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Healthcare Innovators Rely on PubNub

Table of Content

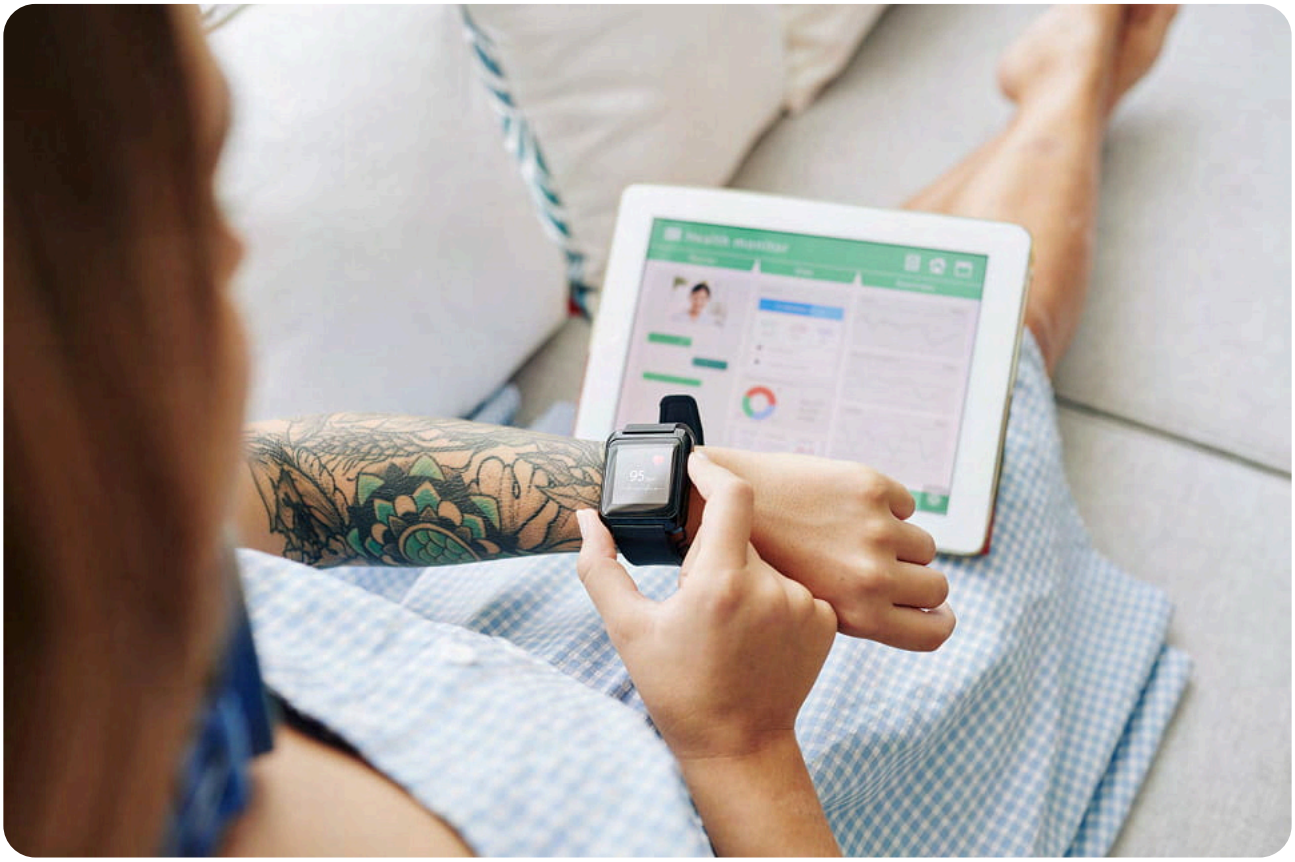
Introduction

Every industry is looking to technology to change how they work and interact, and healthcare is no exception. Especially with the growth of telemedicine as a viable and preferred service, real-time connectivity and automation hold the promise of faster care for better outcomes at less cost for providers. But regulations, privacy concerns, and high costs can slow innovation unless you're working with technology that overcomes these realities.

Today, digital health is moving from experiments to operations. Industry conversations keep coming back to three themes: **patient engagement, remote patient monitoring (RPM)**, and AI with a purpose. The question for many leaders is no longer "Should we do this?" but "How do we do this at scale, with reliability and without burning out our teams?" Infrastructure that lets you build once and scale from pilot to production is the foundation.

Healthcare innovators are working with PubNub so they can focus on providing efficient care and an engaging experience to patients while trusting PubNub to make sure the infrastructure is reliable and scalable for any number of users. The resulting solutions deliver added convenience, improved productivity, enhanced coordination, and better communication through real-time HIPAA-compliant chat, notifications, scheduling, information transfer, and more.

But it's not just startups forging innovation. Large healthcare systems, government organizations, and others are changing the healthcare experience. MaNaDr orchestrates secure and scalable communications between patients and their doctors in real time. ZOLL connects first responders with dispatchers and hospitals. Hearo helps patients live more independently. One Call facilitates safe and reliable patient transportation through their app RelayRIDE. And they're all doing it with PubNub. Here's how.



A Cure for Healthcare's Unique Challenges

KEY HEALTHCARE CHALLANGES

Better Care Coordination

Ensuring safe and efficient patient logistics across providers and facilities.

Delivering high-quality care

Increasing staff productivity, effectiveness, and speed.

Ensure compliance and security

Maintaining HIPAA compliance along with privacy and security.

Improve operational efficiency

Delivering great service at the lowest possible cost.

Enhance patient experience

Keeping patients safe, satisfied, and comfortable.

Scaling engagement and remote monitoring

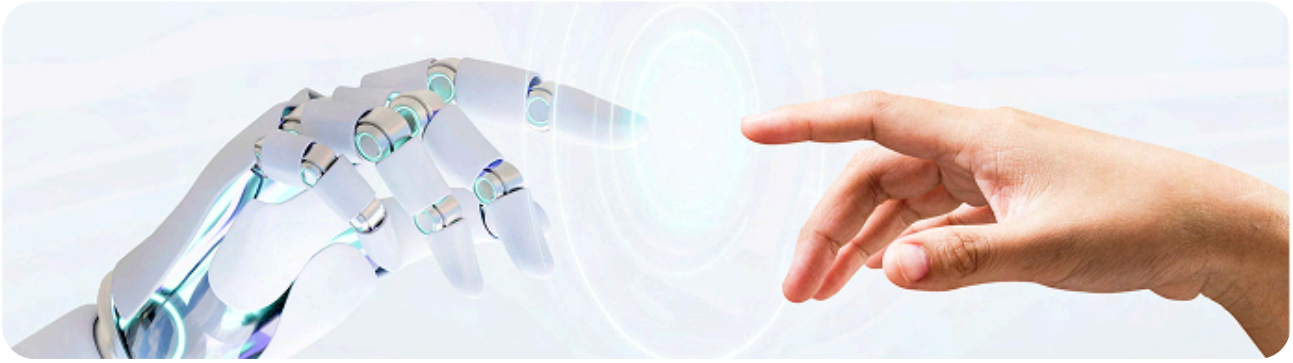
Reducing no-shows and referral leakage, powering the digital front door, and streaming vital signs to clinical teams in time to act.

Insights from the field

What we're hearing

Across health systems and digital health platforms, a consistent pattern is emerging. The tools are better than ever — remote monitoring, ambient AI, telehealth, care coordination platforms. What's holding organizations back isn't the technology itself. It's the infrastructure connecting it all together. Here are the themes we keep hearing, and where they are leading.

Patient engagement and RPM are front and center. New CMS codes (e.g., CPT 99445 for 2–15 days of RPM) are making remote monitoring viable for episodic care and Hospital-at-Home programs in ways that weren't practical before. But the business case only holds if the signal actually becomes an action. A wearable that detects an irregular heartbeat delivers value only if that event reaches the right clinician, in the right context, in time to matter. The bar for engagement has become omnichannel: a single, continuous thread where context follows the patient across every touchpoint, such as device readings, secure messages, alerts, and clinical responses can all be connected in real time. Organizations that treat each of those as a separate integration problem are finding that the overhead erodes the ROI the new codes were meant to unlock.



AI needs a purpose, and a governance layer. The teams that are moving AI from pilot to production share a common trait: they can tell a precise story about what the system did, why it did it, and how it's governed. Purpose and observability beat buzzwords, every time. But what's becoming clear is that governance at scale requires AI to operate within existing infrastructure, not alongside it. When AI agents are treated as a separate system — with their own integration points, their own security reviews, their own audit trails — governance becomes exponentially harder. The organizations succeeding are the ones treating AI agents as participants in an existing, governed data flow, not as a new architecture layer to bolt on.

The integration wall is the real blocker. This is the theme that cuts across every conversation. Health systems are adding new capabilities (think wearables, AI, telehealth, RPM platforms) faster than their integration architecture can absorb them. Each new tool creates new point-to-point connections. Each connection is custom-built, fragile, and dependent on the specific systems it was designed to bridge. When one of those systems gets upgraded or replaced, the connections on top of it break. Engineering teams end up spending more time maintaining plumbing than building care experiences. And every time leadership asks "why is this taking so long?" the honest answer is: integration debt. This is the tax that slows every transformation initiative, and it compounds with every new tool added to the stack.

Real-time, compliant infrastructure at the foundation. What's emerging across these conversations is that the organizations moving fastest share a common infrastructure bet: they're building on a real-time event layer that connects everything. This layer is HIPAA-ready messaging for the digital front door, live event streaming for wearables and RPM, and AI orchestration with full observability and audit trails. Instead of building integrations between systems, they connect each system to a shared event network once.

After that, any participant (such as a device, an app, an AI agent, or a care team member) can send and receive events without additional integration work. That's the model that lets AI pilots reach production, RPM programs achieve their ROI, and care teams actually benefit from the technology being deployed on their behalf.

The through-line is this: the teams that are winning aren't the ones with the most tools. They're the ones with the event-driven healthcare model that lets those tools work together in real-time, at scale, without creating new governance and maintenance burdens with every addition.

Better Care...Better Experiences

Healthcare providers are always looking to increase patient convenience, from reducing wait times to easing communication. But as healthcare costs continue to rise, patient retention has also become a concern. Providers must now do more to enhance how they communicate, coordinate, and engage with patients so they not only have a good experience, they also choose to come back. And while patient care, communication, and coordination present opportunities, every interaction must be in compliance with HIPAA and other industry regulations.

But simply applying technology to a healthcare challenge is no longer adequate since consumers have high expectations driven by the fast, easy-to-use, and highly reliable experiences offered by so many consumer-facing applications. Building an engaging solution and having the platform to support it requires a lot of resources to ensure reliability and scalability, but each resource applied to the platform is taken away from being applied toward building and improving the core solution.

However, it's not a choice; developers must do both if they want their solution to succeed. Today's most innovative organizations, some of which you'll read about below, rely on PubNub's feature-rich, reliable, scalable, and HIPAA-compliant infrastructure. PubNub takes care of the platform so developers can focus on time-to-market, usability, and differentiation while giving patients an engaging and satisfying experience, all with cost-saving productivity and efficiency improvements for providers.

The use cases that connect directly to access, productivity, and outcomes continue to expand. **Patient Engagement** powers the digital front door and virtual care with HIPAA-ready messaging and notifications that reduce no-shows and prevent referral leakage.

Wearables and Remote Patient Monitoring stream vital signs to clinical teams in under 100ms for RPM and Hospital-at-Home, with edge processing for alerts and full audit trails for reimbursement.

Team communications keep clinical staff coordinated with centralized scheduling, rapid protocol updates, urgent alerts, and instant care handoffs.

Fitness and wellness apps use the same real-time layer for coaching, community, and wearable/device sync.

And **agentic AI workflows**—from prior authorization to care gap detection—need built-in observability and HIPAA-aligned audit trails so pilots can move into clinical deployment. PubNub's platform supports these use cases so you can build once and scale.

As healthcare costs continue to rise, streamlining operations, increasing efficiency, and improving productivity is critical to keeping facilities running smoothly and budgets in check. But it can't be more efficient if it diminishes the patient experience. PubNub enables both by providing the platform to streamline operations, logistics, and coordination so patients can easily access the care they need.

Efficient Delivery of Care

Streamline patient communication with HIPAA-compliant chat and push notifications.

Reliable infrastructure ensures every communication makes it through.

Real-time conversations for faster care and screenings, anytime, anywhere.

Customer Stories

MaNaDr

PubNub Chat gave MaNaDr an easy path to reliable and compliant chat so they could quickly put patients in touch with doctors, no matter where they were. PubNub's 99.999% uptime SLA and global 250 ms latency ensures patients and doctors get the message without fail. Even after evaluating SendBird and Pusher, MaNaDr recognized the complete package in PubNub Chat to enable not only chat, but remote consultations, appointment scheduling, telelab results, homecare, news, and more.

Streamlined Logistics

Ensure patients get the care they need with real-time location data.

Boost medical staff productivity with real-time updates and multi-user collaboration.

Developers can quickly and easily roll out crucial features without capability roadblocks.

Customer Stories

Hearo

Hearo relies on PubNub to ensure that millions of sensor events are accurately captured and pushed through their rules engine that triggers an appropriate response, like turning on lights or sending an alert to a nurse. Before PubNub, if these sensors lost internet or server connectivity, all data would be lost. As a result, alerts might not be sent and patients might not get the attention or support they need. But now, Hearo can retain all sensor data even if their systems go offline. When systems come back online, PubNub immediately re-establishes the connection and pushes this stored data. Powered by PubNub, Hearo is fostering independence for their patients and ensuring critical care moments never get missed in the data deluge.

Accelerated Response

Low-latency communications to keep everyone aware of patient status.

Reliable connections as responders pass information to hospitals.

Secure and compliant communication.

Customer Stories

ZOLL

ZOLL needed a mobile app to connect EMS dispatchers, crew, and emergency room staff in real time to ensure patients quickly received the care they needed. But they had to get a feature-rich product to market quickly, so they called on PubNub to provide the speed, reliability, and HIPAA compliance to make it happen. With lives literally on the line, PubNub's low-latency messaging can alert any number of users in less than 100 ms, which increases efficiency and speeds response times for first responders.

Faster Time to Market and Efficient Engagement

Full-featured chat, messaging, and alerts for patient-provider convenience.

Over 90+ SDKs to simplify integrations and create more robust solutions.

Reliability and scalability at a fraction of the cost of building in-house.

Customer Stories

OneCall

OneCall wanted to reduce the number of medical appointments missed and the related penalty fees due to transportation coordination issues between patients, dispatchers, and drivers. So One Call built a mobile app to automate the process using PubNub for geolocation and real-time alerts. When things go off track, dispatchers use PubNub Chat to bring it back together. One Call was able to increase schedule adherence by 10% and reduce average trip cost by 40%. As usage explodes from 1,500 rides per day to an eventual 15,000, One Call is confident PubNub won't let them down.

Regulatory Compliance

Meets growing regulatory compliance requirements around the world, including GDPR, SOC 2, SOC 3, ISO 27001, CCPA, HIPAA, and more.

Your data is safeguarded using TLS and AES256 encryption algorithms.

Fine-grained, token-based access control.

Customer Stories

NurseGrid

NurseGrid is dedicated to improving the work-life balance of nurses by reducing inefficiencies in scheduling. They offer an app that allows nursing departments to access, manage, and share their schedules with colleagues in real time. They engaged PubNubin the pursuit of a vision that makes scheduling management and interactivity from a single source of truth a reality. Customers using NurseGrid, powered by PubNub, see reduced risk by eliminating shadow communications through untraceable apps, creating HIPAA-compliant “paper trails” for staff in the healthcare industry.

A Platform for Real-Time Interactivity

PubNub delivers a platform for building and operating real-time interactive apps for mobile, web, and IoT devices that are lightning fast, reliable, and scalable. Whether you are looking to add chat, notifications, streaming, user or app synchronization, or even edge messaging, we help bring it to life easily, securely, and seamlessly. **Over 2000 companies worldwide choose PubNub** because of our real-time technology expertise along with our ability to help their customers feel more connected to one another, the brand, and product experience.

For healthcare, that means HIPAA-ready messaging for the digital front door and patient engagement, ultra-low latency streaming for wearables and remote patient monitoring, and support for AI orchestration with observability and audit trails so that pilots can move into clinical deployment. The same platform that powers patient communication and logistics can power remote monitoring, team communications, and wellness apps—so you build once and scale from pilot to production seamlessly.

Advantages of Building with PubNub

Flexibility

PubNub offers SDK support for over 90 mobile, web, server, IoT environments, and pre-built integrations with external and third-party APIs.

Scale and Reliability

PubNub has no concurrency or channel limits and powers thousands of apps and millions of people across the globe every day.

Security and Compliance

PubNub offers enterprise-grade security and is compliant with the most stringent regulations around the world, so you always have peace of mind. For AI-powered healthcare workflows, infrastructure that provides observability and HIPAA-aligned audit trails helps you get sign-off faster so pilots reach production.

Support

PubNub is here for you from design through testing, launch, and post-launch. We offer 24/7 support across the globe, operational dashboards, and a dedicated solutions architect team.

Start building today or talk to our team

www.pubnub.com LinkedIn Support