

AI & Patient Access

Elevate the Patient Experience, Decrease Cost of Ownership

David Cerino, CEO Envera Health



Established in 2016, Envera Health was conceived with the vision of improving healthcare access and closing communication gaps in patient care.

"Envera" is a Latin derivative of "in truth" and the name reflects our founding principle: greater transparency in the interactions that take place in healthcare benefits patients and providers alike.

Today, we work with Healthcare providers nationwide developing fully customized solutions that combine the right combination of **"human + tech"** to ensure a better patient experience and align patient access to greater system goals.

The strategic application of AI and Automation technologies is one of the ways we do so.

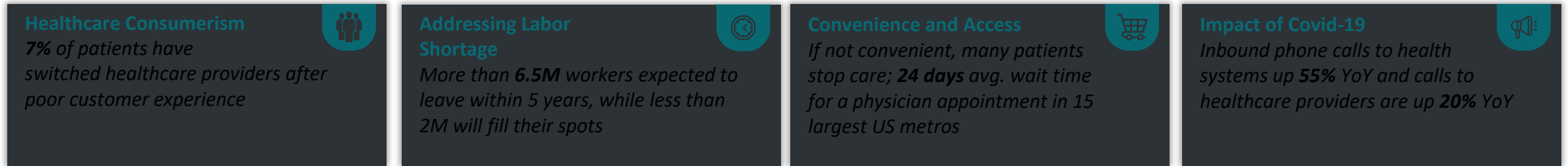
Let's Define Patient Access

“Ease with which patients can obtain and use healthcare services, information, and resources. It's a key part of the healthcare system and affects the quality and availability of care.”

- Patient access includes:
 - **Administrative processes** - Scheduling appointments, registering for care, verifying insurance, managing appointments, and billing and payments
 - **Health information** - Providing patients with information about their health and treatment options
 - **Overcoming barriers** - Addressing systemic barriers to care, such as language and cultural barriers, transportation difficulties, and lack of information

Market Dynamics

Global Challenges Impacting Healthcare Costs, Access, and Utilization Today¹



Health System Priorities²



1. Sources: Centers for Medicare & Medicaid Services, Kaiser Family Foundation, National Library of Medicine, National Academy of Medicine, Mercer Report
2. Sources: Lumeon, "U.S. Patient Access Leadership Research: 2020/21." October, 2020. Survey of 58 hospitals with visit volume of over 25K appts per month

2024 Harris Poll

- Interviewed 100+ leaders involved in data analytics, information systems and software integration.
 - 96% of respondents believe that effectively leveraging AI gives healthcare providers a competitive edge.
 - More than 60% of respondents said AI can analyze large patient datasets to identify trends and inform population health intervention strategies.
- Three biggest challenges healthcare leaders face:
 - 40% said lack of the right talent to facilitate adoption
 - 39% said limited organizational experience with AI
 - 35% said concerns about ethics, privacy and security

<https://www.chiefhealthcareexecutive.com/view/most-healthcare-leaders-see-ai-as-essential-but-they-see-challenges-ahead>

Healthcare typically lags about *a decade behind* other industries in adopting technologies that would help with customer engagement.

-The Digital Transformation Race Has Begun, Virtusa Corporation

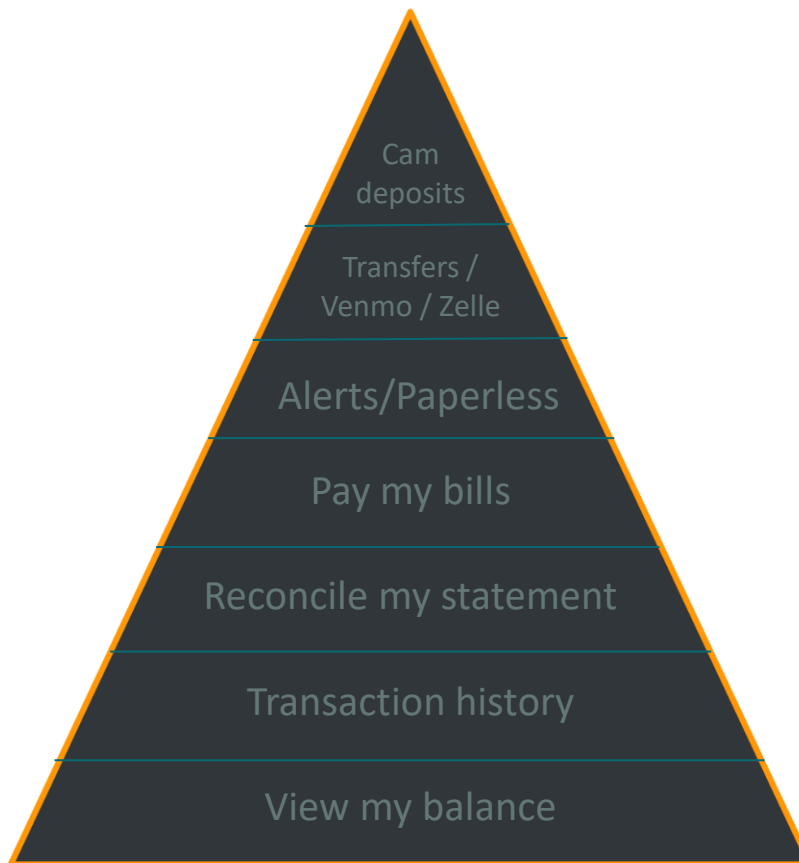
Digital Adoption Contrast – Bringing Consumers “Up the Curve”

Travel/Airline



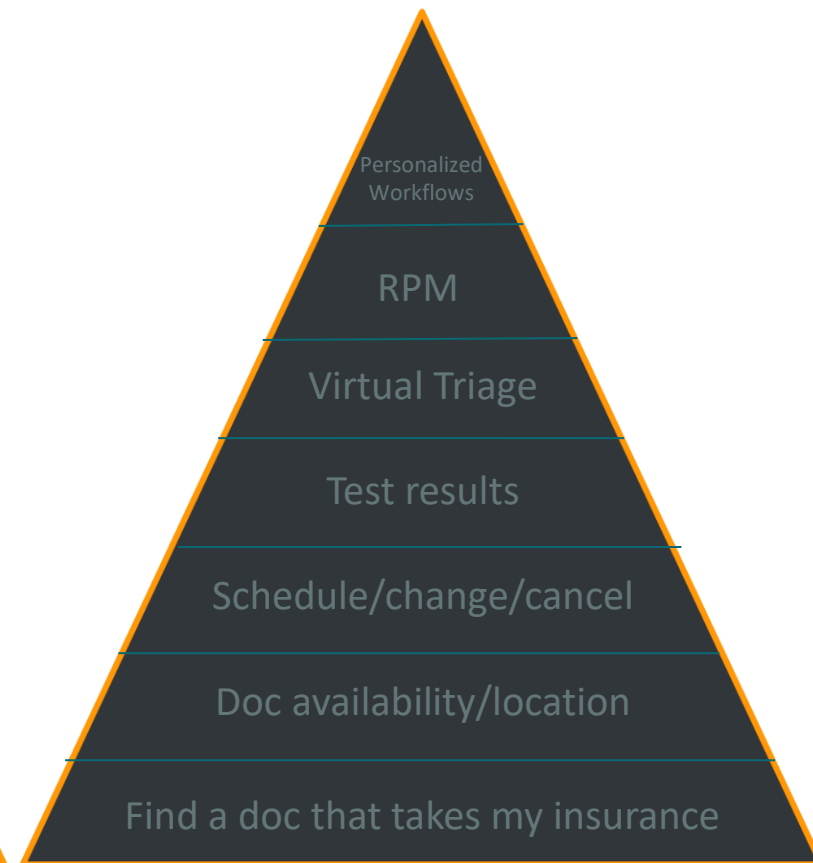
of consumers

Banking



of consumers

Healthcare



of consumers

Enter AI...

Generative AI, Conversational AI & Natural Language Processing (NLP)



Hi I'm Haxall!

I'm Envera's chatbot and I use these technologies to interact with visitors on our website.

Generative AI:

- Generative AI refers to artificial intelligence systems that can generate new content (text, music, or even videos). These systems learn patterns from existing data and use that knowledge to create new, original content.
- Examples: meeting summaries, processing claims, scheduling appointments.

Conversational AI:

- Conversational AI focuses specifically on AI systems that can engage in natural language conversations with humans.
- Systems are designed to understand human language, process it, and generate appropriate responses.
- Examples: chatbots, voice response, virtual assistants, and other applications where interacting with users through conversation is important.

Natural Language Processing (NLP):

- NLP is a branch of artificial intelligence that deals with the interaction between computers and humans using natural language.
- Example tasks: text parsing, sentiment analysis, language translation, and speech recognition.
- NLP techniques are used in both generative AI and conversational AI systems to understand and generate human language.

The Importance of Omnichannel Approach with AI

Utilize it at all touchpoints

Patient Preference



More than 46% of Americans prefer text to all other forms of communication.

(Pew Research)

Combat No-shows



81% of patients who missed an appointment forgot or got the details wrong.

(MGMA)

Improved Outcomes



Less engaged patients are 3 times more likely to have unmet health needs.

(HealthAffairs)

Cost Savings



Costs are reduced by simply freeing in-house resources typically allocated for outreach.

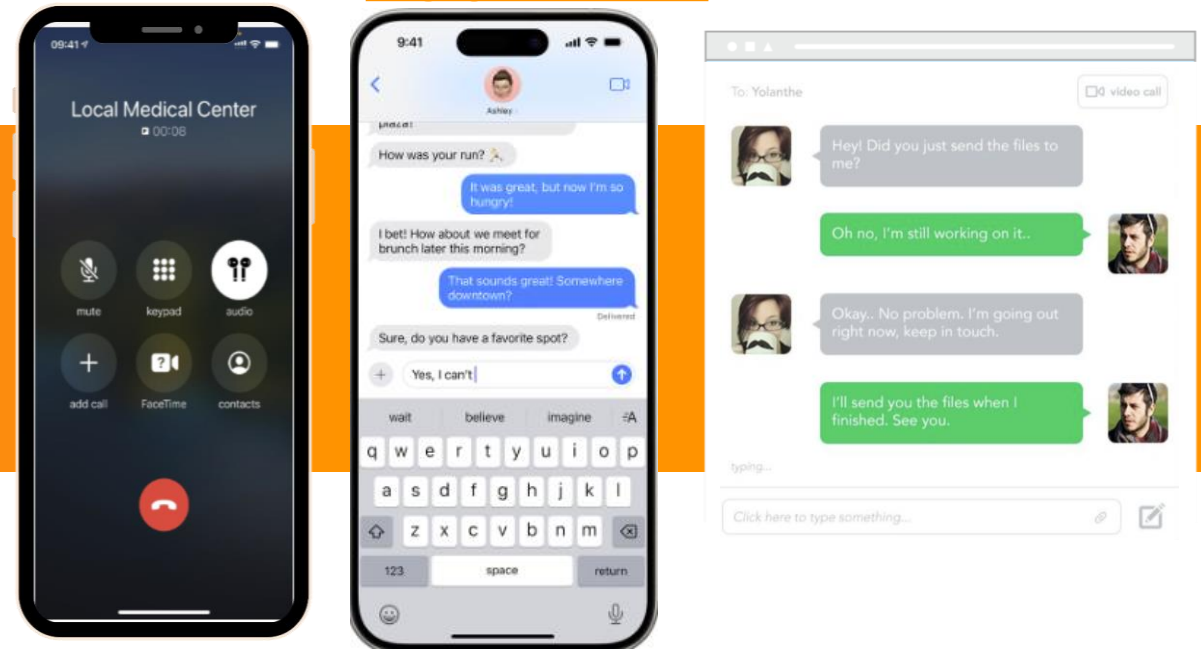
(Mayo Clinic)

Applying Conversational AI to any Inbound or Outbound Interaction

the
“anatomy”
of an
interaction



Omnichannel Approach



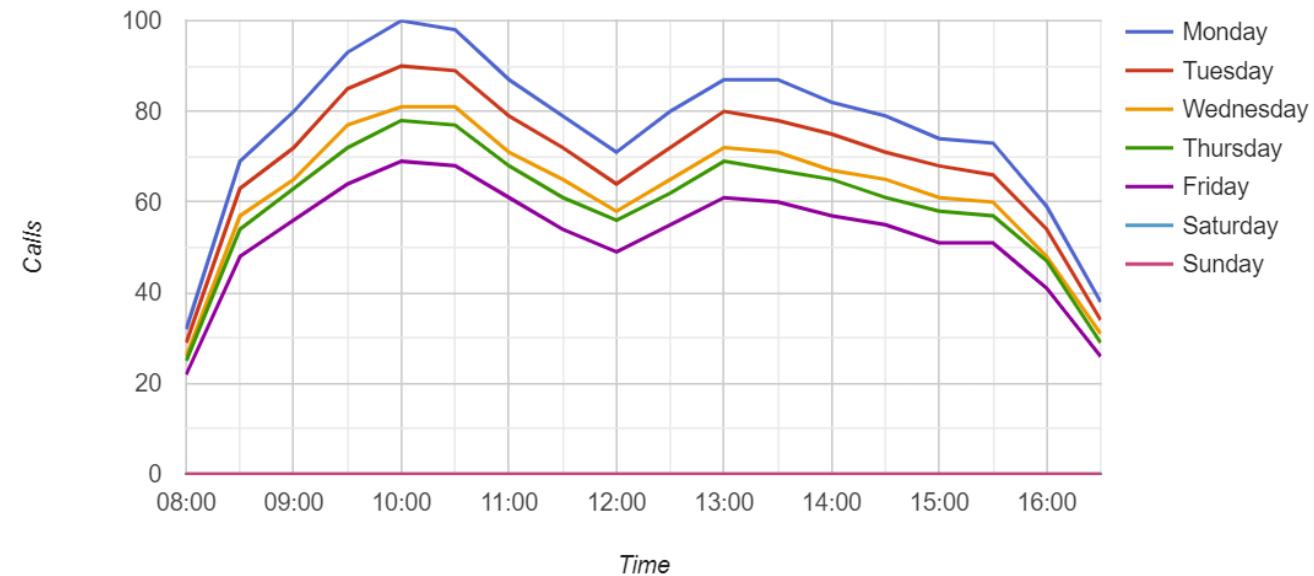
Phone, text, chat

Efficiency and Revenue Opportunities...

How Conversational AI Enhances Patient Access Centers

- **Resource Utilization translates into operational efficiency and focus on revenue**
 - Shave off the peaks
 - Generate revenue in the valleys
- **Efficiency in Handling High Volumes:**
 - **Automated Triage:** AI can prioritize and direct patient queries to the appropriate department or resource.
 - **Reduced Wait Times:** With AI handling routine inquiries, human agents can focus on more complex cases, leading to shorter wait times.
- **Accessibility:**
 - **24/7 Availability:** AI-powered contact centers can operate around the clock, ensuring patients always have access to information and assistance.
 - **Personalized Patient Experience:** AI can tailor responses based on patient history, preferences, and real-time data.

Standard Week (M-F) by Time Interval



Objective: Shave off the Peaks,
Generate Revenue in the Valleys

Omnichannel Outbound Campaigns



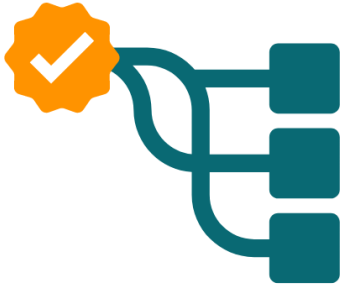
Automated systems can handle routine communications, such as sending test results, billing information, or follow-up instructions, via secure messaging or conversational AI.

Outbound communications contribute to revenue generation:

- Reducing no-shows with multi-channel and patient specific reminders
- Promoting preventive care and screenings
- Encouraging rescheduling of missed or canceled appointments
- Reminding patients about outstanding balances
- Promoting high-value services
- Facilitating insurance and financial clearance
- Follow-up after discharge or treatment (readmit rates)
- Promoting telehealth or virtual care options
- Payment plans and financial assistance
- Reactivating pre-lapse /lapse patients

Patient Access AI – Patient Facing Coupled with Actionable Insights

Patient Authentication & Call Routing



Automated Resolution / Call Deflection & Intent Determination



Call Analysis & Quality Review



Features	<ul style="list-style-type: none"> • Patient Authentication • Call Routing (Replaces IVR) 	<ul style="list-style-type: none"> • Call routing and deflection • Auto-disposition post-call • Multi-level dispositioning 	<ul style="list-style-type: none"> • 100,000 minutes of call analysis • AI learnings from call analysis
Benefits	<ul style="list-style-type: none"> • 20% reduction of overall agent handle time on average • Improved patient experience • Automates compliance efforts, minimizing the likelihood for human error 	<ul style="list-style-type: none"> • Deflection of routine low-touch calls • Auto-identification of call type (primary to tertiary) • Preserves agents for patient interactions that require greater personalization 	<ul style="list-style-type: none"> • Potential for guideline ingestion • Insights into patient demographics and need • Enhanced quality scoring • Improved agent performance • Quality control as well as sentiment analysis

Reality of a “Digital-First” Access Experience

90% of patients say they want access to digital scheduling tools



- 80% of healthcare organizations that offer online scheduling see less than 20% participation from patients.
- Some surveys indicate less than 10% of healthcare appointments are booked online.
- Of patients who attempt to book online, 70% of are routed to a contact center agent to complete their request.

Sources:

Hyder, B., & Spiegel, S. (2021, December 9). *The Trust Gap: Salesforce finds only 23% of consumers completely trust the Health Industry*. Salesforce.

Health Systems prioritizing self-scheduling solutions to improve patient access. The Center for Connected Medicine. (2023, November 15).

Anderson, D. (2024, February). 42 statistics healthcare marketers need to know in 2024. Invoca. "2.4% of healthcare appointments are scheduled online." from Accenture

Wright, G. (2022, November 14). Notable survey: 61% of patients skip medical appointments due to scheduling hassles. Business Wire.

Real World Example:

Health System (~\$2.0B)

5 acute hospitals

50+ clinical practices

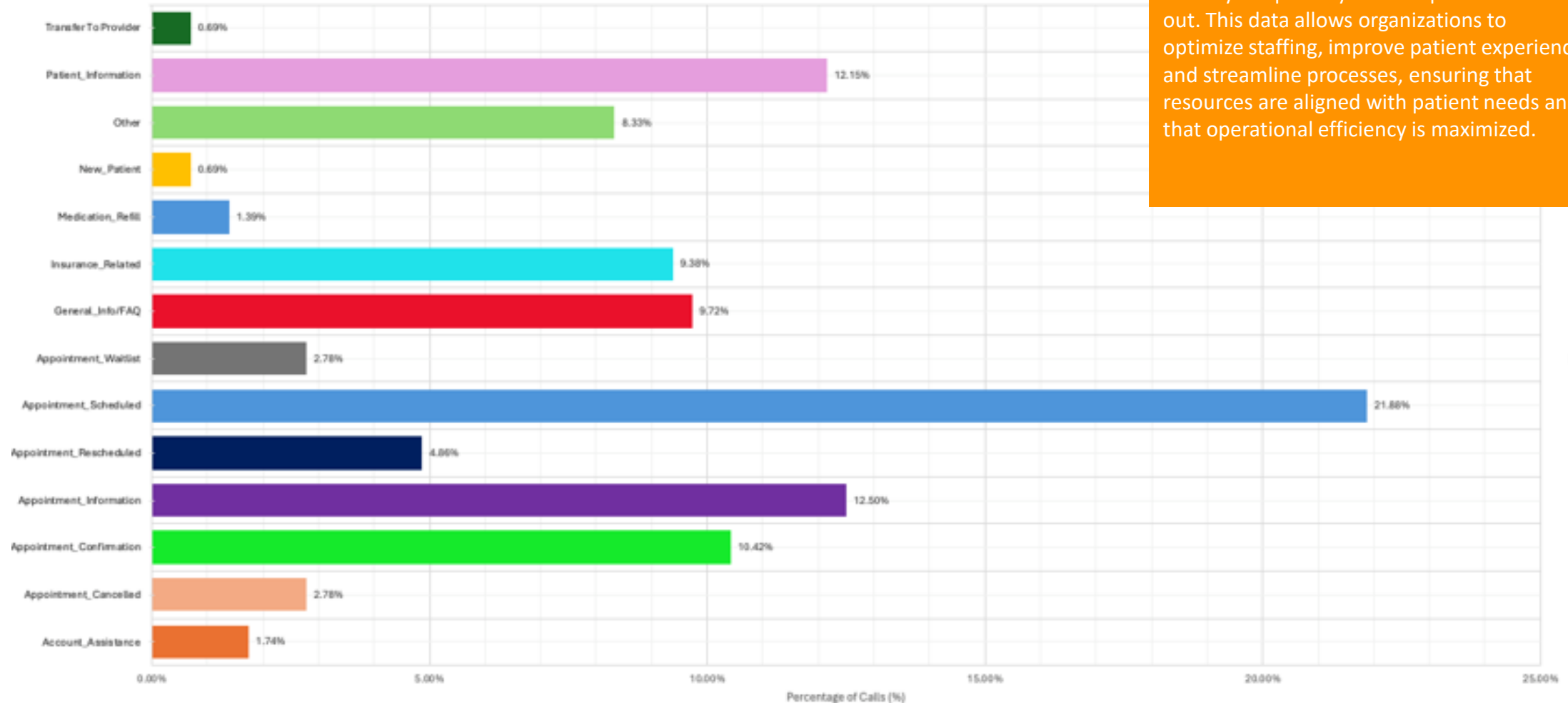
2K+ physicians

Call Analytics (“Utterances”)

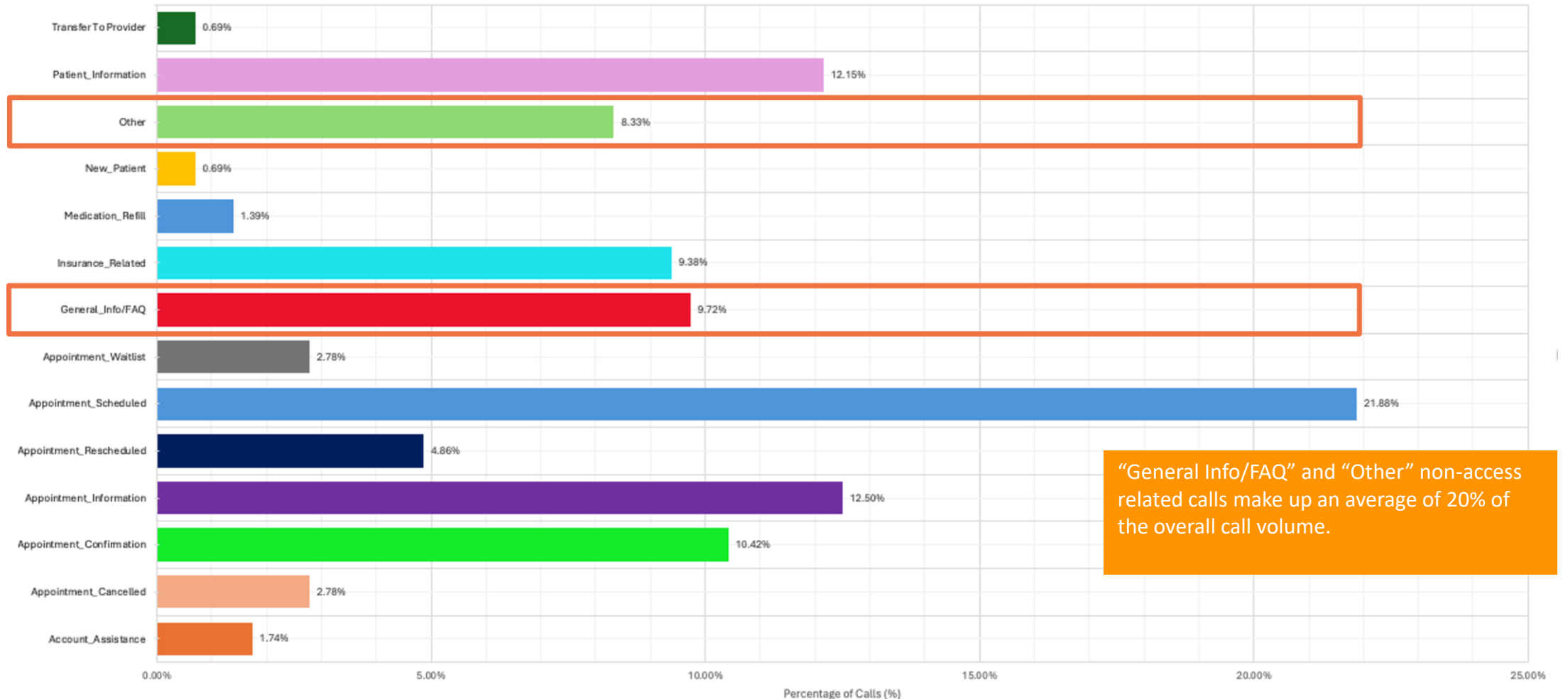


Call Analytics

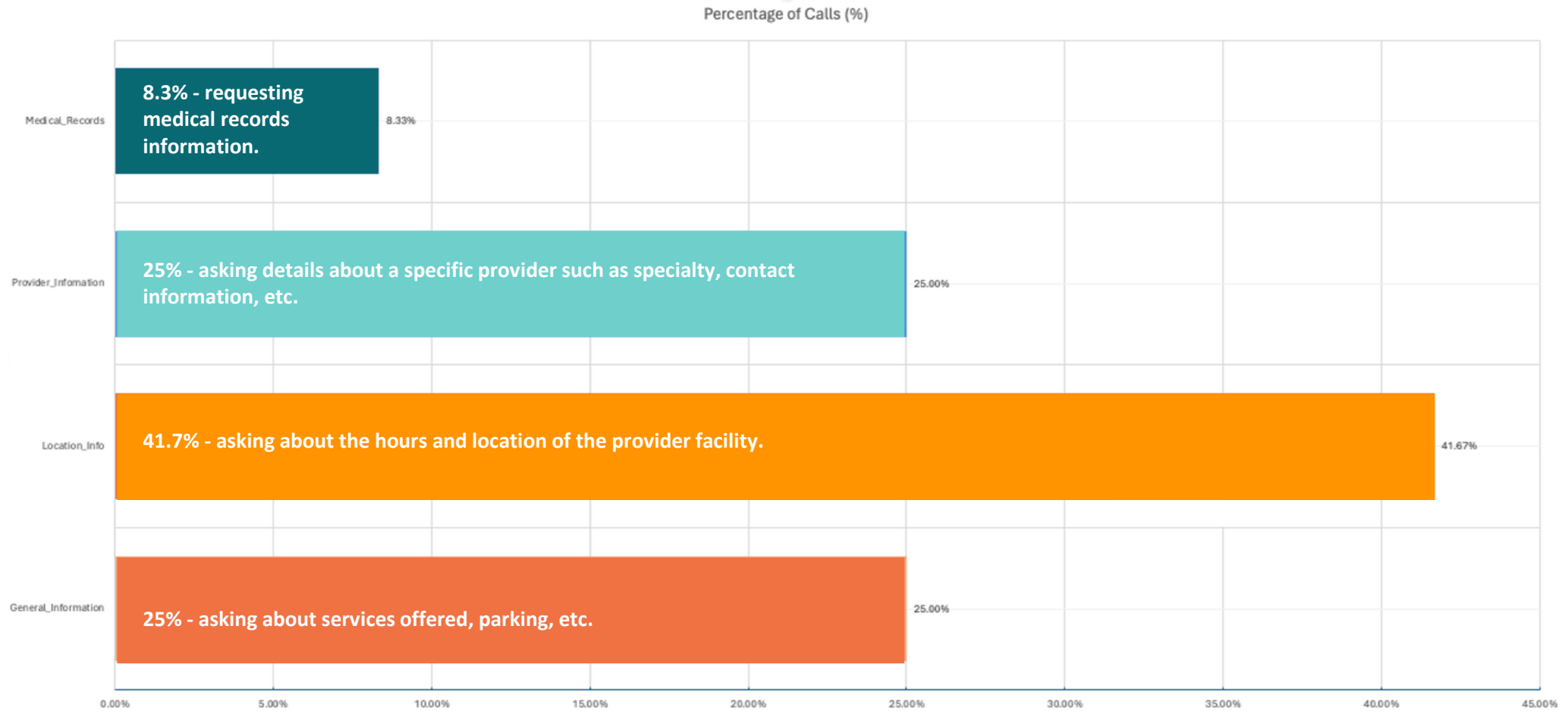
Call analytics provide valuable insights by tracking and analyzing call patterns, helping identify the primary reasons patients reach out. This data allows organizations to optimize staffing, improve patient experience, and streamline processes, ensuring that resources are aligned with patient needs and that operational efficiency is maximized.



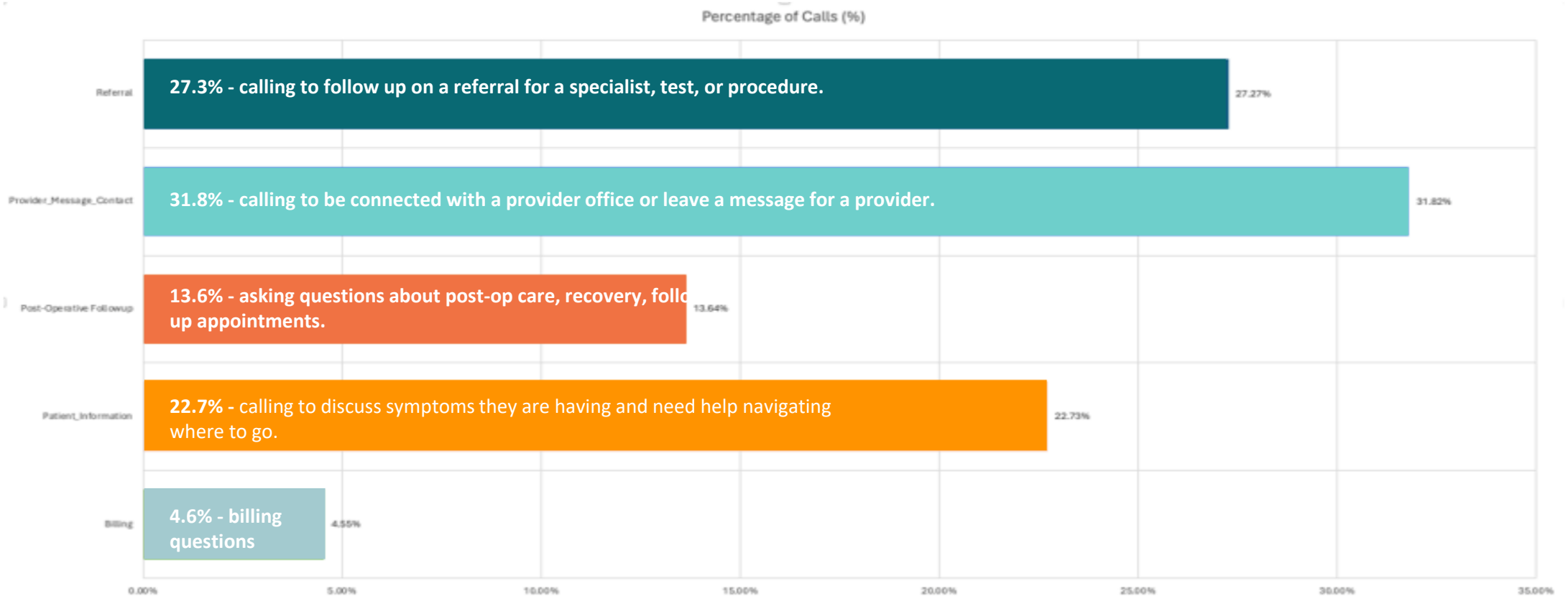
Call Analytics



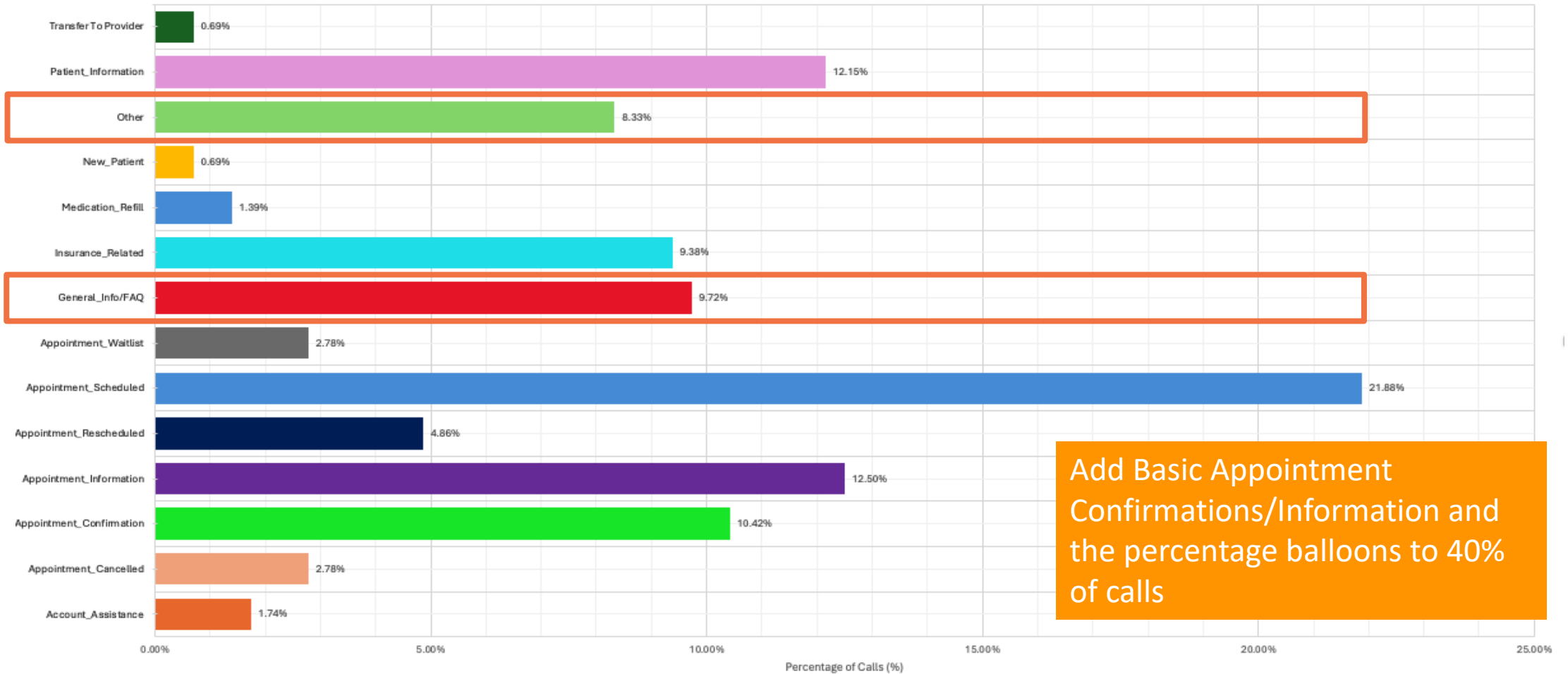
Call Analytics: Breakdown of General



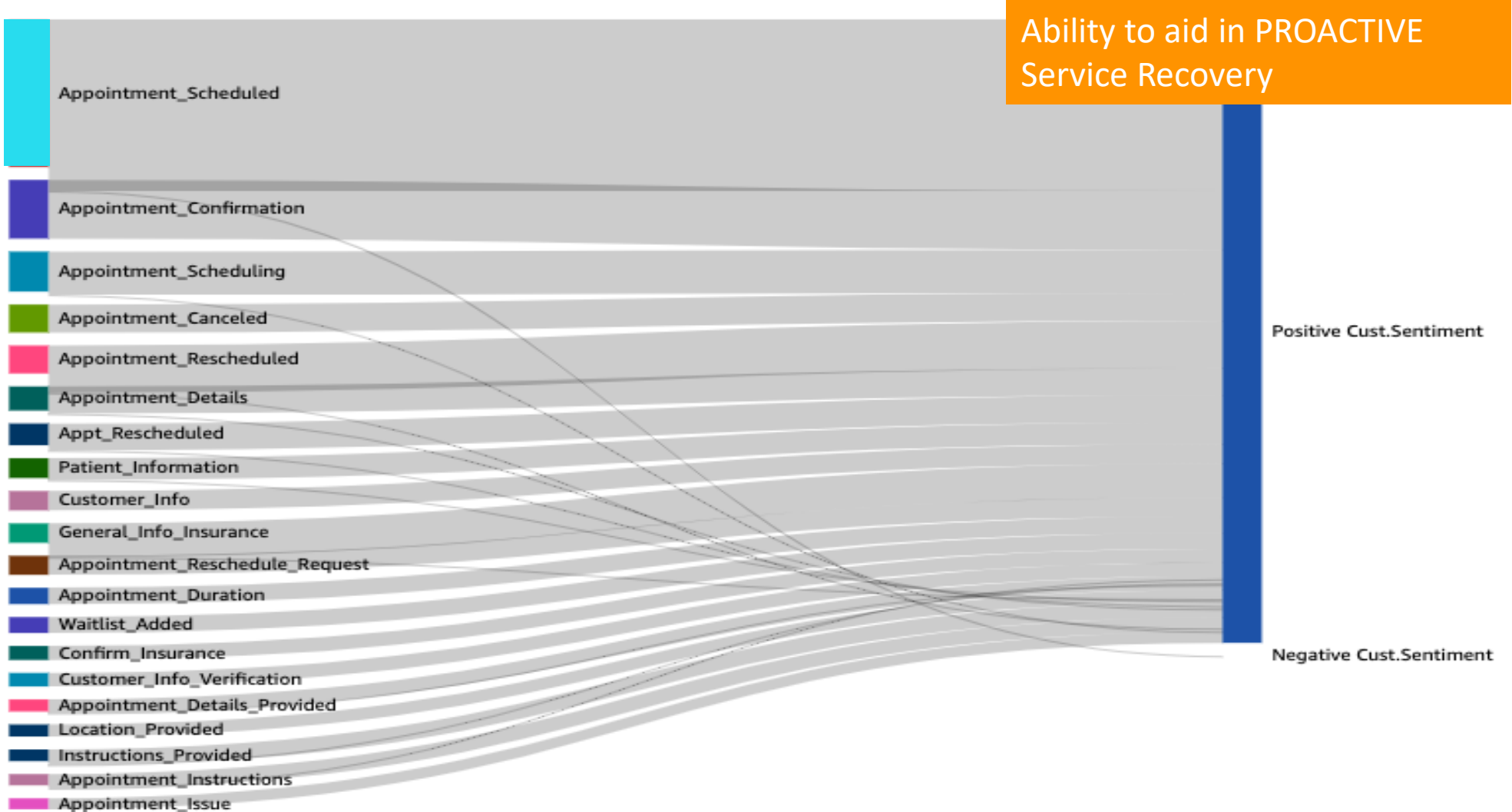
Call Analytics: Breakdown of “Other”



Analytics Drives Focused AI Workflows



Sentiment Analysis on Every Interaction



Sentiment Analysis on Every Interaction

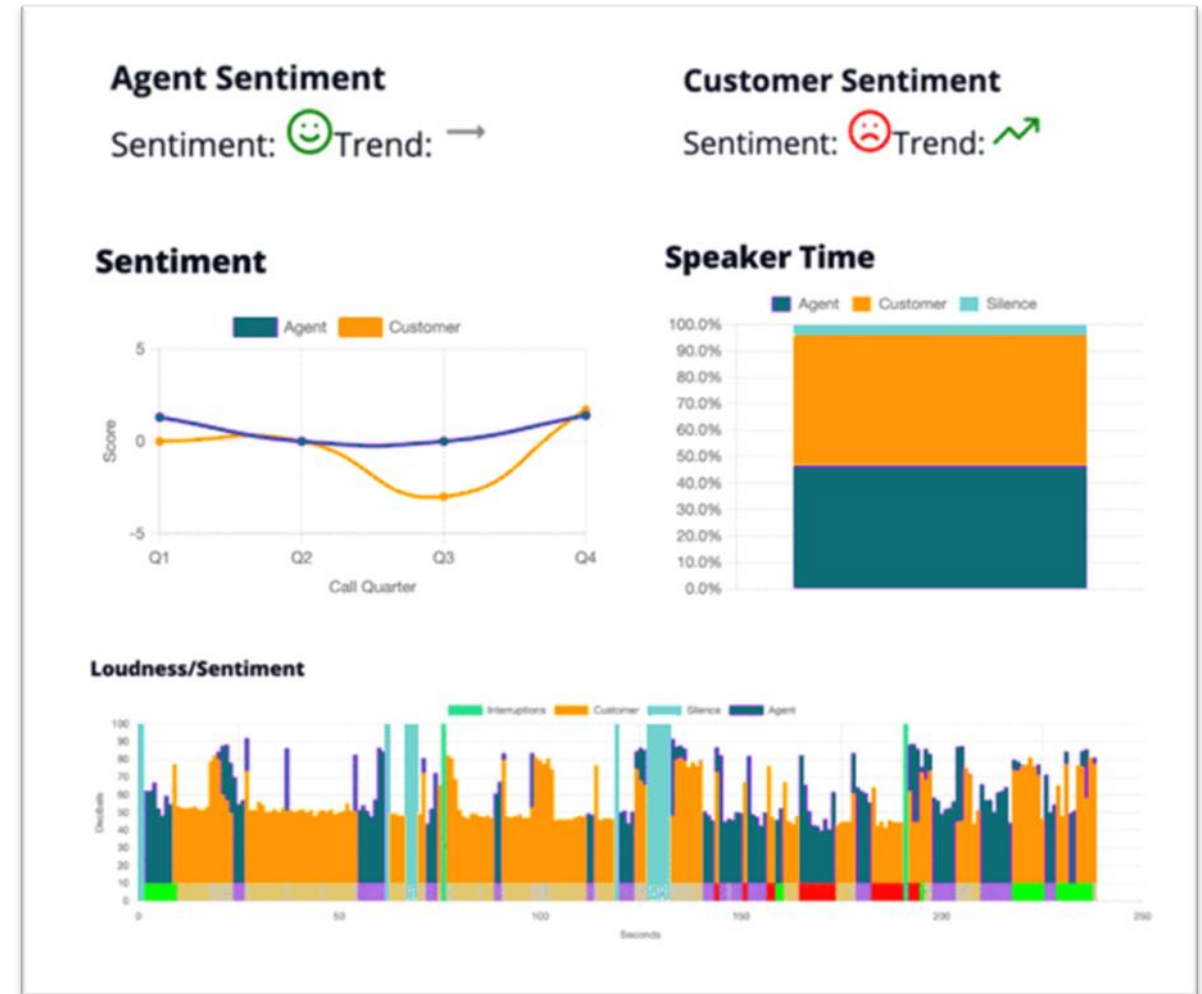


AI provides the ability to analyze every interaction.

Focusing on negative customer sentiment provides a strong opportunity to increase patient satisfaction and gain loyalty.

Quality Assurance

- Analytics that clearly illustrate the full patient experience are available in a convenient dashboard display.
- Monitor individual experiences or group calls by agent or type.
- Drill down call metrics such as speaking time, loudness, sentiment and more.




*actual dashboard screenshots, system names and some details redacted

Take the Guesswork out of “why” patients call

Automated processes relieve agents of the need to take notes or afterwork like call dispositioning.

This not only frees agents to handle more calls but also minimizes the likelihood of human error.

More detailed call dispositioning offers better insights into your organization and patient needs. 

Categories

Primary: Appointment_Scheduling
Secondary: General_Info_Insurance
Tertiary: General_Info_Contact

Conversational AI Results After 8 Weeks

Actual Results across 1) Primary Care, 2) Pediatrics, 3) Geriatrics and 4) Dermatology Service Lines

Key Performance Indicator (KPI)	Measure
Interactions Fully Automated (%)	~9%
Patients Fully Authenticated via Conversational AI (%)	54%
Overall Average Handle Time (AHT) before Conversational AI (mm:ss)	5:31
Overall Average Handle Time (AHT) after Conversational AI (mm:ss)	4:27
Average Handle Time (AHT) decrease (mm:ss / %)	1:04 / 19% decrease
Patient Satisfaction Scores	95.1%
Error Rate	0.08%

Patient Access AI “Triple Benefit”

Increased Patient Experience

Positive patient experiences lead to higher loyalty and referrals.

Easier access to information and services drives up patient engagement and utilization rates.

Faster response times and personalized care lead to higher patient satisfaction scores.

Accessibility: Patients can access support whenever they need it, regardless of time zones/holidays.

Consistency and Accuracy: AI provides consistent, accurate information, reducing the chances of human error.

Increased Revenue

- **Resource utilization on revenue generating opportunities. Examples:**
 - Next 72 hours of schedules (wait lists, bump lists)
 - Lapse / Pre-lapse
 - Integration with digital marketing initiatives
 - Population health
- **Data-Driven Revenue Strategies:**
 - Identify opportunities to offer additional services or products to patients.
 - Predictive Analytics for revenue optimization: forecast demand and optimize scheduling and resource allocation.

Lower Cost/High Efficiency

- Reduction in labor costs while enhancing operational productivity for routine tasks and direct resources where they are most needed, reducing waste and inefficiency.
- Scalability: AI to easily scale operations to meet increasing patient demands without proportionally increasing staff (whether centralized or decentralized).
- Automation of routine tasks: AI handles repetitive tasks, reducing the need for large contact centers.
- Faster Query Resolution: Reduced call durations and faster issue resolution lower operational costs.



More Questions? Reach out!

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