

Industry Pulse

Putting Patients First: Building Partnerships That Elevate Your Care

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Key Discussions

01

How AI Predictive Analytics is Transforming Healthcare and Reducing Costs

TechBullion

02

The 3-Pronged Strategy to Boost Patient Engagement with Your CRM

MedNews City

03

More Than 20% of Healthcare Organizations Changed Senior Leadership After Cyberattack: Survey

Healthcare Dive

04

How to Choose the Right Distribution Partner

MedCity News

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To deliver optimal patient care, today's healthcare organizations rely on a number of partnerships and products — from distribution and shipping services to CRM platforms to cybersecurity software providers and beyond.

As such, it's becoming clear that forging strong vendor relationships and finding smart technical solutions are crucial to achieving positive healthcare outcomes and smooth-running operations.

In this Industry Pulse report, you will learn:

- Three ways a strong CRM system can help improve patient interactions

- The benefits of AI predictive analytics — including reduced costs, early disease detection, advanced patient monitoring, and more
- The latest consequences of cyberattacks in the healthcare space, including delays in patient care, financial losses, leadership changes, and beyond
- How to choose a distribution partner that understands your patient-product mix and can help you mitigate costs and manage risks

Get ready to understand how the right partnerships and products can make all the difference in the success of your organization — as well as in the well-being of the patients you serve.

01. How AI Predictive Analytics is Transforming Healthcare and Reducing Costs

Ethan Lee | TechBullion



The integration of artificial intelligence (AI) into healthcare has opened new frontiers for improving patient care and operational efficiency.

Among its most promising applications is predictive analytics, which uses historical data, machine learning (ML), and advanced statistical methods to forecast future trends, risks, and outcomes. This transformative technology is reshaping healthcare by enabling earlier interventions, optimizing treatment, cutting costs, and revolutionizing patient monitoring. This article provides a detailed exploration of how AI-driven predictive analytics is addressing critical challenges in healthcare, with a particular focus on improving outcomes, reducing costs, and advancing patient monitoring.

Understanding AI-Driven Predictive Analytics

Predictive analytics in healthcare leverages vast datasets, including electronic health records (EHRs), medical imaging, genomic data, and even external environmental and social data, to forecast future health outcomes. AI and machine learning enhance this process by automating the analysis, identifying complex patterns, and providing actionable insights faster and more accurately than traditional methods.

By adapting to new data, these AI systems improve their predictions over time. For example, they can forecast disease outbreaks, predict patient readmissions, or suggest personalized treatment plans. This adaptability and precision make AI-powered predictive analytics a game-changer in both clinical and operational settings.

Enhancing Healthcare Outcomes

Early Disease Detection and Diagnosis

AI-driven predictive analytics enables early detection of diseases such as cancer, diabetes, and cardiovascular conditions. For instance, ML models trained on imaging datasets can identify subtle anomalies in radiology scans, such as tumors or plaque buildup in arteries, with a higher degree of accuracy than human radiologists.

Furthermore, predictive analytics can assess genetic predispositions and lifestyle factors to identify patients at risk for chronic diseases. By detecting these risks early, healthcare providers can initiate preventive measures, improving patient outcomes and reducing the long-term burden of disease.

Personalized Medicine

Predictive analytics is the backbone of precision medicine, which tailors treatment plans to individual patient needs. AI algorithms analyze a combination of genetic, environmental, and clinical data to predict the effectiveness of specific treatments.

For instance, in oncology, AI can identify genetic markers in a patient's tumor to recommend targeted therapies. In pharmacology, predictive models can forecast adverse drug reactions based on a patient's genetic profile, helping clinicians prescribe medications with greater confidence and fewer side effects.

Reducing Complications and Readmissions

Hospitals face significant penalties for high readmission rates, and predictive analytics offers a solution. By analyzing patient data, AI can identify individuals at high risk of complications or readmissions after discharge. Healthcare providers can then design tailored follow-up plans, including regular check-ins, remote monitoring, or lifestyle recommendations.

For example, AI tools can predict exacerbations in chronic obstructive pulmonary disease (COPD) or heart failure, prompting early interventions that reduce the likelihood of hospital readmissions.

Improved Management of Chronic Conditions

Chronic diseases account for the majority of healthcare spending globally, and managing these conditions effectively is a priority. Predictive analytics supports chronic disease management by forecasting disease progression and enabling timely interventions.

In diabetes care, for example, wearable devices and AI algorithms can continuously monitor blood sugar levels and predict potential spikes or drops. Patients receive real-time alerts to adjust their diet, insulin dosage, or physical activity, preventing complications and enhancing quality of life.

Driving Cost Reduction

Optimizing Resource Allocation

AI-powered predictive analytics helps healthcare providers allocate resources efficiently by forecasting patient volumes, identifying high-risk cases, and anticipating demand for specific services. For example, during flu season, predictive models can estimate the number of patients requiring vaccination or intensive care, allowing hospitals to plan staffing and supply chain logistics effectively.

Preventing Medical Errors

Medical errors are a significant contributor to healthcare costs and patient harm. AI systems can analyze patient data, including medication history and lab results, to flag potential errors, such as incorrect drug dosages or harmful drug interactions. By reducing errors, healthcare providers can avoid costly corrective treatments and improve patient safety.

Reducing Emergency Room Visits

Emergency room (ER) visits are costly, often arising from preventable conditions. Predictive analytics can identify patients at risk of acute episodes, such as asthma attacks or cardiac events, and provide early warnings. For instance, AI-powered wearable devices monitor vital signs and alert patients to seek care before their condition worsens, reducing unnecessary ER visits.

Advancing Patient Monitoring

Wearable Technology Integration

Wearable devices, such as smartwatches and biosensors, continuously collect health data, including heart rate, blood pressure, oxygen levels, and activity patterns. Predictive analytics processes this data to detect abnormalities, such as arrhythmias or oxygen desaturation, in real time.

For example, a wearable ECG device can predict atrial fibrillation before symptoms manifest, enabling early treatment and reducing the risk of stroke. Similarly, fitness trackers combined with AI can help patients manage chronic conditions like obesity or hypertension by providing personalized activity and dietary recommendations.

Remote Patient Monitoring (RPM)

RPM has become a cornerstone of modern healthcare, particularly for managing chronic diseases and post-surgical recovery. AI-powered RPM systems use predictive analytics to track patient data remotely and forecast potential complications.

For example, in heart failure patients, AI algorithms can analyze data from weight scales, blood pressure monitors, and symptom logs to predict fluid retention or worsening conditions, prompting timely interventions. This reduces the need for hospital visits while ensuring continuous care.

Real-Time ICU Monitoring

In critical care settings, predictive analytics enhances patient monitoring by analyzing real-time data from multiple sources, such as ventilators, infusion pumps, and vital sign monitors. AI systems can predict conditions like sepsis or respiratory failure hours before they become clinically apparent, allowing clinicians to intervene early and improve patient outcomes.

Behavioral Health and Mental Wellness

AI is also making strides in behavioral health by monitoring indicators of mental health conditions. For instance, algorithms can analyze speech patterns, social media activity, or smartphone usage to detect early signs of depression or anxiety. These insights enable mental health professionals to provide timely support, reducing the likelihood of crises.

Challenges and Ethical Considerations

While AI-driven predictive analytics offers immense potential, its implementation is not without challenges:

- 1. Data Privacy and Security:** Healthcare data is highly sensitive, and breaches can have serious consequences. Ensuring compliance with regulations like HIPAA and implementing robust cybersecurity measures are essential to protect patient privacy.

- 2. Bias in AI Models:** AI systems can inherit biases from the data they are trained on, potentially leading to disparities in care. For example, if training datasets lack diversity, predictions may be less accurate for underrepresented populations. Addressing this requires careful dataset curation and continuous model evaluation.

- 3. Integration with Legacy Systems:** Many healthcare institutions rely on legacy IT systems that are not easily compatible with modern AI tools. Achieving seamless integration and interoperability is a complex but necessary task.

- 4. Ethical Concerns in Decision-Making:** AI-driven recommendations must balance automation with human oversight to maintain accountability. Clinicians should remain involved in critical decisions to ensure ethical and personalized care.

The Future of Predictive Analytics in Healthcare

The future of predictive analytics in healthcare is bright, with emerging trends pointing to even greater innovation:

- **Genomic Medicine:** AI can integrate genomic data with clinical insights to predict disease risks and recommend preventive strategies.
- **AI-Driven Drug Development:** Predictive models accelerate drug discovery by identifying promising compounds and forecasting their efficacy.
- **Population Health Management:** Public health initiatives can leverage AI to predict and prevent disease outbreaks, allocate resources, and design targeted interventions.
- **Telemedicine and Virtual Care:** Predictive analytics will enhance telehealth platforms, enabling clinicians to deliver data-driven care during virtual consultations.

Conclusion

AI-driven predictive analytics is transforming healthcare by enabling earlier detection, personalized care, cost reduction, and real-time patient monitoring. While challenges remain, addressing them with robust frameworks and ethical considerations will unlock the full potential of this technology. As healthcare systems increasingly embrace AI, predictive analytics will play a pivotal role in delivering high-quality, affordable, and accessible care to patients worldwide.

02. The 3-Pronged Strategy to Boost Patient Engagement with Your CRM

Luiz Cieslak | MedCity News



For years, patient engagement has been a top focus for healthcare leaders. But today's patients are frustrated with the overall patient experience, in no small part due to their providers' approach to communication.

In fact, it's [one of the biggest obstacles](#) to a quality patient experience — and, in turn, better patient outcomes.

Healthcare CRMs (customer relationship management systems) are specialized software systems that help healthcare organizations manage interactions with patients, streamline operations, and enhance care.

And in my experience, CRM success depends on an approach that leverages patient data and AI to support more timely and empathetic interactions.

Here I'll share a three-pronged strategy that can help you do just that.

1. Integrate Your CRM with your entire digital ecosystem

Most healthcare CRMs tout their ability to provide a 360-degree view of every patient. But that view is only as good as the data used to create it. And to gather the right data, your CRM should be integrated with your entire digital ecosystem.

At a minimum, that should include:

- EHRs and EMRs
- Scheduling software
- Your patient portal
- Billing software
- E-referral software
- Knowledge management tools

With the right integrations, you can ensure that every patient interaction feels intentional and informed. Data itself, though, isn't enough to effectively boost patient engagement. For that, your messaging has to be relevant and empathetic — aspects we'll explore further in the next two sections.

AI-Driven Digital Transformation: Applications and Benefits

To improve patient engagement, it's important to remember why patients are engaging with you in the first place. They want to manage their health — and most only want relevant information that can help them do just that.

But not all healthcare systems use CRMs to share that kind of information. I experienced that firsthand. When I tore my Achilles tendon, I interacted with two providers that had very different messaging strategies. The first one bombarded me with generic information — say, about new clinic locations or how to avoid summer injuries. But the second provider shared more tailored content, like specific exercises and tips that could help me get back to full strength.

I didn't really connect with the first provider's content. But the second provider's messaging kept me engaged and motivated throughout my recovery. Even now — long after my treatment has ended — I still find their updates valuable because they're just that relevant.

Experiences like mine are fairly common. And that means plenty of patients are likely apathetic to (if not actively turned off by) communications from their providers.

To solve this problem, make sure your CRM is equipped to help you share:

- The right information, like articles or videos to help patients manage their specific conditions
- Via the right channel based on patients' preferences (e.g., text for appointment reminders and email for long-form content or important documents)
- At the right time, for example right after a check-up based on diagnostic triggers, or in the evening after work based on message open or click-through rates

The takeaway? With more relevant content, you can keep patients engaged throughout their care journey.

3. Communicate with empathy

Patient empathy is a priority for most hospitals today. But many struggle to consistently convey empathy across their communications.

One major reason? Hospitals often have to choose between personalized messaging and messaging at scale. Many choose the latter — but that decision can easily lead to one-size-fits-all messaging that rings hollow instead of sounding supportive.

The reality is that patients often vary in their relationship to both their own medical needs and the healthcare system. For instance, consider a patient who's recently been diagnosed with type two diabetes. They'll likely need blood draws every three months to monitor their A1C levels.

But maybe the patient is ashamed of diagnosis because of the stigma. And they don't trust anyone to draw their blood after a few bad experiences. Plus, it's just hard for them to take time off to come into the office.

Empathetic communication must take factors like these into account. In this scenario, you might set up your CRM to send automatic scheduling reminders that use warm and gentle language. But you might also share a few videos to help them come to terms with their new diagnosis. Or offer tips for sitting through blood draws. And you might suggest calling your office if they need to talk about scheduling flexibility.

This approach doesn't just emphasize relevant communication — it meets patients exactly where they are in their health journey. That's huge for boosting engagement and adherence.

As for the scalability challenge, consider using Gen AI tools to quickly produce empathetic messaging across segments. For example, you

can prompt it to craft language for patients with certain chronic conditions and suggest the most useful resources to share — saving your staff loads of time.

Some CRMs already have native AI capabilities. But if yours doesn't, it may be worth exploring third-party tools that can connect to your platform. The bottom line? With the right approach and software, you can create scalable messaging that resonates.

Every patient interaction matters

A healthcare CRM is much more than a data management tool. It helps you make a strong first impression on each patient and strengthen relationships over time.

With patient outcomes on the line, the stakes of that work couldn't be higher. Every patient interaction matters. It's worth investing in the tools and capabilities you need to get things right.

03.

More Than 20% of Healthcare Organizations Changed Senior Leadership After Cyberattack: Survey

Emily Olsen | Healthcare Dive



Dive Brief:

- More than 80% of healthcare organizations [detected a cyberattack](#) on their technology infrastructure within the past year, according to a survey by cybersecurity firm Netwrix.
- The attacks more often end in financial losses for the sector. Nearly 70% of healthcare companies reported a cyberattack resulted in financial damage, compared with 60% in other industries.
- Healthcare organizations faced other consequences after cyberattacks as well. One in five said they experienced a change in senior leadership after an attack, while 19% reported lawsuits.

Dive Insight:

Cyberattacks on healthcare organizations can have serious consequences for care delivery, delaying services or forcing hospitals to send emergency cases to nearby facilities. But healthcare data is extremely valuable to cybercriminals, making the sector a prime target for hackers, experts say.

Meanwhile, the industry is also highly regulated, leading to more penalties for noncompliance and [potential lawsuits from people affected by a cyberattack](#), Ilia Sotnikov, Security Strategist at Netwrix, said in a statement.

Additionally, healthcare organizations might feel increased pressure to make executive changes in the wake of an attack to demonstrate their commitment to improving security, he added. Protected health data beaches often contain sensitive details that attract media and public attention.

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Healthcare faces more legal, leadership challenges after cyberattacks

Percent of respondents reporting a cyberattack consequence in healthcare and all industries.

Phishing, a scam where criminals attempt to trick users into installing malware or revealing information like log-in details, is the most common type of cyberattack targeting healthcare technology systems stored on premises, similar to other industries, according to the report.

Meanwhile, nearly three quarters of attacks on healthcare organizations' cloud infrastructure were caused by compromised user or administrator accounts.

“Healthcare workers regularly communicate with many people they do not know — patients, laboratory assistants, external auditors and

more — so properly vetting every message is a huge burden,” Dirk Schrader, vice president of security research at Netwrix, said in a statement. “Plus, they do not realize how critical it is to be cautious, since security awareness training often takes a back seat to the urgent work of taking care of patients.”

The industry is coming off a challenging year for healthcare security. The massive cyberattack against UnitedHealth-owned claims processor and technology firm Change Healthcare exposed the [data of 100 million people](#) and [cost its parent company \\$3.1 billion](#).

Another large attack against nonprofit health system Ascension compromised information from [5.6 million people](#), contributing to a [\\$1.1 billion net loss](#) during its 2024 fiscal year.

04.

How to Choose the Right Distribution Partner

Marc DeLorenzo | MedCity News

From manufacturing pharmaceutical and medical products to distributing them to the patients who need them, the healthcare supply chain is extensive, complex and constantly evolving.

From regulatory shifts to changing provider needs, it's more important than ever that providers forge strong partnerships with their distributors.

When choosing the right distribution partner for your organization, it's important to consider the foundation of what that relationship should look like. The distributor's mission and values should align with your institution's to create a solid basis for a lasting partnership.

Particularly important for the healthcare field, the right distribution partner should be collaborative, transparent and adaptable, with the ability to align their services to meet the needs of you and your patients. Ultimately, the right partner will work collaboratively towards your organization's goals together.



Bridging the gap between manufacturer and customer

Navigating the relationship between manufacturer and customer depends heavily on supply and demand signals, requiring a robust distribution network. Data and analytics models drive this part of a distributor's network, allowing them to identify customer needs while managing inventory proactively and efficiently.

To operate a model that maximizes that need for efficiency, the best distribution partners have successful business models. For example, a [hub and spoke model](#) centralizes a product for manufacturers, while driving channel-to-market logistics that efficiently deliver those products to the customer.

In addition to business models, the regulatory landscape affects how products ultimately arrive to the patients who need them. Understanding federal and global regulations is critical to move products through channels in a secure and efficient way. The right distribution partner not only monitors supply and demand, but keeps abreast of regulatory developments and acts quickly to minimize impact to your organization.

Understanding the patient-product mix

The best distribution partner for your organization should have a deep understanding of how the products they deliver serve your patients. Whether a distributor services retail pharmacies, hospitals or acute, long-term care facilities, it's critical that they understand the ways in which each product should be handled to give patients the best outcomes.

For example, some products require cold-chain capabilities or other special handling instructions, while others have ambient storage needs. The right partner will align their distribution model to meet those requirements while working with you to understand your patient-product mix and how best they can facilitate ordering and delivering processes.

Mitigating costs and managing risks

While a streamlined logistics model is important, a good economic model is equally critical. Providers try to alleviate unnecessary costs to prioritize things such as the expenses associated with the risks a distributor takes on to manage a product through the healthcare system.

The right distributor will also do their part — they will invest in their supply chain to ensure it delivers on the needs of providers and manufacturers, maintaining product safety and adhering to regulatory requirements. Cost is also important to the patient, and a good distributor strives to align the costs and services of their work to benefit patients, providers and manufacturers, while eliminating extraneous costs when possible.

Keeping an open line of communication

The relationship between distribution partner and each stakeholder in the healthcare system should be collaborative, communicative and mutually beneficial. By understanding the interconnectedness of the healthcare industry, aligning goals and maintaining an open line of communication, distributors and healthcare organizations can cultivate lasting, dependable partnerships, while working together to develop innovative ideas and solutions.

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With over 100 years of innovation, Pitney Bowes Healthcare Solutions streamline shipping and logistics, helping you keep patients at the heart of your operations.

Our Healthcare Solutions optimize sending, receiving, and distribution processes, giving you a 360° view of your entire operation—all through a single, intuitive interface. Plus, with seamless pharmacy management system integrations, we help you deliver an exceptional patient experience ensuring compliance and simplifying Rx delivery.

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