



WHITE PAPER

Integrating AI and Automation in Healthcare Scheduling

Discover the role of artificial intelligence (AI) and automation in healthcare contact centers, focusing on enhancing patient experience, reducing operational costs, and improving accuracy in patient communication and scheduling.



The rise of AI in healthcare has definitely caused a shift in the way healthcare is delivered. However, when it comes to its adoption in different areas, healthcare professionals have different opinions on how AI actually benefits patients and providers.

59%

of healthcare professionals believe that AI delivers **significant cost-effective services.**

51%

of professionals believe that they will **achieve their goals faster by using AI algorithms.**

37%+

of professionals **want to use AI tools to assign codes for accurate diagnosis, facilities, and procedures.**

Source: HealthITAnalytics



AI in healthcare operations

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While the adoption of AI in healthcare scheduling and operations has been slow, with some questioning its true potential, a growing body of evidence suggests that these technologies can bring significant benefits.

A study on AI and machine learning (ML) applications highlights how these technologies can reduce the burden on healthcare providers, enhance patient satisfaction, and offer more patient-directed care. **Specifically, AI-powered systems are being used to optimize scheduling, reduce missed appointments, and improve overall efficiency for medical practices.**

According to the study [1], outcome measures for AI implementation include a range of scheduling improvements, such as **reducing double-booking volumes, missed appointments, and service underutilization.** Additionally, AI helps allocate resources more effectively by shortening wait times, improving disease-type matching, and increasing schedule efficiency. Other benefits observed include better revenue management, higher new patient volumes, and accurate predictions for visit requests, examination lengths, and surgical case times.

1. Dacre R.T. Knight, Christopher A. Aakre, Christopher V. Anstine, Bala Munipalli, Parisa Biazar, Ghada Mitri, Jose Raul Valery, Tara Brigham, Shehzad K. Niazi, Adam I. Perlman, John D. Halamka, Abd Moain Abu Dabrh, Artificial intelligence for patient scheduling in the real-world health care setting: A metanarrative review, Health Policy and Technology, Volume 12, Issue 4, 2023, 100824, ISSN 2211-8837, <https://doi.org/10.1016/j.hlpt.2023.100824>.



Benefits of AI-driven Scheduling for Operational Efficiency

AI-driven systems offer a personalized approach to patient engagement. Through sophisticated algorithms and NLP, AI can understand and respond to patient queries with a high degree of accuracy. This leads to:

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Enhanced Patient Experience

AI can analyze patient data to offer tailored recommendations and reminders, improving the overall patient experience and adherence to treatment plans.

Reduced Call Wait Times

Automated systems can handle routine inquiries and tasks, significantly reducing wait times for patients who need to speak with a human representative.

Operational Efficiency

Automation reduces the need for manual intervention in routine tasks such as appointment scheduling and patient follow-ups, leading to lower labor costs.

Improving Accuracy in Patient Communication and Scheduling

AI systems can identify discrepancies and inconsistencies in patient data, ensuring that scheduling and communication are accurate and reliable.

A blurred background image of a call center with several employees wearing headsets. A large, white, stylized number '04' is overlaid on the right side of the image.

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Overcoming Barriers to AI Adoption in Healthcare Scheduling

High Initial Investment

The cost of implementing AI technology can be prohibitive for some healthcare providers. However, this is often offset by long-term savings and efficiency gains.

Integration Challenges

Integrating AI with existing systems and workflows can be complex. Healthcare providers need to invest in proper training and change management to ensure smooth adoption.

Data Privacy Concerns

Ensuring that patient data is protected and compliant with regulations like HIPAA is crucial. Robust security measures and clear data management policies are essential.

Resistance to Change

There may be resistance from staff who are accustomed to traditional methods. Clear communication about the benefits and support during the transition can help mitigate this resistance.

What Will Define the Role of AI in Healthcare

According to a poll conducted by the Medical Group Management Association (MGMA), at the beginning of 2024; positive outcomes, innovation and convenience will determine the role of AI in Healthcare.

✔ More than half (58%) of respondents pointed to positive outcomes.

✔ 30% said innovation would be the defining trait.

As healthcare organizations strive to provide better care while containing costs, the adoption of AI in patient support not only improves operational efficiency but also fosters a more patient-centric approach, one where healthcare providers can focus more on delivering high-quality care, knowing that their scheduling systems are optimized for both patients and staff.



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Real-world Examples of AI in Healthcare

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Pax Fidelity, an AI-enabled protocol identifier, serves as a prime example of how AI can enhance patient support in healthcare contact centers. Implemented by GeBBS, Pax Fidelity streamlined the process of translating medical notes into CMS standardized CPT-ICD protocols. Key outcomes included:

Performance Metrics Improvement

Calls per Hour (CPH)

15.83%

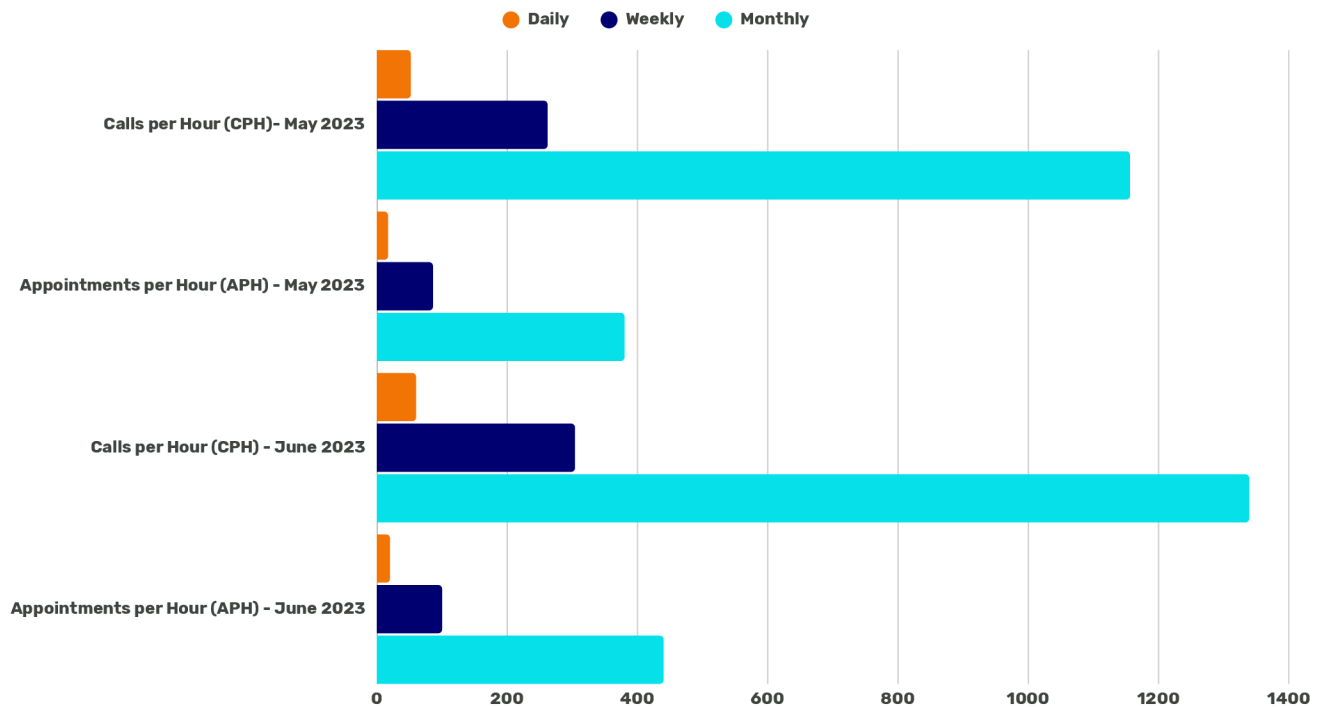
The increase in CPH from 6.57% to 7.61% signifies a more efficient handling of calls, contributing to a higher throughput.

Appointments per Hour (APH)

15.74%

The rise in APH from 2.16% to 2.50% indicates enhanced scheduling capabilities, allowing the client to manage more appointments effectively.

Highlight



Integrating AI and Automation into Patient Support and Scheduling is no Longer a Futuristic Vision but a Tangible Reality.

The transformative potential of AI and automation in enhancing patient scheduling and support highlight how these technologies can address critical challenges faced by healthcare organizations today.

Medical group practice leaders, as noted in the latest MGMA poll, recognize these opportunities and are increasingly seeking AI tools to overcome their most pressing challenges. The integration of AI in healthcare scheduling and patient support presents a promising solution to these challenges, offering a pathway to more efficient, effective, and patient-centered care.

In an increasingly complex healthcare environment, healthcare organizations can position themselves at the forefront of innovation and deliver superior patient care just by taking a few proactive steps to include AI in their existing processes.

- AI tools offer the capability to automate and streamline patient outreach, smart scheduling, and front office tasks. This is particularly crucial in a labor market where hiring and retention pose significant challenges. Reducing the time staff spend on routine tasks helps healthcare organizations to reallocate resources to more value-added activities and improve overall operational efficiency.
- EHR-embedded ambient AI functionalities extend beyond simple transcription of visits. These advanced tools are designed to assist in drafting in-basket responses and chart summaries, further reducing the administrative burden on clinicians. This enables healthcare professionals to focus more on patient care rather than administrative tasks.
- AI helps mitigate the documentation demands placed on busy clinicians through workflow and documents-intake automation, something that not only improves clinician satisfaction and productivity but also enhances the quality of patient care.





Ready to evaluate your own scheduling performance? Explore how outcome-based scheduling can lower cost and increase capacity.

Explore GeBBS's Healthcare Scheduling Solutions

About GeBBS Healthcare Solutions

GeBBS is a global revenue cycle management (RCM) company based in Englewood Cliffs, NJ. We have offices in Los Angeles and Baltimore and over 2,000 employees globally. We provide Multi-Specialty Medical Coding services to some of the largest hospitals nationwide. We work with clients to seamlessly support their Inpatient and Outpatient medical coding requirements.