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EDITORIAL/DISCUSSION

Predictions That Will Guide Telehealth Through 2025

Greg Caressi, MBA[1]; Ingrid Vasiliu-Feltes MD, EMBA[2,3,4]; Nitin Manocha[5]; Alejandra Parra[6]; and Sagar Mukhekar[7]

[1]Senior Vice President, Chief Customer Engagement Officer, Americas Regional Leader, Frost & Sullivan, San Antonio, Texas, USA; [2]Founder & CEO, Institute for Science, Entrepreneurship, and Investments, Miami, Florida, USA; [3]Faculty, University of Miami, Florida, USA; [4]CEO, Softhread, Miami, Florida, USA; [5]Senior Industry Analyst, Frost & Sullivan, Toronto, Ontario, Canada; [6]Research Analyst—Healthcare and Life Sciences, Frost & Sullivan, Buenos Aires, Argentina; [7]Industry Analyst—Frost & Sullivan, Mumbai, Maharashtra, India

Corresponding Author: Greg Caressi, Email: greg.caressi@frost.com

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Abstract

Telehealth and virtual health have expanded greatly since the COVID-19 pandemic, driven by demand for access and the acceptance of technology to expand care delivery and monitoring. Healthcare providers are becoming more strategic in leveraging telehealth solutions within their portfolio, and solution providers are using various cutting-edge technologies to expand the options and benefits telehealth can deliver. Given the hunger for data and the goals of preventive and precision care, telehealth will experience continued investment in 2025. The convergence of innovative and emerging technology will help telehealth solutions deliver new capabilities for providers and individuals. The forward-thinking viewpoints of five telehealth thought leaders from the United States and internationally are presented here by THMT.

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Ingrid Vasiliu-Feltes, MD, EMBA

Virtual Health Ecosystems

By 2025, telehealth and telemedicine systems will likely develop into critical components of novel immersive virtual health ecosystems, powered by advanced multipurpose platforms. These multipurpose platforms will leverage telehealth, artificial intelligence (AI), digital twins, multiomics, biometrics, augmented reality (AR), virtual reality (VR), and extended reality (XR). They will have the potential to generate complex clinical intelligence that can reshape personalized treatment pathways.

Optimizing Diagnostic and Therapeutic Processes

AI-driven predictive capabilities during telehealth interactions could optimize diagnostic and therapeutic processes while accelerating the development of precision medicine best practices.

The combination of continuous biometric monitoring and digital twinning fueled by genomics, lifestyle, and environmental data has the potential to further augment personalized telemedicine approaches.

Through AR, VR, and XR, optimization of these immersive virtual healthcare environments could enhance user interaction and increase compliance with telehealth treatment pathways.

We could even envision a brain–computer interface that fully integrates with telehealth capabilities, thereby revolutionizing interoperability standards and offering real-time neurofeedback during telemedicine interactions.

This novel immersive telehealth and telemedicine ecosystem could address the evolving needs of healthcare providers, payers, and patients while optimizing clinical outcomes through a more dynamic and responsive infrastructure.

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AI and IoT Telehealth Solutions

In the technologies of AI and the Internet of Things (IoT) we will witness deeper integration into telehealth, enabling more autonomous care pathways.

We will witness greater adoption of conversational AI, generative AI, and IoT in telehealth solutions. From ambient documentation to the use of technology to share personalized communication messages and

reminders, AI will become deeply integrated into the telehealth portfolio. The trifecta of these technologies will support the expansion of more autonomous care pathways that will improve continuous monitoring and feedback. Moreover, AI will play an enhanced role in accurate and rapid diagnostics. In addition to these developments, the healthcare provider will address the social and financial barriers of the patient to serve the full consumer, not just the patient.

Asynchronous and Community-Based Telehealth

On-demand care and better chronic care management will be made possible by asynchronous and community-based telehealth. To enhance their virtual platform, automate the collection of patient data, and create pre-visit documentation for providers, healthcare organizations will turn to asynchronous virtual care. These notes will be linked with organizational medical and clinical knowledge to support clinical decision-making and care pathway planning. AI-powered systems will analyze patient symptoms, medical history, and test results to provide doctors with valuable insights and support decision-making.

Virtual Care

Virtual care will expand from the provider's office and be provided by community-based specialists such as pharmacists for managing complex chronic diseases. Pharmacists will become the first line of responders to ensure patients are on track with their medications and intervene through online platforms when necessary.

Virtual mental and behavioral health will be the fastest-growing sector, driven by convenience and rising awareness among patients.

Mental and Behavioral Health

In 2025, mental and behavioral telehealth will expand significantly, boosted by a growing demand for accessible services, a reduction in the stigma associated with mental health treatment, and the upgrades in digital technologies. The increasing awareness of the importance of mental health and support from employers and governments will drive demand for digital mental health services, leading to innovation in offerings such as virtual therapy sessions, mental health apps, and remote monitoring tools.

Telehealth Platforms

AI and predictive analysis tools are anticipated to be integrated into telehealth platforms to provide more individualized approaches, enabling practitioners to modify interventions in real-time based on patient needs.

Furthermore, the incorporation of digital therapies based on apps and XR will increase, offering immersive experiences for cognitive behavioral therapy, stress management, and anxiety. Access to these services will become more inclusive, with multiple language options, user-friendly, and designed for diverse cultures, supporting expanded reach to a wider population and enhancing health access and equity.

The market for gamification or app-based digital therapeutics for mental and behavioral health will expand in 2025, with more players coming into the market to tackle the rising incidence of mental health disorders, especially in teens and young adults. These techniques will support providers between sessions to gauge their response to face-to-face therapy and alert the providers about possible deterioration.

Regulatory

The regulatory landscape will be crucial to sector growth. There will be a focus on data privacy and patient data protection. This will promote patient trust and the growing adoption of mental and behavioral telehealth solutions worldwide, establishing telehealth as a fundamental part in the delivery of mental healthcare.

Global Health

Globally, telehealth and virtual health will continue to expand in 2025. While telehealth solutions often leverage mature technology, there will be continued innovation in the range of capabilities integrated into telehealth solutions, enabling an expansion of use cases. As important as innovation in solutions will be, there will be a focus on the strategic use of telehealth in provider care delivery strategies and the need to segment patients to match technology and use case to the right populations.

Greg Caressi

Final Thoughts

Clearly, telehealth is not "one size fits all," and as the range of telehealth options grows, healthcare providers must become more knowledgeable about which solutions meet their needs and those of their patients.

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