



# The Next Generation of Telemedicine Is Here. Are You Ready?

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Powerful New Software Development  
Capabilities Will Make It Possible



Imagine. Your mother lives in an assisted living facility. She logs in for a virtual doctor's appointment, a telehealth consultation. She's greeted by a chatbot that checks her in and puts her in a virtual waiting room. In the virtual waiting room, she has access to resources about her doctor's facility and available services, which she can review while she's waiting.

When your mother is "let in" to see the doctor, she experiences face-to-face engagement with her doctor, who can pull up her records, pull up information from remote monitoring devices that track her vital signs 24/7, and review the findings with her. If needed, the doctor can add supporting staff at your mother's facility or bring you into the consultation to provide information on her condition and how you can care for her after the appointment. When the consultation has ended, the doctor can send your mother, or you, to someone who can help with billing, insurance, and scheduling a follow-up appointment if needed.

**This is not in the future. This is now.**

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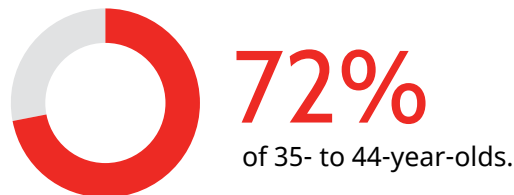
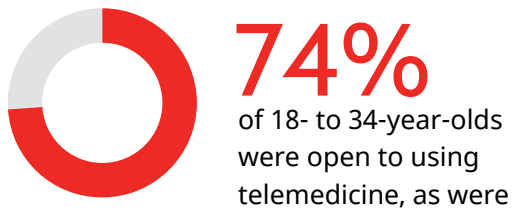
*Accessibility increases the audience for your applications and content so you can reach more customers.*

# Change Was Inevitable in Telemedicine

Even before the pandemic struck in 2020, the adoption of telemedicine was already well in motion, albeit with some obstacles hindering its advance. Some of the macro forces driving this trend include:

## Tech-native generations

Millennials and Gen Zers were already comfortable moving many of their activities to apps. They were already shopping, banking, and communicating with friends and family using smartphone apps. According to American Well's "[Telehealth Index: 2019 Consumer Survey](#),"



Even among older adults, more than half (52%) had a positive view of telemedicine.

## Physician shortages

Despite barriers such as inadequate internet connections and data security risks, the need for specialists in rural areas or at remote healthcare facilities made telemedicine an attractive option. Mental health is one area where the need has been dire. In a study by Michael Barnett, M.D., M.S., and Haiden Huskamp, PhD., they note that in 2018, 115 million Americans lived in areas with mental health professional shortages. Their study, "[Telemedicine for Mental Health in the United States: Making Progress, Still a Long Way to Go](#)," found that behavioral health was one area of telemedicine that was already growing before the COVID-19 pandemic. Neurology is another area where a shortage of specialists has meant that telemedicine can help fill gaps, most commonly when stroke victims need prompt attention for the best outcomes.

## More favorable reimbursement policies

Back in 2018, a Deloitte study, "[What can health systems do to encourage physicians to embrace virtual care?](#)" noted that states in the U.S. were increasingly requiring payers to cover telehealth services at the same level as in-person visits, overcoming another obstacle.







## The Pandemic Drove Telemedicine Adoption Into High Gear

The pandemic accelerated telemedicine's acceptance. When lockdowns spread around the world and in-person care was restricted, telemedicine went from being a nice-to-have to a must-have for healthcare providers. To support the need, Medicare reimbursement restrictions were eased on telemedicine and remote monitoring. Additionally, physicians' interstate practice restrictions were eased.

Insider Intelligence's "[The Remote Patient Monitoring Report](#)," notes some significant changes to telemedicine acceptance post-pandemic. According to the findings, 59% of U.S. consumers say they are more likely to use telemedicine today than before 2020. Perhaps most surprisingly, people older than 65 are becoming more comfortable using technology, and the use of telemedicine among this group exploded during the pandemic, rising 300%.

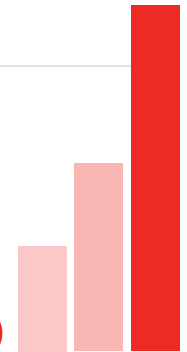
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Many healthcare facilities were caught off-guard at the outset of the pandemic. As a result, they were forced to use inadequate, unsecured conferencing solutions, such as Zoom, for telemedicine consults, making them acutely aware of the need for purpose-built telemedicine solutions.

# Welcome to the Bold New World of Telemedicine

Powerful new software development capabilities have created a new era for telemedicine. Easy-to-use, fast, modern application platforms, like those from OutSystems, allow hospitals, physicians' groups, and care facilities to build an application from scratch, build it fast, and build it in a way that's structured to meet the needs of the specific facility or organization. Once created, the platform's capabilities allow organizations to make application changes easily as new needs arise. The ease, speed, and adaptability of these software applications can help organizations build applications the right way the first time and future-proof them.

These software solutions not only make real-time remote medical visits easier and more productive, but they also help raise telemedicine to the next level by tying the software's power into new technologies like modern remote monitoring devices and video conferencing. And they allow users to accomplish all this with highly secure processes that protect sensitive patient information.

Explains Barry Goffe, Senior Director, Platform Strategy at OutSystems,

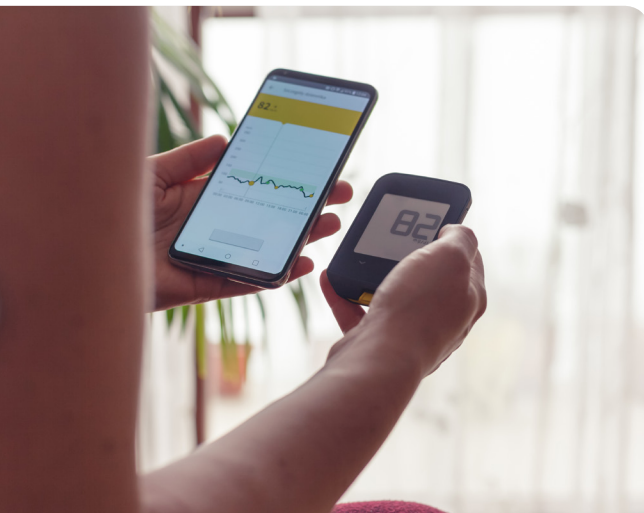
*"A modern application platform enables the development and delivery of complete applications much faster than with traditional development methods. Rather than writing thousands of lines of complex code and syntax, you can use a visual development interface to build complete applications with modern user interfaces, integrations, data, and logic quickly and visually. Applications are delivered much faster and with minimal hand-coding."*

Because these software development platforms are cloud-based, they provide patients, clinicians, caregivers, and family members with efficient, reliable tools that enable contactless remote or in-facility care, automated and continuous monitoring, and easy-to-use virtual communication tools for care teams and family members.

The bottom line? Telemedicine is poised to become more than just digital face-to-face visits between clinicians and patients. It's going to revolutionize the way healthcare is delivered.



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## New Tools Overcome Obstacles

The combination of cloud-based, low-code software development platforms, modern remote monitoring devices, and video conferencing gives physicians and other caregivers truly transformative connected care. Let's look at the role these latest technologies play in delivering this care.

One of the biggest hurdles to overcome is that some patients, especially the elderly, have difficulty or are reluctant to use earlier-generation remote monitoring devices. These devices are often difficult to put on and feel cumbersome and uncomfortable when worn. Many elderly patients won't consistently use a blood pressure cuff or a device they have to strap around their chests.

The newest monitoring devices overcome that obstacle and increase utilization. [Insider Intelligence research](#) estimates that by 2024, 30 million U.S. patients will use remote patient monitoring tools — up from 23.4 million patients in 2020.

With the ability to collect vital patient data more easily, the question then becomes: Once you have this data, what do you do with it? Specifically, how do you connect devices? And how do you manage the devices?

That's where the software comes in. It's the powerful and adaptable software that will make this data usable and truly valuable.

# 30 million

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## CareMeda Helps Deliver Care Without Constraints

Companies like [CareMeda™](#) are ushering in this new era of connected care that combines agile software applications with advanced monitoring technology.

CareMeda offers an agnostic software application built on OutSystems low-code development platform. Especially important for the healthcare industry, the solutions meet HIPAA security and compliance standards.

With its application, CareMeda integrates off-the-shelf, wearable and contactless monitoring devices to read vital signs and collect health data, allowing for real-time and continuous monitoring. Customers can use monitoring devices suggested by CareMeda or those of their own choosing.

These innovative offerings make possible the scenario presented at the beginning of this discussion with contactless, automated monitoring solutions; comprehensive remote care and wellness management; and simple-to-use, one-touch virtual communications and telehealth.

Physicians, patients, and family members can access all the information collected — and make sense of it — using dashboards customized for each of them to make it easy to manage care and connect care teams, patients, and family members.

Building applications in OutSystems, CareMeda can add new functionality quickly. For CareMeda's contactless, connected care offering, the company partnered with [Cloud Development Resources](#), a certified OutSystems partner, to create a solution in weeks that may otherwise have taken months. Says Richard Weatherstone, founder of CareMeda, *"We identified this problem, we designed the solution, and we built it in 120 days. That's the power of low-code application development."*

With the help of Cloud Development Resources' expertise, CareMeda built functionality and customizations to meet the specific needs of its customers — in particular, the ability to:



Use the customer's own devices rather than CareMeda devices



Pull in additional data from Bluetooth-enabled devices — for example, glucose monitor data



Generate customized dashboards and reports



Make facility-specific modifications for multi-facility organizations





## Cloud Development Resources Takes Telemedicine Further

Cloud Development Resources works with companies like CareMeda to build applications and solutions on the OutSystems platform that can connect sensing devices that patients will actually use and allow physicians to monitor patients' vitals 24/7.

Cloud Development Resources helps healthcare providers stay ahead of technology advances and build solutions around the user experience, like a consumer business. It helps them build applications fast with low-code visual development that speeds the creation of any app, from self-service patient and agent portals to mobile apps — reducing development time from months to weeks. And they can connect to any system, third-party service, or API.







## Connected Care Means Better Care

We already have solid evidence that contactless, connected patient consults and remote monitoring has multiple potential benefits:

- ✓ Reduces hospitalizations
- ✓ Shortens hospital stays
- ✓ Reduces hospital readmissions
- ✓ Allows at-home monitoring
- ✓ Increases early diagnosis of disease and intervention
- ✓ Lowers cost of care
- ✓ Expands physician reach
- ✓ Provides access to specialists in rural areas
- ✓ Overcomes transport/travel challenges, especially among the elderly

With the emergence of these new, robust solutions, telemedicine not only promises to provide care equal to in-person care, but to offer advantages over face-to-face care in many situations.

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## Are you ready?

Jenny Kilbourn, VP of operations at CareMeda, sums up the accelerated advances in telemedicine this way: "Healthcare needed to be where it is now for a long time, but COVID catapulted us forward probably a decade."

Modern remote monitoring devices combined with smart software solutions have turned consumer telemedicine from video chat sessions into comprehensive and truly useful healthcare consultations. Clinicians can now monitor patients' vital signs 24/7 and base care on hard data rather than relying on often-inaccurate self-reporting. With the availability of software development solutions that offer low-code app development and make use of powerful AI, the use of these devices becomes quick and easy for both patients and care providers, overcoming reluctance to use them. The next generation of telemedicine is here. Are you ready to embrace it?

To learn more, visit [CloudDevelopmentResources.com](https://CloudDevelopmentResources.com).