



WHITE PAPER: Extending Physician Collaboration
and Patient Care with Secure, High Definition
Web Conferencing



EXECUTIVE SUMMARY

The market for telehealth is growing rapidly as healthcare organizations seek new solutions for enhancing communications. The adaptability of web conferencing is finding new and innovative uses, connecting not only physicians to patients but also enabling enhanced collaboration between clinicians. Web conferencing and telehealth applications are starting to emerge as powerful tools that are able to address a range of challenges facing the U.S. healthcare system. For example, web conferencing is already helping to facilitate remote counseling, improve patient access, lower cost, enhance clinical training, and support population health management initiatives. Web conferencing is gaining traction in healthcare due to the versatility of the technology, its lower price point when compared to video conferencing/in-room systems, and features that make it easier to use for both providers and patients.

A Growing Market

According to a recent market research report by Mordor Intelligence, the global telemedicine market is poised to reach \$28.9 billion in 2019¹. Driving growth in the U.S. market, the report says, is an aging population, increasing prevalence of chronic diseases and significant advances in software and health information technologies. In addition to these factors, an evolving reimbursement system is driving interest in telehealth. Health systems are pressed to reduce the number and length of inpatient stays in order to meet value-based goals. Consequently, many are turning to web conferencing, which enables on-going patient monitoring and follow up, as one solution to help reduce utilization without sacrificing quality. Industry leaders such as Brother are advancing the technology to meet the unique quality, security and compliance needs of healthcare, expanding the range and scope of possibilities for enhancing patient-provider communication.

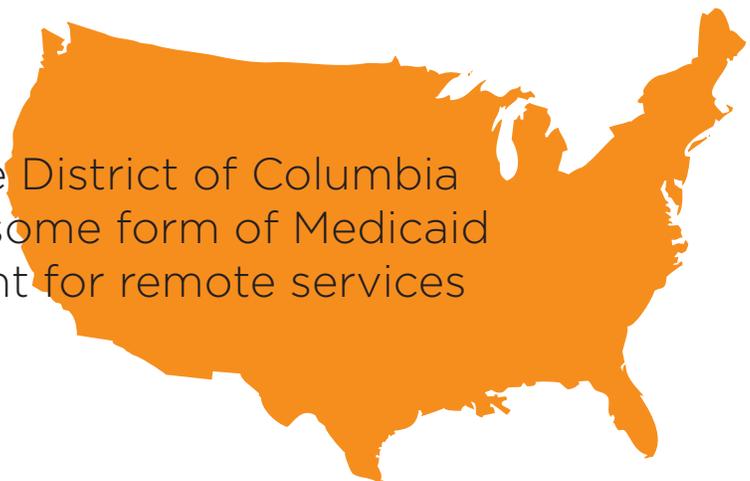
With the advent of healthcare reform, millions of newly insured people are entering the system, further

driving the need for efficient and cost-effective communications solutions to meet the needs of a burgeoning patient population. Physicians are beginning to understand that not every patient encounter requires an on-site office visit. In fact, certain types of clinical encounters—for example, non-emergency consultations and follow-ups, are well-suited for telehealth. In addition to providing significant convenience for patients — who don't need to worry about taking time off work or long wait times — web conferencing is lowering cost and increasing efficiency.

Insurance coverage for telehealth, which has been a sticking point for healthcare organizations for many years, is changing as well. Many states now cover telehealth services in the Medicaid program. In fact, 43 states and the District of Columbia now provide some form of Medicaid reimbursement for remote services. Another path is for states to require private insurance plans to cover telehealth services. According to the National Conference of State Legislatures, 19 states and the District of Columbia now require private insurance plans to cover telehealth services.²

43

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Powerful clinical communications solutions to practical healthcare challenges

Enhancing practice communication through telecounseling and more

The intimacy afforded by high definition video coupled with the patient privacy afforded by end-to-end encryption, makes solutions, such as Brother's OmniJoin™, an ideal platform for multiple types of telehealth, such as remote counseling. The fit is very natural since much of clinical counseling revolves around the ability to facilitate personal interactions—listening, observing body language, patient affect and minute changes to facial expression. From the patient's perspective, engaging with their therapist in the privacy of their own home can help them feel secure and comfortable, allowing them to be more open and honest with the clinician. The convenience factor also makes it easier to keep appointments, which benefits both provider and patient.

Furthermore, the platform enhances the ability for collaboration and effective communication amongst clinicians which is a common practice in certain types of counseling. OmniJoin can record sessions, allowing clinicians to document patient progress or share the session with specialists for second opinions and consults. The ease of use allows clinicians to schedule a web conference at a mutually convenient time, avoiding the usual practice of phone tag. By enabling face-to-face meetings with a single click, providers are also able to share clinical information instantly – bringing it up on the screen – rather than waiting for an email or fax.

In addition to counseling, telehealth applications can meet a variety of patient needs, such as the

on-going management of chronic conditions. Many types of chronic care follow-ups, for example, can be conducted via high definition web conferencing. The technology is allowing clinicians to determine if there are patient-reported changes in condition or visible changes in patient affect, speech or other visual and auditory cues. Depending on the nature of the in-office encounter, telehealth can also offer an efficient and cost-effective alternative to office-based specialist follow-ups, and for some medication refills, depending on state regulations, video conferencing is a legally acceptable alternative to an office visit.

Improving patient access

Providing access to specialists for people in rural and remote areas of the country has long been a challenge. Telehealth is a practical and cost-efficient way to allow clinicians to reach this often under-served population of patients.

The Big Sky Aphasia Program, a clinic based at the University of Montana, delivers speech and language therapy to individuals with aphasia and associated deficits resulting from stroke and traumatic brain injury. The clinic has many clients located in rural regions of the state who lack access to high-quality speech therapy services, who do not have reliable transportation or who have significant medical issues that make travel difficult. To overcome these barriers, the clinic uses OmniJoin to connect patients with their therapists and provide speech therapy sessions in a personalized, remote integration.

These telehealth services also extend outside the state for patients who have relocated but wish to continue with the program.



Another challenge facing the U.S. healthcare system is a physician shortage; this affects patients in rural areas disproportionately. An article in the *Annals of Family Medicine* predicted that the nation will be short 52,000 physicians by 2025, yet the demand for care is increasing with the expanding insurance coverage under the Affordable Care Act (ACA), which will give roughly 30 million Americans health insurance for the first time.³ Telehealth provides the opportunity to increase physician utilization rates, effectively increasing the availability of physicians.

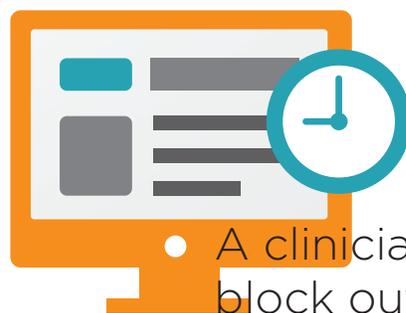
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Lowering healthcare costs

Telehealth helps hospitals and health systems achieve the goal of containing costs. The largest expense for every hospital is the cost of physician, nurse and clinician salaries. Web conferencing allows them to quickly and easily connect, collaborate, share data efficiently and optimize the use of their highly valuable time. Instead of formally scheduling meetings and taking time to find a conference room, web conferencing allows clinicians to meet without leaving their offices.

Telehealth can help lower these costs by ensuring that clinicians are able to maximize the time they spend seeing patients. For example, any unexpected downtime can quickly and easily be converted to an online patient visit or consult. Leveraging the ease of use and convenience

of advanced web conferencing, physicians and clinical specialists can offer web conferencing appointments, reducing the amount of lost time that occurs when patients cancel appointments at the last minute. Additional cost savings can be achieved by using telehealth to coordinate treatment plans, increase patient adherence, and decrease the waiting time between referrals to a specialist appointment. While the reimbursement landscape is changing and data is still being studied, there is a general consensus that telehealth is already lowering healthcare costs and will continue to do so in multiple areas. Specialist follow-ups via online conferencing, for example, offer a patient-friendly way to widen the pool of available specialty care at a lower cost. In a patient engagement application, certain types of follow-up visits can be scheduled for video conferencing. A clinician might block out a whole morning and “see” more patients during that time than if they came for an in-office visit. This approach can help lower costs, reach more patients within a sub-population and increase efficiency.



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Supporting population health initiatives

Providers will reap financial incentives for better managing patient populations to improve outcomes and lower costs as value-based care moves forward. Hospitals must also increase quality of care, and this technology is ideal for use in areas such as staff training for quality initiatives, an important supporting element of population health management. The ACA reforms are driving a major paradigm shift in focusing resources on wellness and preventive care as compared to episodic care. As a result, healthcare organizations have a growing need for easy-to-use, affordable tools that will enable them to improve patient engagement and care coordination. This need has created a renewed interest in web conferencing as it can drive efficiencies for patients and providers through better collaboration capabilities.

Promoting training and internal collaboration

Hospitals and health systems can further leverage online conferencing for internal educational programs. Connecting clinical teams for training, for example, is a cost-effective way to support healthcare quality initiatives. The ability to receive

interactive clinical training without traveling to a classroom creates efficiency and saves time for busy clinicians. Web conferencing also facilitates other forms of clinical collaboration. For example, sharing a patient telehealth session offers a highly convenient and efficient way to enable consults with specialists. The ability to record patient sessions allows physicians to forward the entire encounter to the specialist for rendering second opinions. The specialist can then review the session at their convenience, rather than scheduling an in-office visit, providing a cost-effective way to conduct consults for other clinicians.

Benefitting patients and providers

Advances in video and audio processing provide exceptional, high quality video, delivering almost the same intimacy and level of trust as an in-office visit. Simplicity and ease of use are also key to both patient engagement and clinician adoption. For any remote encounter, patients need “one click” access to start a session and clinicians need simple, even pre-set controls that allow them to focus on their patient or peer interaction, not the technology. Web-based encrypted video and audio protects patient confidentiality and prevents unauthorized disclosures of health information.

A psychiatrist prescribes a new medication for a patient experiencing symptoms of depression. During a web conference follow-up two weeks later, because of the high definition video quality with Brother OmniJoin, the physician notices the patient's affect has improved markedly and she methodically explores each of the patient's presenting symptoms to confirm that the medication is having the intended effect. Based on the intimacy of the telehealth encounter, she determines to continue the medication and schedules a follow-up in 30 days to monitor progress.

Industry leading technology from Brother

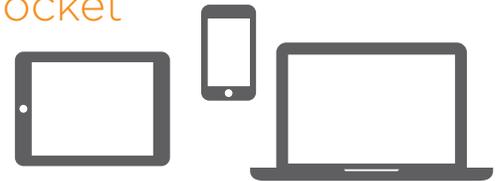
Brother's OmniJoin platform incorporates industry-leading web and video conferencing technology, with easy-to-use, convenient features, and state-of-the-art security over the OmniJoin® Public Cloud or via the OmniJoin® Private Cloud, which is installed behind a provider's firewall. The seamlessly synched audio quality is made possible by a variety of audio technologies, including multi-point, full duplex VoIP, acoustic echo cancellation, wideband audio encoding and multi-party VoIP synchronization. Intelligent HD video incorporates end-to-end parallel processing, HD technology, automated, real-time throttling and dynamic, scalable video coding. With multiple deployment models - public or private cloud - OmniJoin can meet all levels of security requirements through a multi-layer security model and encrypted TCP/IP connections. Additional features, such as multiple layers of passwords, single sign-on and directory integration, help you meet industry compliance and privacy regulations.

The future of web conferencing and telehealth

Consistent with reform and value-based care, reimbursement will undoubtedly change and further extend the adoption of telehealth. Consumer demand will grow as patients seek convenience and value from providers. Providers are clamoring for more streamlined ways of communicating and collaborating. The traditional methods of phone tag, fax and email are increasingly inefficient ways to share clinical data. As healthcare organizations adopt a "team" approach to patient care, they need team collaboration tools to work at peak performance.

Technology and innovation will continue to advance, creating new opportunities for applications of remote clinical services. Consumer use of handhelds and mobile devices continues to skyrocket, driving further demand. While technology adoption is considered the highest amongst younger people, the area where it will have the most impact may well be with older populations. In a recent article in Forbes, Dr. Steve Ommen, Associate Dean at the Center for Connected Care at the Mayo Clinic, said he expects older patients to be enthusiastic adopters. "The fastest-growing demographic for social media is the 60-plus group. They are not technology-averse and they have the greatest mobility challenge in terms of getting to a doctor. A telemedicine solution may be exactly what they need."⁴

Consumer use of handhelds and mobile devices continues to skyrocket



Many factors are driving the increased use of web conferencing, including a growing patient population, increases in chronic conditions and healthcare consumerism. Brother's OmniJoin® helps provider organizations meet these new demands in a cost effective yet extremely easy-to-use solution that can be tailored to the specific IT environment of any provider organization. Brother continues to advance the technology to address the changing healthcare market and offer providers tools and advanced solutions uniquely suited to meet emerging needs.

RESOURCES

1. <http://www.mordorintelligence.com/industry-reports/global-telemedicine-market-industry>
2. <http://www.ncsl.org/research/health/state-coverage-for-telehealth-services.aspx>
3. <http://www.beckershospitalreview.com/hospital-physician-relationships/3-ways-telemedicine-can-help-alleviate-the-physician-shortage.html>
4. <http://www.forbes.com/sites/zinamoukheiber/2015/01/13/why-telemedicines-time-has-finally-come>



About OmniJoin. OmniJoin® web conferencing from Brother delivers high-quality, highly-secure voice, video and collaboration through web meetings, in our public cloud or your own private cloud. www.omnijoin.com. Brother International Corporation is one of the premier providers of products for the home, home office and office.