



ROBOTIC PROCESS AUTOMATION (RPA)

# **Revolutionizing** Medical Management and Billing Processes with RPA

Disruption in healthcare management can be traced to the advent of electronic health records in the 1980's, when EHRs began to replace paper patient records. Today, healthcare providers have a plethora of digital tools to manage patient care and revenue cycles. While EHR's value is the ability to capture - and share - patient information electronically, it's practice management and billing software that brings the much-needed accuracy and automation to administrative tasks. Patient intake and appointment scheduling, billing, processing claims, revenue cycle management analytics and continuous improvement all benefit from what's known as Robotic Process Automation (RPA).

**PHIMED was among the first to leverage robotic process automation within their medical billing system. Users of the company's flagship solution, PhyGeneSys, discovered a new level of accuracy and efficiency in all workflows, while simultaneously meeting interoperability, transparency, and security requirements. RPA in some form or another is now featured in virtually all medical practice software.**



# Understanding RPA In Healthcare

Robotic Process Automation (RPA) is a methodical software that automates routine tasks and processes. RPA uses artificial intelligence to mimic human actions and RPA automate repetitive tasks. While RPA is being deployed across all industry sectors, the healthcare industry, with its growing complexity and need for cost containment, is an ideal benefactor of RPA.

Robotic Process Automation in the healthcare market is experiencing significant growth, largely due to continuous technological advancements in electronics. The rise in consumer electronics, such as laptops, digital cameras, and music players, further propels this growth. Furthermore, the incorporation of advanced infotainment, navigation features like GPS, and the swift emergence of 5G network infrastructure, paired with high-speed internet, accentuates this upward trend.



The surge in RPA in healthcare comes from the increasing need to automate claims and process management. While RPA promises a steep growth trajectory, primarily from its expanding user base in large enterprises, its nascent stage presents challenges. These include organizational restructuring when implementing RPA and a lack of clarity on integrating business processes with RPA.

With organizations expanding and customer management growing complex, RPA can offer the healthcare sector reliable desktop automation for a range of repetitive tasks. This RPA boom is anticipated to help organizations optimize numerous backend operations, paving the way for next-gen hospital experiences and the capacity to serve a large influx of patients. As vendors concentrate on deploying bots for varied tasks, the healthcare sector is investing in process automation software to enhance management capabilities and secure a larger market footprint.

# PHIMED's RPA Journey



## PhyGeneSys

To some, RPA may be viewed as 'new' and marketed as a separate technology added to established management and billing software. PhyGeneSys, however, was developed with RPA as fundamental to the solution, not as an add-on feature. RPA is in the DNA, so to speak, of the PhyGeneSys system, which now boast fourth generation of machine learning upgrades.



RPA works across the medical organization, leveraging the interoperability of electronic medical records, medical imaging systems, patient portals, and external data sources, such as insurance databases and government health registries. Any information that is not yet digitized, including paper patient intake forms, is converted by optical character recognition (OCR). RPA automates tasks such as patient registration, appointment scheduling, insurance verification, coding, billing, and claims submission with remarkable speed and accuracy.

PHIMED's RPA Journey



# RPA's Impact On Medical Practice Management

Robotic Process Automation (RPA) has been progressively integrated into medical practice management, offering significant benefits. In addition to increasing accuracy of data entry, RPA automation frees up time and resources for healthcare staff, allowing them to focus on critical tasks, which leads to a more rewarding career as well as more dynamic practice culture.

## Impact On Practice Management

### Efficiency & Cost Savings



RPA minimizes administrative mistakes and cuts time spent on routine tasks. 91% of health systems target enhanced operational efficiency with RPA, and 82% aim for cost cuts. This tech also curtails resource spending, adding value to medical management.

### Enhancing Patient Interaction



Together with AI, RPA boosts patient engagement and ensures better appointment adherence without extra manual input, leading to smoother communication and streamlined processes.

### Boosting Revenue



RPA helps in maximizing revenue due to superior revenue cycle management. Automated processes result in better patient registration, efficient reimbursements, and fewer billing mistakes. This results in improved cash flow and increased revenue for healthcare providers.

## RPA In The News

[How RPA Can Improve Clinical Outcomes](#)



[RPA in the Healthcare Industry](#)



[Value with Revenue Cycle Process Automation](#)



# RPA's Role In Billing Processes

RPA can minimize billing errors and discrepancies in medical billing. By automating manual tasks such as data entry, RPA can reduce the risk of errors and ensure that billing is accurate and compliant with regulations, resulting in faster reimbursements and improved revenue cycle management.



## RPA Reduces Processing Time Significantly

According to an [article in MAGMA](#), shifting from manual tasks to an automated process workflow will reduce time spent per task from minutes to fractions of a second. Case studies show that manually posting payments and denials takes 2:10 minutes per claim, compared to a rate of 2 seconds per claim with Robotic Process Automation (RPA). Included in this 2 second interval is also the time it takes robotic billing software to process a claim, compared to 2 minutes to process manually.



## Accelerating Claim Status Follow-up, Denials and Appeals

PhyGeneSys RPA bots pull curated claim status information directly from the payer's web portal. The 277 details can then be prioritized to reduce accounts receivable days and improves staff utilization by allowing more timely intervention on any claim follow-up and potential denials.

[VIEW INFOGRAPHIC](#)



Role In Billing Processes



# Benefits Of RPA In Healthcare

While RPA improves efficiency, reduces costs, and enhances accuracy, there are additional benefits as well.

- **Data analytics**  
Automated data analysis can lead to better decision-making and early detection of epidemics, improving treatment plans, and staffing decisions.
- **Risk mitigation**  
Reduces the chance of human error, indirectly mitigating risks associated with legal challenges or loss of reputation.
- **Employee satisfaction**  
Automating mundane tasks leads to increased job satisfaction, reducing turnover and associated costs.
- **Competitive advantage**  
Healthcare providers that utilize RPA can potentially deliver better service at a lower cost, making them more competitive.
- **Regulatory compliance**  
RPA can assure adhere to current laws and standards, maintaining compliance without additional human oversight.
- **Scalability**  
RPA systems can be easily scaled to automate more tasks or more complex workflows as the healthcare institution grows.
- **Transparency**  
Automation of billing, claims processing, and data management can increase transparency, which is increasingly demanded by patients.
- **Enhanced data security**  
RPA can be designed with stringent data security measures, enhancing the security of sensitive patient information.

Benefits In Healthcare

RPA automation allows healthcare providers to focus on delivering value-based care, which emphasizes patient outcomes over volume of services provided.





# Choosing The Right RPA Solution

When researching an RPA solution, consider factors such as **scalability**, **customization**, and **ease of use**. Look for solutions that align with your organization's workflow and can seamlessly integrate with your existing systems. Engage with automation technology providers and request demonstrations to see how their solutions address your unique requirements. Understand the level of support and training they offer to ensure a smooth transition and successful implementation.

Implementing RPA might seem a bit intimidating to practice managers, especially those who work with a complex network of data sources. That's why it's important, if not imperative, that the firm hired for RPA implementation has expertise in medical revenue cycle management as well as RPA technology.

Look for those with domain expertise in:

- CPT
- ICD and HCPCS codes
- Medicare and Medicaid

**The PHIMED team offers years of expertise that can be invaluable to your RPA implementation and rapid ROI.**

Choosing The Right Solution





# Overcoming Resistance And Challenges

RPA should be viewed as a tool to augment healthcare professionals' work, rather than replace them. By automating manual tasks, healthcare professionals can focus on high-value activities such as patient care.

**In fact, according to *Becker's Healthcare*, 68% of survey respondents indicated they would most likely redeploy staff as a result of RPA, with only 4% indicating a staff reduction.**

A survey by the [American Health Information Management Association \(AHIMA\)](#) found that 40% of medical coding professionals reported experiencing burnout, with 25% reporting that they were actively seeking new employment as a result. AHIMA also found that 50% of respondents reported difficulty in filling coding positions due to a shortage of qualified candidates. What's more, a recent Accenture study projected that the shortage of medical coders would reach 32% by 2025, with demand for coders outpacing supply.



Overcoming Challenges

Despite these findings, practice managers are sometimes reluctant to explore RPA for fear of displacing long-time employees. This is a management choice, certainly. Yet implementing RPA is an excellent strategy to reduce workload and improve work-life balance for medical coders. By using RPA, medical practices can improve their operations' efficiency and accuracy while freeing up staff to focus on higher-value tasks that require human expertise and decision-making.

# RPA's Future In Healthcare



The global AI in medical coding market size was estimated at \$2.06 billion in 2022 and is expected to grow at a compound annual growth rate (CAGR) of 13.7% from 2023 to 2030.

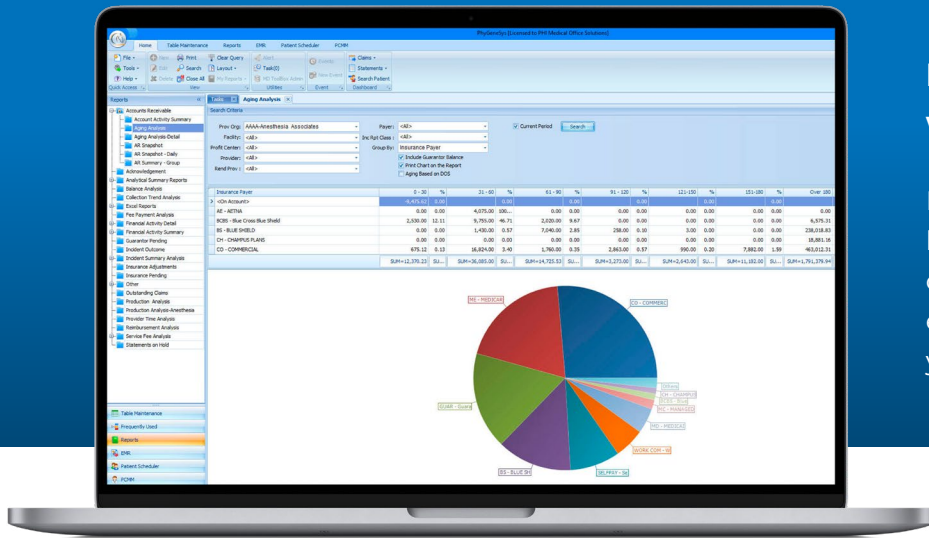
The market is experiencing growth due to several factors, including a growing demand for these services, a standardized language to minimize insurance claim fraud and misinterpretations, and a strong demand for improving efficiency in billing and coding procedures.

As AI technology advances, the industry can expect further improvements in accuracy, efficiency, and integration capabilities. One area of development is the incorporation of natural language processing and machine learning algorithms. These advancements will enable automation systems to better understand and interpret complex medical documentation, leading to even more accurate coding and reduced errors.

RPA's Future



# Transform Medical Management And Billing With PhyGeneSys RPA



Embrace the power of automation with PHIMED's PhyGeneSys software.

By incorporating PhyGeneSys into your healthcare operations, you can unlock a world of potential benefits that enhance both your efficiency and the quality of care provided to your patients.

## PhyGeneSys automated system can yield significant cost savings for medical practices.

The advantages of heightened efficiency, enhanced accuracy, and improved compliance position PhyGeneSys as the number one choice for medical practices aiming to streamline operations and elevate patient care.

PhyGeneSys brings a profound shift to the roles of medical coders and support staff. By alleviating them from the burdensome, repetitive, and often career-altering tasks associated with extensive record keeping required by payers and governing bodies, the system enhances workforce satisfaction and reduces turnover. This technology not only reduces the necessity for hiring and training staff but also minimizes expenditures related to maintaining and upgrading legacy systems.

For a deeper understanding of how PhyGeneSys RPA can revolutionize your medical management and billing processes, we invite you to reach out to PHIMED today.

Embrace efficiency and elevate the future of healthcare operations with our innovative automation solution.

PhyGeneSys RPA



# Contact Us

Learn more about how RPA can revolutionize medical management and billing processes today!



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