



Virtual Clinics In the USA

What is telemedicine, and how can
medical practices benefit from it?



Contents

Introduction	1
The state of telemedicine in the USA	2
Benefits of telemedicine	4
Telehealth challenges and limitations	5
Telemedicine terms you should know	6
Noteworthy US telemedicine companies	7
Adapting to telehealth	9
Conclusion	10



Introduction

The worldwide pandemic dealt a serious blow to the healthcare industry, with medical practices straining to provide care to all those who need it without going bankrupt in the process. The noticeable decrease in elective procedures, higher PPE expenses, temporary worker payments, and other changes seriously hurt the bottom line of many hospitals.

However, thanks to remote consultations and care, some practices managed to not only survive but thrive. In this document, we take a closer look at how remote care works, its impact on the industry as a whole, and the ways providers and practices can use it to adapt to new market conditions.

Who this white paper is for:

Medical practice owners looking to expand the range of services they provide.

Hospital CIOs who want to select the right telemedicine implementation strategy and software.

Other **C-level executives** whose aim is to improve their company's bottom line and attract more patients.



The state of telemedicine in the USA



Telemedicine vs Telehealth

The American Association of Family Physicians (AAFP) defines¹ **telemedicine** as “the practice of medicine using technology to deliver care at a distance,” and **telehealth** as “electronic and telecommunications technologies and services used to provide care and services at-a-distance.”

However, the terms are often used interchangeably.

What telemedicine is used for



Behavioral therapy

- Individual
- Group



Consultations

- Initial
- Pre-op/post-op
- Follow-ups
- Prescription compliance
- Chronic health management



Emergency care

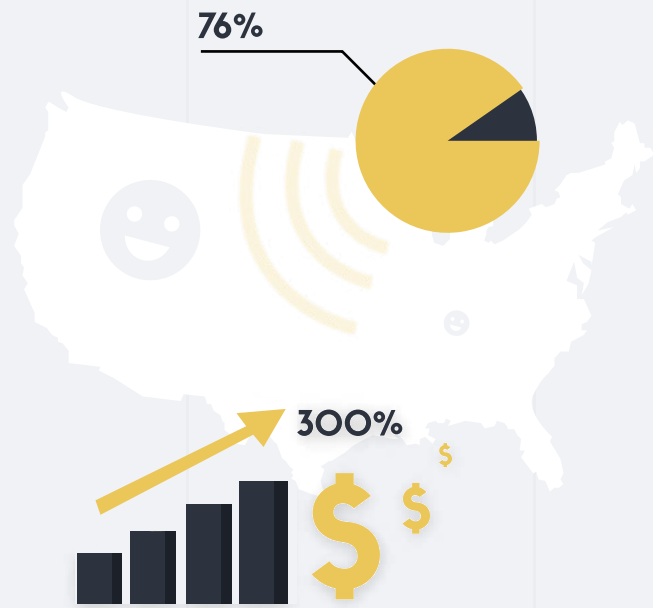
- Remote emergency care (e.g. Telestroke²)
- Triage
- Telesurgery



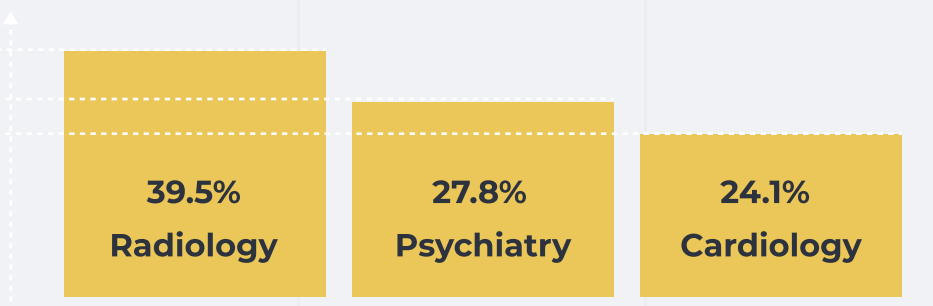
US telemedicine market

As of this paper's writing, **76% of American hospitals³** serve patients remotely in some form. The overall telehealth market size is estimated to be up to \$8.3B USD⁴ with a compound annual growth rate (CAGR) of 16% to 32%.

The venture **capital investment** in telehealth is rapidly increasing: in three years (2017-2020) it has grown by **300%**⁵. The first quarter of 2021 has seen the largest numbers ever, with 4.2 billion dollars invested across 139 deals⁶.



Telemedicine is most popular in:⁷



In the case of **radiology**, the adoption of telehealth was facilitated by the fact that almost all examinations produce digital content. The images can be taken in one hospital, studied in another, and the report forwarded to the patient's physician. The same goes for **cardiologists** remotely reviewing patients' ECGs.

Remote psychiatric care can be on par with face-to-face visits. For example, the University of Rochester hosts **2000 telepsychiatry sessions each year⁸**. The provider uses an iPad on a rolling stand, while a patient needs any webcam- and microphone-enabled device: smartphone, laptop, computer, etc. Moreover, nurses can send doctors videos of agitated patients and get treatment and calming recommendations.

Benefits of telemedicine

For practices:



Efficient care. Case in point⁹:

- **\$1,298** saved per procedure
- **30%** reduction in length of stay
- **38.2%** reduction in preventable 30-day readmissions

Patient satisfaction. According to a study¹⁰:

- **80%** of respondents were either satisfied or very satisfied
- **63%** would use remote consultations again
- **65%** thought telemedicine improved their medical care

Lower staffing costs. According to a survey¹¹:

- **30%+** reduced spending on temporary staff
- Increased nurse-to-patient ratio from **1:25 to 1:100**

Patient and provider safety. According to the CDC¹²:

- Reduced exposure to infections
- Reduced spending on PPE

For patients:



No commute to/from the hospital

No waiting to be admitted¹³

The ability for remote family members to participate and provide additional information

Lower costs¹⁴

Quick **help** in emergency situations or at night



Telehealth challenges and limitations



Telemedicine, despite all its benefits, is far from a panacea. It comes with its own set of drawbacks. Some of them are inherent to its operating model; others are consequences of people simply not being used to remote care.

These are the major challenges currently facing telemedicine:

For practices:



- Transmitted personal data is a potential security risk
- Some remote procedures aren't covered by insurance
- State-based licensing can prevent physicians¹⁵ from serving out-of-state patients
- Upfront investment in technology is required¹⁶
- Staff fear being replaced by AI/chatbots

For patients:



- Taking samples and conducting many hands-on procedures is impossible to do remotely¹⁷
- Patients can be reluctant to adopt new technologies they have not used before.
- Certain states require the physical presence¹⁸ of the patient in the hospital



Serving those left behind

Telemedicine is sometimes hailed as a way to help poor people, those living in rural areas, and other underserved groups. People who live far from major hospitals or whose local practices are understaffed would be able to visit the necessary specialist remotely. Moreover, the lower cost of admission would help those who can't pay for in-person consultation and treatment. However, this is not always the case. In the US, patients with lower incomes are less likely to use telemedicine¹⁹.

On one hand, remote care does offer cost-saving: no commute to/from the hospital, lower admission fees, quick access to professionals with rare specialties. However, the subpar internet connection, reliance on public funds, and a lack of knowledge about such opportunities stifle the expansion of telehealth into low-income areas²⁰.

Telemedicine terms you should know

The telehealth niche has certain lingo that is useful to apply when conveying relevant information quickly and unambiguously.

Modes²¹ — the ways remote care is provided:

- **Synchronous.** Live communication with off-site patients.
- **Asynchronous (Store-and-forward).** Patients and physicians exchanging information (test results, recommendations, prescriptions, etc.)
- **Remote patient monitoring (RPM).** Transmitting and storing patient data and clinical measurements from in-home devices (oximeters, glucometers, etc.) to patient portals.

Software types²² — applications that can be a part of a telehealth program

- **Videoconferencing.** Can even be repurposed business meetings software, as long as it is HIPAA-compliant.
Examples: Zoom, Skype.
- **RPM applications.** Might require integrations with medical devices: oximeters, glucometers, hemodialysis machines, etc.
Examples: eVisit, Teladoc.
- **Practice management software (PMS).** Can include features like online queue and scheduling.
Examples: Allscripts, DGL.
- **EHR/EMR.** Stores patient information for quick access.
Examples: DrChrono, athenaOne, PracticeFusion.

See how Elinext delivered a robust custom PMS

Noteworthy US telemedicine companies

This list contains companies that are all worthy of attention but stand out for different reasons. **Teladoc** is the largest and best-known²³ business, with telemedicine as its core offering. **Navigating Cancer** is an example of a successful B2B company that **focuses on chronic condition management**²⁴. **98point6** is on the cutting edge of technology, using AI to talk to patients before sending them to a human doctor. For **23andMe**, telehealth is a “side gig,” an addition to their main product. And **Amazon Care** shows an innovative approach (selling medical services as an employee benefit) and the trust in technology from an international giant.

Teladoc

Being one of the first telemedicine providers in the US, Teladoc is gaining popularity and tends to be highly rated by users. It has recently acquired Livongo, a startup that focuses on managing diabetes.

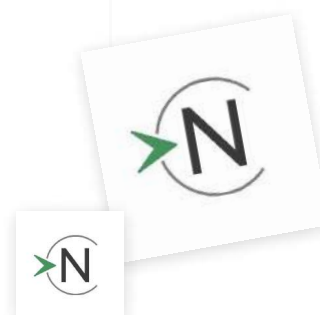
- Provides remote consultations in pediatrics, psychiatry, wellness, etc.
- Issues electronic prescriptions and analyzes lab results
- Services covered by insurance
- Available through mobile apps



Navigating Cancer

As the name suggests, this company specializes in remote oncological care. They are B2B-oriented, promising automation of routine tasks and improved quality of care.

- An option for patients to self-report symptoms and side effects
- Automatic routing of calls to relevant specialists
- Remote patient monitoring
- Triage options



98point6

This company uses AI to triage users before rerouting them to the appropriate medical professional.

- Based on a secure messenger with multimedia capabilities
- Voice and image recognition capabilities
- Electronic prescription functionality
- Services covered by insurance



23andMe

The core offering of the company is still genealogy, but they have branched out in medical services.

- Genetic testing to help find diseases that the customer is prone to
- Covers diabetes, celiac disease, hereditary amyloidosis, and many more
- Plans to mitigate risk and manage chronic conditions
- FDA certified



Amazon Care

In 2019, the megacorporation started offering telehealth services to its employees, and in 2021 made them available²⁵ to other companies as well. Amazon Care is so far limited to Washington State but there are plans to expand its reach.

- Remote assistance plus at-home follow-ups
- Contactless prescription delivery in some areas
- Based on video/text chat
- Offered as a perk for corporate employees



Adapting to telehealth. How to implement a successful telemedicine program

Technical

Run user acceptance testing of the system. Before rolling out the telemedicine program, it is advisable to test it on a group of real-life users to find out whether something was overlooked.

Ready the payment system. Unless you are running a charity, be ready to accept out-of-pocket payments²⁶ from remote patients, as well as insurance reimbursements.

Anticipate scaling. For larger practices, preparing for upscaling the service could save a lot of resources²⁷ in the long run.

Legal²⁸

Ensure liability/malpractice coverage. Ask your insurance provider whether they cover remote services, including ones across state lines.

Get informed consent. Depending on the state²⁹, it could be verbal or written.

Secure HIPAA compliance. Study the regulations³⁰ and make sure your technology vendor follows them.

Organizational³¹

Give staff additional training. Telehealth etiquette includes things like eye contact through the camera, proper clothing choice, elimination of noise, etc.

Prepare for special cases. Telemedicine providers should be prepared for people who are hard-of-hearing, those with limited English proficiency, patients requiring caregivers, etc.

Ensure access to patient info. This requires coordination between your EHR/EMR and telehealth solution.

Informational

Spread the word. One of the reasons people don't use telemedicine is simply due to not being aware³² of such an opportunity.

Prepare the patients. Certain patients (e.g. some senior citizens) might need help learning³³ how your telehealth system works.

Conclusion

Telemedicine lets people get medical assistance **quickly and conveniently**. Moreover, it helps practices serve more patients while reducing costs. Despite a number of inherent and circumstantial limitations, its many **benefits outweigh** its drawbacks. The bottom line is this: telemedicine will continue to expand.

And there is plenty of room for growth. About **157 million** Americans have chronic conditions³⁴, which means they would benefit from RPM services. The use of telemedicine in certain fields, like General Medicine and Dermatology, is still very limited³⁵, despite there being few technological limitations to it. In addition, the **investor activity** suggests that telehealth projects will continue to receive funding³⁶. In total, the situation favors remote medicine and shows that it will keep the momentum going even after the pandemic restrictions are lifted.

"We think that telehealth is here to stay. Our patients are expecting it. Our doctors are very happy with it, and it's a great avenue for care. We're expecting that about 20% of our volume is going to continue to be through telehealth." Deirdre Keeves³⁷, director of connected health applications at UCLA Health.

Do you need help developing a financial service or software?

Elinext can provide advice and programmers.

Write to us

About Elinext



Elinext has been developing websites, web applications and mobile apps since 1997.

Our portfolio includes more than 20 fintech projects such as investment platforms, hedge accounting software, payment processing software, blockchain-based systems and more. We have worked with clients from all around the world: Switzerland, Singapore, Sweden, Norway, Germany, USA and other countries.

elinext.com

Contacts

 info@elinext.com

 + 1 516 393 5818

 elinext.group



Thank you for your time!

Recources

- 1 What's the difference between telemedicine and telehealth?
<https://www.aafp.org/news/media-center/kits/telemedicine-and-telehealth.html>
- 2 Telestroke (stroke telemedicine)
<https://www.mayoclinic.org/tests-procedures/stroke-and-telemedicine/about/pac-20395081>
- 3 Telemedicine in the United States: An Introduction for Students and Residents
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7690251/>
- 4 U.S. Telehealth Market Size 2021 Share, Latest Technology, Growth with Industry Analysis Report by Trends, COVID-19 Impact, Top Companies | Polycom, Siemens Healthineers, Bosch, American Well, BioTelemetry
<https://www.medgadget.com/2021/02/u-s-telehealth-market-size-2021-share-latest-technology-growth-with-industry-analysis-report-by-trends-covid-19-impact-top-companies-polycom-siemens-healthineers-bosch-american-well-biotele.html>
- 5 Telehealth: A quarter-trillion-dollar post-COVID-19 reality?
<https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/telehealth-a-quarter-trillion-dollar-post-covid-19-reality#>
- 6 Doctors And Human Resources Investing In Telehealth
<https://www.forbes.com/sites/forbestechcouncil/2021/07/13/doctors-and-human-resources-investing-in-telehealth/?sh=50538c0a2352>
- 7 Telemedicine in the United States: An Introduction for Students and Residents
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7690251/>
- 8 Telemedicine in the United States: An Introduction for Students and Residents
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7690251/>
- 9 Telemedicine is exploding, but where is the ROI for health systems?
<https://www.hfma.org/topics/financial-sustainability/article/telemedicine-is-exploding--but--where-is-the-roi-for-health-syste.html>
- 10 A telephone survey of patient satisfaction with realtime telemedicine in a rural community in Colombia
<https://journals.sagepub.com/doi/abs/10.1258/jtt.2010.100611>
- 11 Telemedicine is exploding, but where is the ROI for health systems?
<https://www.hfma.org/topics/financial-sustainability/article/telemedicine-is-exploding--but--where-is-the-roi-for-health-syste.html>
- 12 Using Telehealth to Expand Access to Essential Health Services during the COVID-19 Pandemic
<https://www.cdc.gov/coronavirus/2019-ncov/hcp/telehealth.html>
- 13 Benefits of Telemedicine
<https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/benefits-of-telemedicine>
- 14 17 Benefits of Telemedicine for Doctors and Patients
<https://www.healthline.com/health/healthcare-provider/telemedicine-benefits#benefits>

Recources

- 15 Benefits of Telemedicine
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6556699/>
- 16 Telemedicine benefits: For patients and professionals
<https://www.medicalnewstoday.com/articles/telemedicine-benefits#what-is-it>
- 17 Telehealth: The advantages and disadvantages
<https://www.health.harvard.edu/staying-healthy/telehealth-the-advantages-and-disadvantages>
- 18 Advantages and utilization of telemedicine
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6556699/>
- 19 Telehealth used less in disadvantaged areas, Health Affairs study finds
<https://www.healthcareitnews.com/news/telehealth-used-less-disadvantaged-areas-health-affairs-study-finds>
- 20 Using Telemedicine to Treat Patients in Underserved Areas
https://www.innovationpolicyplatform.org/www.innovationpolicyplatform.org/system/files/2_Health%20Telemedicine%20Case_Jun15/index.pdf
- 21 Getting started with telehealth
<https://telehealth.hhs.gov/providers/getting-started/>
- 22 3 Types of Telemedicine and How They Each Improve Patient Experience
<https://www.softwareadvice.com/resources/types-of-telemedicine/>
- 23 Telemedicine Companies
<https://www.investopedia.com/articles/insights/120316/top-5-companies-telemedicine.asp>
- 24 6 Companies That Are Taking Telemedicine By Storm
<https://www.forbes.com/sites/serenitygibbons/2021/04/22/6-companies-that-are-taking-telemedicine-by-storm/?sh=6d1ebf516217>
- 25 Amazon Care to launch across U.S. this summer, offering millions of individuals and families immediate access to high-quality medical care and advice—24 hours a day, 365 days a year
<https://www.aboutamazon.com/news/workplace/amazon-care-to-launch-across-u-s-this-summer-offering-millions-of-individuals-and-families-immediate-access-to-high-quality-medical-care-and-advice-24-hours-a-day-365-days-a-year>
- 26 Implementation Playbook
<https://www.ama-assn.org/system/files/2020-04/ama-telehealth-implementation-playbook.pdf>
- 27 Implementation Playbook
<https://www.ama-assn.org/system/files/2020-04/ama-telehealth-implementation-playbook.pdf>
- 28 Legal Considerations for Implementing a Telehealth Program
<https://www.ruralhealthinfo.org/toolkits/telehealth/4/legal-considerations>

Recourses

- 29 CCHP
<https://www.cchpca.org/all-telehealth-policies/>
- 30 HIPAA for Professionals
<https://www.hhs.gov/hipaa/for-professionals/index.html>
- 31 Telehealth and eHealth in nurse practitioner training: current perspectives
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5498674/>
- 32 Telehealth used less in disadvantaged areas, Health Affairs study finds
<https://www.healthcareitnews.com/news/telehealth-used-less-disadvantaged-areas-health-affairs-study-finds>
- 33 Digital Inclusion in Older Adults: A Comparison Between Face-to-Face and Blended Digital Literacy Workshops
<https://www.frontiersin.org/articles/10.3389/fict.2018.00021/full>
- 34 U.S. Telehealth Market Size 2021 Share, Latest Technology, Growth with Industry Analysis Report by Trends, COVID-19 Impact, Top Companies | Polycom, Siemens Healthineers, Bosch, American Well, BioTelemetry
<https://www.medgadget.com/2021/02/u-s-telehealth-market-size-2021-share-latest-technology-growth-with-industry-analysis-report-by-trends-covid-19-impact-top-companies-polycom-siemens-healthineers-bosch-american-well-biotele.html>
- 35 Telehealth: A quarter-trillion-dollar post-COVID-19 reality?
<https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/telehealth-a-quarter-trillion-dollar-post-covid-19-reality#>
- 36 Telehealth: A quarter-trillion-dollar post-COVID-19 reality?
<https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/telehealth-a-quarter-trillion-dollar-post-covid-19-reality#>
- 37 Health Care After COVID: The Rise of Telemedicine
<https://www.usnews.com/news/health-news/articles/2021-01-05/health-care-after-covid-the-rise-of-telemedicine>