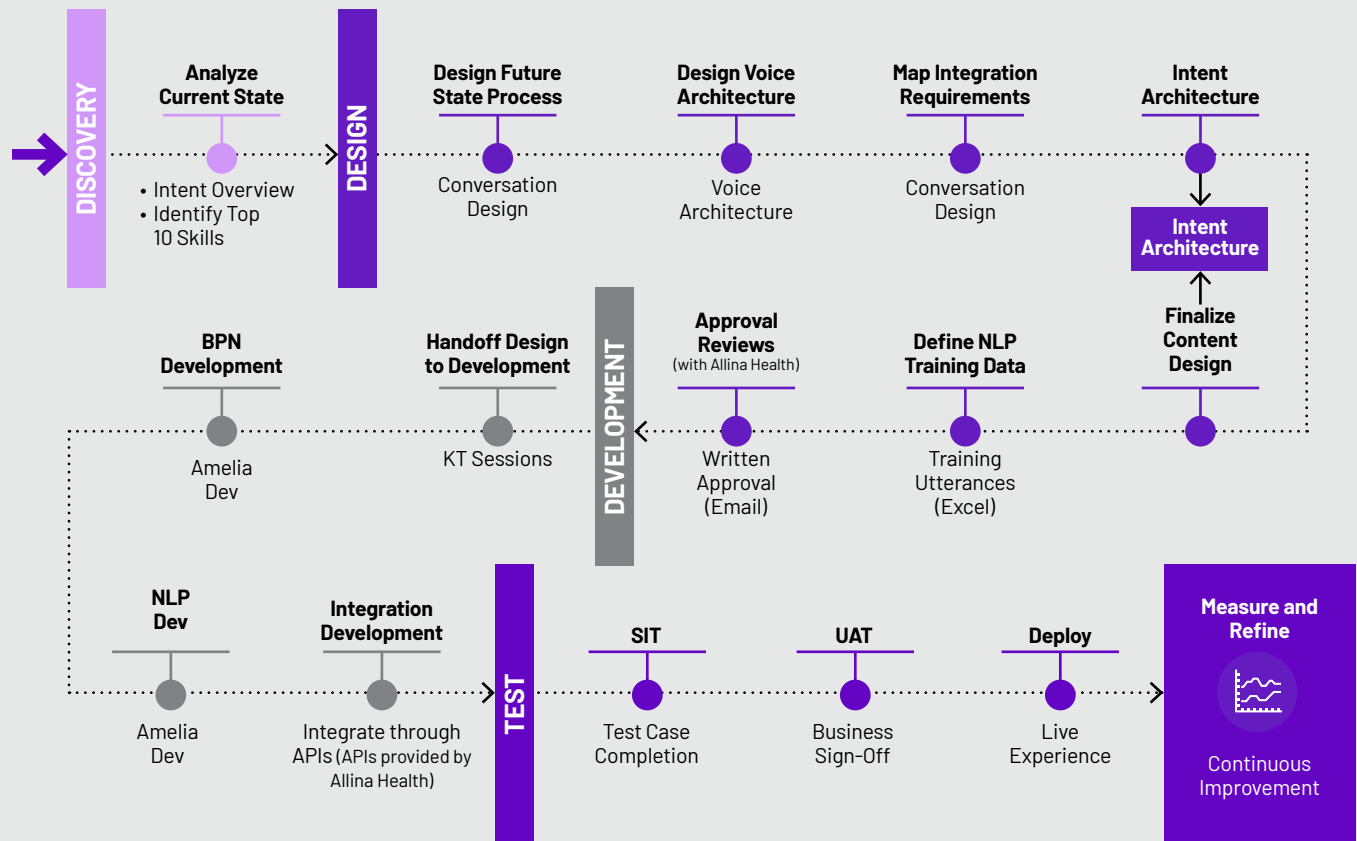
Organizational alignment. "This is not just a contact center project or an IT project," says Jeff McCool, SoundHound AI's Executive Director, Healthcare Conversational AI Strategy. "We have operations leadership involved, IT, infrastructure, and patient leadership throughout the duration of Alli."

A Phased Implementation Approach

To ensure speed-to-value without sacrificing security or quality, Allina Health and SoundHound AI partnered closely across four structured phases: Discovery, Design, Development, and Testing.

This approach brought together healthcare veterans and technical experts to co-develop a solution aligned with real-world workflows and enterprise system requirements:

Amelia Delivery Process Map

DISCOVERY

Analyze Current State
- Intent Overview
- Identify Top 10 Skills

DESIGN

Design Future State Process
Conversation Design

Design Voice Architecture
Voice Architecture

Map Integration Requirements
Conversation Design

Intent Architecture

Intent Architecture

BPN Development
Amelia Dev

Handoff Design to Development
KT Sessions

DEVELOPMENT

Approval Reviews (with Allina Health)
Written Approval (Email)

Define NLP Training Data
Training Utterances (Excel)

Finalize Content Design

NLP Dev
Amelia Dev

Integration Development
Integrate through APIs (APIs provided by Allina Health)

TEST

SIT
Test Case Completion

UAT
Business Sign-Off

Deploy
Live Experience
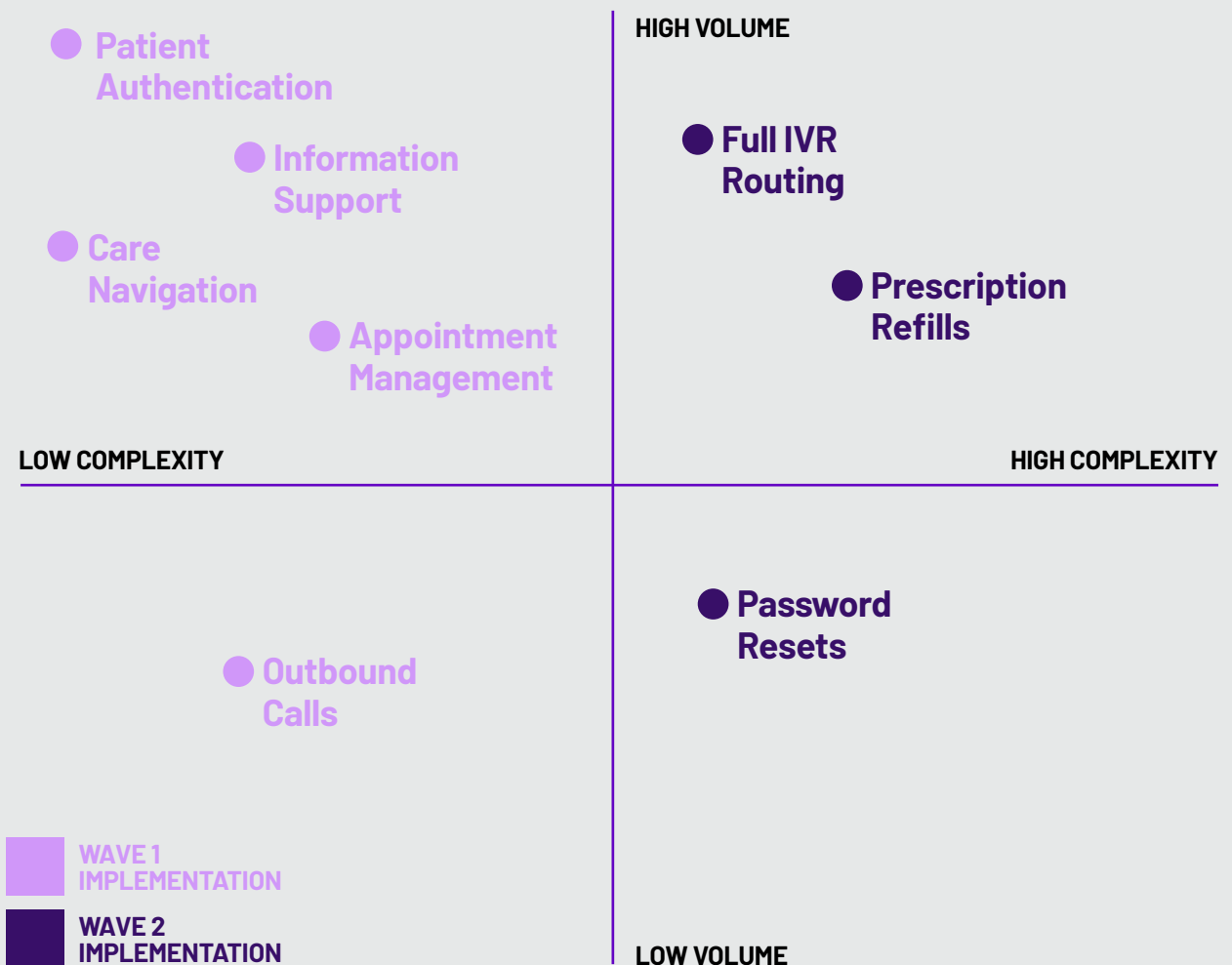
Measure and Refine

Continuous Improvement

1 Discovery & Current State Analysis (Days 1–10)

The project began with a deep dive into Allina Health's patient experience. The teams analyzed patient questions and staff communications to identify high-impact use cases. Epic integration requirements were also validated to ensure the Amelia Platform could securely edit patient data.

Keys to Success:

✔ **Engage** both clinical and operational stakeholders early to capture frontline insights

✔ **Prioritize** use cases based on volume, complexity, and readiness (visual below)

✔ **Validate** technical prerequisites (e.g., API access, security policies) up front

To move fast, the team first deployed Alli to focus on patient authentication and appointment management capabilities—the high-impact, high-volume use cases with low implementation complexity:

● **Patient Authentication**

HIGH VOLUME

● **Full IVR Routing**

● **Information Support**

● **Care Navigation**

● **Prescription Refills**

● **Appointment Management**

LOW COMPLEXITY

HIGH COMPLEXITY

● **Password Resets**

● **Outbound Calls**

■ **WAVE 1 IMPLEMENTATION**

■ **WAVE 2 IMPLEMENTATION**

LOW VOLUME

2 Conversation Design & Experience Mapping (Days 11–35)

SoundHound AI's Conversational Architects partnered with Allina Health to design the conversation logic. Using LucidChart, they mapped every possible patient interaction, including Epic and other integration points within each flow.

Keys to Success:

- ✔ **Use real call data** to shape utterances and intent libraries
- ✔ **Design for empathy and clarity**, aligning tone with the health system's brand
- ✔ **Include escalation logic early** to ensure seamless fallback to human support

3 Development & Integration (Days 36–90)

With designs approved, engineers built Alli's NLU, business logic, and Epic integrations. Alli was connected to key Epic APIs to enable patient identification, appointment confirmation, cancellation, and rescheduling.

Keys to Success:

- ✔ **Leverage Epic's API documentation** and test environments to accelerate development
- ✔ **Use modular, reusable components** to support future use cases
- ✔ **Maintain joint QA sessions** to validate integration logic against real data

4 Testing, Refinement & Go-Live (Days 91–120)

Allina Health validated Alli through real-world testing, including edge cases. A phased rollout followed, starting with select clinics and expanding system-wide based on performance and readiness.

This agile co-development model enabled continuous testing and refinement. As Alli gained traction, agents and leaders alike asked for more capabilities—organically accelerating adoption.

Keys to Success:

- ✔ **Test** both "happy paths" and edge cases using real patient queries
- ✔ **Monitor** early performance closely and iterate quickly on conversational tuning
- ✔ **Roll out** in waves to ensure support teams are equipped to manage feedback and adoption

Ensuring Data Security

Security remains paramount in healthcare implementations of AI. Allina Health prioritized this aspect from the beginning:

"Security is an ever present worry for me and for our security team," says Dr. Ingham. "Including keeping both data and patient information safe, and making sure the patients are appropriately authenticated when they call in. Alli has been a real boon for us in that space."

In fact, Allina Health realized that implementing Alli actually enhanced security by:

✔ **Standardizing** authentication protocols

✔ **Reducing** the need for patients to repeat sensitive information

✔ **Creating** more reliable identification verification

Continuous Improvement

" The moment we launched, agents were asking, 'How do we get Alli to do more?'"

— Michelle Vossen, *Voice Modernization Program Manager, Allina Health*

Allina Health's success shows that healthcare AI can be deployed quickly and responsibly when treated as a strategic collaboration—not just a software implementation.

Dr. Ingham, Chief Digital and Information Officer, framed the Amelia AI Agent platform as more than a tool—calling it a "foundational platform" for Allina Health's digital transformation.

Dr. Ingham emphasized the importance of choosing AI partners with deep integration experience, especially across EHRs like Epic and cross-functional systems. Allina Health prioritized platforms over point solutions, seeking scalable technologies that could deliver quick improvements in access operations while also expanding into clinical and operational settings.

Amelia stood out for its nimbleness, its background handling low-complexity automation at scale, and its alignment with Allina Health's enterprise needs. As Dr. Ingham noted, "We're not chasing shiny objects. We're building reusable, extensible systems that lift the entire organization."

Outcomes Over First 120 Days

The healthcare industry demands results. In less than four months, Alli delivered measurable improvements to patient access and operational performance—without requiring additional labor.

Quantifiable Results

Alli quickly delivered the expected operational efficiencies for patient calls, easing the burden on care teams and improving access. Key performance gains included:

23%
improvement in service levels

48-Second
reduction in average call response time

80%
**of calls resolved** in under 45 seconds

5-10 Seconds
saved per call through smart workflows

> "I've been here for 24 years, and it's been the best 120 days (of implementation) here. Alli delivered immediate value."

— Minda Garcia, VP, Customer Experience Center

In a time of tight margins and tight labor markets, early results like these offer a compelling case for successful healthcare AI investment.

The improvement doesn't stop here. Allina Health has used live interaction data from day one to continuously optimize Alli, rapidly updating models, workflows, and integrations. Weekly reviews of call transcripts and categorized intents enabled near real-time optimizations.
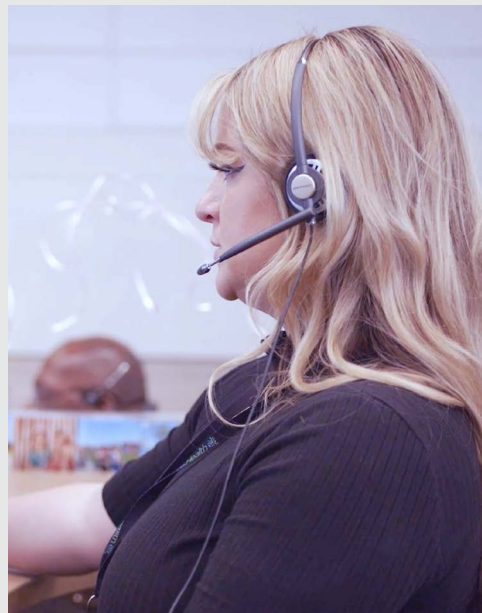
This continuous feedback loop helped:

✔ **Expand coverage** to more call types

✔ **Improve** accuracy and containment

✔ **Reduce** fallbacks and boost task completion

Ongoing iteration makes Alli smarter and builds trust across patients and staff, which is a key component to any significant AI agent deployment.

Empowering Both Patients and Agents

Healthcare organizations must design AI to empower—not replace—human teams. Alli does exactly that. By offloading repetitive work and handling routine interactions, Alli creates space for agents to focus on complex, high-emotion scenarios.

Impact Across the Care Ecosystem:

✔ **Patients gain self-service options** and avoid long waits

✔ **Agents report less cognitive load,** faster onboarding, and more job satisfaction

✔ **Seniors and digital newcomers succeed,** proving accessibility across demographics

Alli lets me focus on what I do best—connecting with patients."

— Edna, Contact Center Agent, Allina Health

This AI-human collaboration supports better care outcomes and staff retention—two top priorities in today's healthcare climate.

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The Next 1,000 Days

AI adoption in healthcare is often limited by narrow use cases. Alli proves that, with the right foundation, AI agents can flex across operational and clinical domains. This drives efficiency today while opening doors for tomorrow.

Upcoming Expansions:

Weather-triggered rescheduling during closures or storms

Automated prescription refill workflows

Pre-op intake and triage for nurse lines

Expansion to Allina Health's 1-800 line for broader access

> " AI in healthcare must be human-centered, secure, and scalable. Alli checks all three boxes."

— Dr. Ingham, Chief Digital and Information Officer

As more health systems look to AI for operational resilience and digital equity, Alli offers a playbook for responsible, scalable implementation.
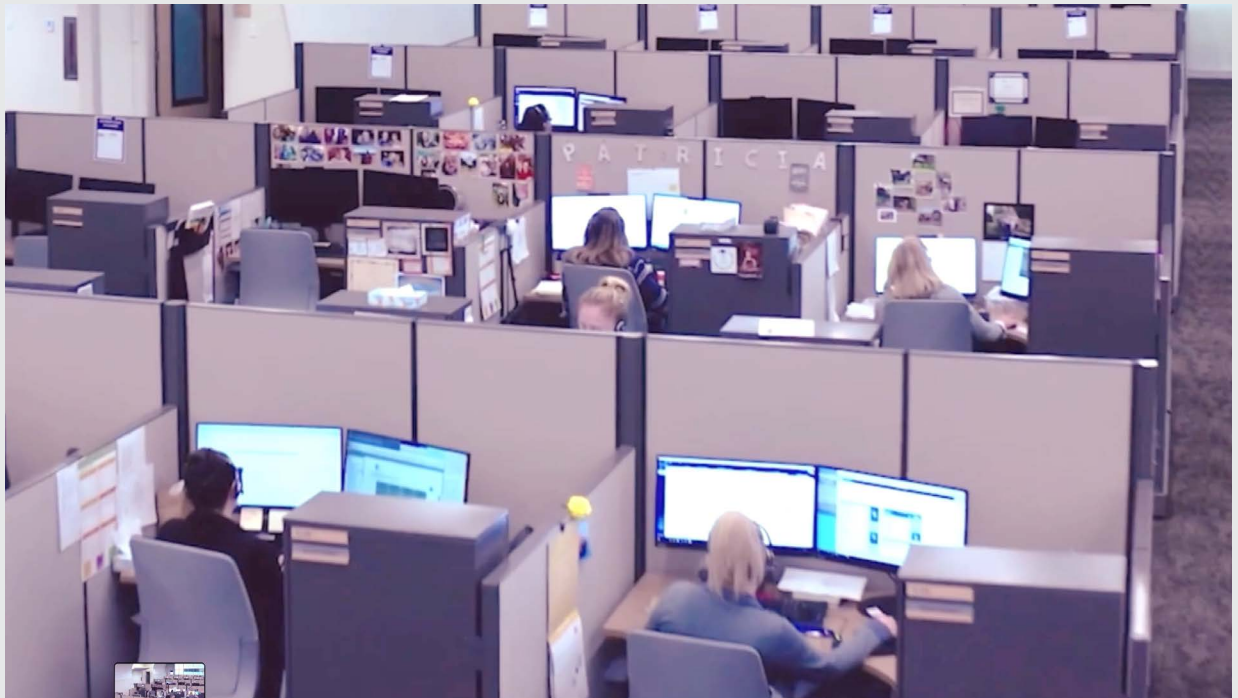
Lessons for Healthcare Leaders 〰️

Across the industry, leaders are asking: How do we make AI a reality? How do we scale it safely and remain focused on human design? And how do we use it to make care better and not just cheaper?

Allina Health's approach offers a clear answer: start with early, simpler wins to gain confidence, integrate deeply, and focus on both operational impact and human experience.

Key Takeaways:

✔ **Start Simple:** Appointments and authentication are high-impact, low-risk entry points

✔ **Human Design:** Create a brand-aligned voice, and focus on use cases that augment your human talent.

✔ **Embed Governance:** Ensure responsible, compliant use of AI across workflows

✔ **Plan for Scale:** Integrate with EHRs and enable real-time orchestration

✔ **Use Data to Adapt:** Let real-world interactions guide expansion

Alli's story demonstrates that AI agents—done right—can solve urgent operational problems while advancing the broader goals of access, equity, and patient-centered care.

> ❝ **As we continue to discover new ways to use Alli as our new AI technology, we're really excited to have her help us extend our care team and the capacity of our patient service representatives," says Signe Peterson, Director of Marketing and Brand. "And also to help us be more helpful and efficient in our investments across the organization."**

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