



2018 North American Telemedicine
Market Leadership Award



2018
BEST PRACTICES
AWARDS

Background and Company Performance

Industry Challenges

Telemedicine involves the use of information and communication technologies to deliver remote care to patients who cannot get to an appropriate healthcare facility. Several challenges globally support the need for telemedicine. These include problems providing healthcare in rural areas, the need for remote treatment of the aging population, and the obstacles that must be overcome to respond to emergencies such as destructive storms or other natural disasters, or military conflicts.

According to the [Rural Health Information Hub](#) in 2017, 46,082,739 people in the United States lived in rural areas—14.1% of the US population.¹ The organization, which is funded by the Federal Office of Rural Health Policy, says government agencies including the US Census Bureau, the Office of Management and Budget, and the Economic Research Service of the Department of Agriculture have developed their own definitions of what qualifies as “rural.”² Regardless of the lack of a precise definition, this segment of the population was served by 4,177 rural health clinics and 1,375 federally qualified health centers that provide services at 10,404 sites.³ Among the problems associated with the rural population’s access to healthcare are the lack of access to medical services, such as stroke detection or intensivists who monitor critical-care patients, and staffing issues that limit the quality of care for certain medical events. Many people are simply unable to travel to these facilities or cannot afford to take time off from work needed to get medical care. There are also concerns about the ability to reach specialists who can adequately diagnose and successfully treat conditions such as strokes, behavioral health issues, or trauma. These problems can be alleviated with telestroke, eICU, telemental health, or other telemedicine services.

Also challenging is the fact that the median age of the US population continues to increase—from age 38 today to age 43 by 2060, according to the US Census Bureau.⁴ By 2020, there will be nearly 3.5 working-age adults for every retirement-age person; by 2060, there will be just 2.5 working-age adults for every retirement-age person.⁵ These demographic trends will have strong impact on a healthcare system that is already seeking ways to overcome projected shortages of doctors.

The pervasiveness of natural disasters also is heralding the need for telemedicine. According to GRID-Arendal, an official United Nations Environment Program center based in Norway, “...the world’s exposure to natural hazards is inevitably increasing.”⁶ The

¹ <https://www.ruralhealthinfo.org/states/united-states>

² <https://www.ruralhealthinfo.org/topics/what-is-rural>

³ <https://www.ruralhealthinfo.org/states/united-states>

⁴ <https://www.census.gov/newsroom/press-releases/2018/cb18-41-population-projections.html>

⁵ Ibid

⁶ <http://www.disaster-survival-resources.com/us-disaster-statistics.html>

organization reports that the strongest population growth is in coastal areas that have the greatest exposure to floods, tropical cyclones, and tsunamis. An additional complication is that a sizeable portion of the land areas that remain open for urban growth is considered to be risk-prone for floods or landslides.⁷

These challenges will continue to affect the cost and efficiency of healthcare until telemedicine becomes engrained in daily healthcare practices worldwide. The industry will depend on telehealth technology such as telemedicine-capable medical devices, direct-to-consumer video platforms, and customized solutions that are designed to function in remote locations or extreme conditions.

Market Leadership of AMD Global Telemedicine

AMD Global Telemedicine (AMD) has become a market leader by focusing on the development of innovative technologies that improve access to healthcare and can perform in emergencies no matter the distance from a provider.

Growth Strategy Excellence

AMD has been engineering telemedicine solutions for more than 2 decades. The company commenced operations well before the current wave of interest that has made telemedicine a realistic concept for millions of users. AMD has used strategic planning to develop software, devices, and systems to overcome the geographic obstacle to the delivery of the highest caliber of healthcare to remote locations. The company started by offering specialty medical devices geared to unique telemedicine applications. Frost & Sullivan believes that AMD has demonstrated excellent long-term strategic planning that has enabled it to evolve into a clinical telemedicine solution provider with products that can play a role in all patient encounter scenarios. AMD has grown to offer the latest generation of telemedicine technologies such as encounter management software, specialized medical devices and equipment and integrated carts/ systems, that can be configured to a provider's specific needs.

For example, AMD created the capability to support clinical telemedicine solutions to more than 10,000 patient endpoints around the world. Its telemedicine portfolio includes eight product segments that feature dozens of products, including OnDemand Visit[®], a direct-to-consumer telehealth platform that enables high-quality and cost-effective healthcare for patients regardless of their location. The enterprise-wide virtual care solution engages patients who cannot visit an office.

Another example is AGNES Interactive[®], Web-based telemedicine software that allows remote clinical healthcare providers to capture and share medical device data, exchange documents and medical images in real time, and participate in live video conferences.

⁷ Ibid.

Implementation Excellence

AMD offers telemedicine services for disaster relief, rural healthcare, and industrial health. Specific points of service include developing countries, correctional facilities, mobile health clinics, schools, oil rigs, ships at sea, and trains.

AMD continues to implement new solutions in these areas. For example, in July 2018 the company announced a partnership with NuPhysicia Health of Texas, a registered, certified nonprofit healthcare organization, to deliver scalable on-site healthcare options for self-insured employers. Technology from AMD and clinical care services from NuPhysicia will result in a state-of-the-art telemedicine program combined with a staffed clinic for a scalable and cost-effective delivery model. The new venture, called The Working Clinic™, provides an on-site medical presence supported by access to a virtual team that is available to an employee. The program fulfills healthcare needs such as urgent care services, preventative health and wellness, and occupational medicine. The Working Clinic™ offers medium to large employers a robust on-site healthcare option without the cost of building a facility or medical staffing..

Brand Strength

AMD's corporate and product brands are recognized globally: the company serves 98 countries. The AMD brand is also visible through active partnerships with the American Telemedicine Association, International Society for Telemedicine and eHealth, American Association of Telehealth and Telemedicine, and National Rural Health Association.

AMD has accumulated numerous impressive customer success stories. They include:

- Adventist Health, a not-for-profit organization serving Western US states, where AMD has enabled telehealth to deliver health services to patients in rural and underserved areas;
- Cherokee Health Systems, a nonprofit that offers care to patients in Tennessee, which has stated: "Having access to providers through the use of telemedicine technology not only keeps students in school, but in some instances represents access to high-quality care that is otherwise difficult to come by in rural Tennessee;" and
- The University of Miami Miller School of Medicine In Miami-Dade County Florida, which has stated: "The University of Miami Pediatric Mobile Clinic relies on AMD's telemedicine technology to help them greatly improve access to treatment in areas that need it most."

Product Quality

All AMD products come with a standard warranty, effective for one year from date of invoice, covering parts and labor. The company meets ISO 13485 quality management

system certifications, operates as a US Food and Drug Administration-registered facility, and follows standard good manufacturing practice guidelines.

AMD describes its medical devices as “AMD Certified.” Each device is subjected to a rigorous testing program to ensure proper operation, compatibility of all hardware and software when operating on a single PC, and adherence to industry standards affecting data transmission, electronic data interchange and interoperability with, commonly used software operating systems, such as Microsoft Windows and related applications. AMD also promises that almost all of its devices are self-calibrating and require minimal service over years of use.

AMD’s telemedicine systems comply with national and international privacy, security, and confidentiality standards including the US Health Insurance Portability and Accountability Act (HIPAA) and European Commission Directive 95/46 regarding data protection, as well as US Veterans Administration and TriCare standards as applicable.

Frost & Sullivan has concluded that AMD is known throughout the healthcare industry for quality products that are based on advanced technologies. An example of a quality-driven innovation is the unified telemedicine and electronic medical record (EMR) solution developed in collaboration with Adventist Health and Cerner. AMD’s AGNES Interactive® development team integrated the telemedicine platform with Cerner’s EMR. As a result, all data from a telehealth consultation—including images—can be included in the EMR.

Technology Leverage and Product Differentiation

AMD has demonstrated the ability to either leverage homegrown technology in its large list of global deployments or partner with other tech-savvy companies. Homegrown solutions include:

- Encounter management software that enables real-time patient exams that record, manage, and capture data. Examples include OnDemand Visit®, AGNES Interactive®, and ExamFlow®;
- Telemedicine carts and systems that can be configured with provider-specific devices and software. Examples include portable teleclinics and patient assessment terminals; and
- Specialized medical devices that capture vital patient data, including quality video and superior medical images. Examples include general examination cameras, intraoral dental cameras, and a multipurpose camera and scope.

In January 2018, AMD joined with Jenysis Global, a provider of mobile healthcare and disaster response solutions, to develop self-contained telehealth clinics.

Frost & Sullivan recognizes that the AMD Global Telemedicine name instantly differentiates

it from medical device companies that provide telemedicine products in addition to a full catalog of on-site medical devices. AMD has emphasized its mission to provide telemedicine solutions that are designed to support specific use cases including rural locations, schools, post-acute care facilities, large healthcare systems and disaster relief. It also supports specific applications including virtual exams, mobile telehealth clinics, medical specialties, and telemedicine for behavioral health.

Conclusion

The concept of telemedicine has been of interest for many years, but advances in communication technology coupled with the need for medical care in rural locations and disaster and military conflict zones, and by an aging population coping with numerous chronic conditions, has made telemedicine a must-have. Frost & Sullivan believes that AMD Global Telemedicine has performed in an exemplary manner to become a market-leading provider of innovative healthcare technology that will take telemedicine to the next level. AMD has been an industry front-runner in developing an impressive portfolio of telemedicine-enabling software, devices, and virtual examination tools that have been deployed around the world. AMD has also demonstrated a willingness to partner with other healthcare technology specialists to develop exciting new capabilities that will make telemedicine more widespread than ever before.

Frost & Sullivan is proud to bestow the 2018 Market Leadership Award to AMD Global Telemedicine.

Significance of Market Leadership

Ultimately, growth in any organization depends upon customers purchasing from a company, and then making the decision to return time and again. Loyal customers become brand advocates; brand advocates recruit new customers; the company grows; and then it attains market leadership. To achieve and maintain market leadership, an organization must strive to be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.



Understanding Market Leadership

Driving demand, strengthening the brand, and differentiating from the competition all play a critical role in a company's path to market leadership. This three-fold focus, however, is only the beginning of the journey and must be complemented by an equally rigorous focus on the customer experience. Best-practice organizations, therefore, commit to the customer at each stage of the buying cycle and continue to nurture the relationship once the customer has made a purchase. In this way, they build a loyal, ever-growing customer base and methodically add to their market share over time.

Key Performance Criteria

For the Market Leadership Award, Frost & Sullivan Analysts focused on specific criteria to determine the areas of performance excellence that led to the company's leadership position. The criteria considered include (although not limited to) the following:

Criterion	Requirement
Growth Strategy Excellence	Demonstrated ability to consistently identify, prioritize, and pursue emerging growth opportunities
Implementation Excellence	Processes support the efficient and consistent implementation of tactics designed to support the strategy
Brand Strength	The possession of a brand that is respected, recognized, and remembered
Product Quality	The product or service receives high marks for performance, functionality, and reliability at every stage of the life cycle
Product Differentiation	The product or service has carved out a market niche, whether based on price, quality, or uniqueness of offering (or some combination of the three) that another company cannot easily duplicate
Technology Leverage	Demonstrated commitment to incorporating leading-edge technologies into product offerings, for greater product performance and value
Price/Performance Value	Products or services offer the best value for the price, compared to similar offerings in the market
Customer Purchase Experience	Customers feel they are buying the most optimal solution that addresses both their unique needs and their unique constraints
Customer Ownership Experience	Customers are proud to own the company's product or service, and have a positive experience throughout the life of the product or service
Customer Service Experience	Customer service is accessible, fast, stress-free, and of high quality

Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan Awards follow a 10-step process to evaluate Award candidates and assess their fit with best practice criteria. The reputation and integrity of the Awards are based on close adherence to this process.

STEP	OBJECTIVE	KEY ACTIVITIES	OUTPUT
1 Monitor, target, and screen	Identify Award recipient candidates from around the globe	<ul style="list-style-type: none"> • Conduct in-depth industry research • Identify emerging sectors • Scan multiple geographies 	Pipeline of candidates who potentially meet all best-practice criteria
2 Perform 360-degree research	Perform comprehensive, 360-degree research on all candidates in the pipeline	<ul style="list-style-type: none"> • Interview thought leaders and industry practitioners • Assess candidates' fit with best-practice criteria • Rank all candidates 	Matrix positioning of all candidates' performance relative to one another
3 Invite thought leadership in best practices	Perform in-depth examination of all candidates	<ul style="list-style-type: none"> • Confirm best-practice criteria • Examine eligibility of all candidates • Identify any information gaps 	Detailed profiles of all ranked candidates
4 Initiate research director review	Conduct an unbiased evaluation of all candidate profiles	<ul style="list-style-type: none"> • Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles 	Final prioritization of all eligible candidates and companion best-practice positioning paper
5 Assemble panel of industry experts	Present findings to an expert panel of industry thought leaders	<ul style="list-style-type: none"> • Share findings • Strengthen cases for candidate eligibility • Prioritize candidates 	Refined list of prioritized Award candidates
6 Conduct global industry review	Build consensus on Award candidates' eligibility	<ul style="list-style-type: none"> • Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates 	Final list of eligible Award candidates, representing success stories worldwide
7 Perform quality check	Develop official Award consideration materials	<ul style="list-style-type: none"> • Perform final performance benchmarking activities • Write nominations • Perform quality review 	High-quality, accurate, and creative presentation of nominees' successes
8 Reconnect with panel of industry experts	Finalize the selection of the best-practice Award recipient	<ul style="list-style-type: none"> • Review analysis with panel • Build consensus • Select recipient 	Decision on which company performs best against all best-practice criteria
9 Communicate recognition	Inform Award recipient of Award recognition	<ul style="list-style-type: none"> • Present Award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance 	Announcement of Award and plan for how recipient can use the Award to enhance the brand
10 Take strategic action	Upon licensing, company is able to share Award news with stakeholders and customers	<ul style="list-style-type: none"> • Coordinate media outreach • Design a marketing plan • Assess Award's role in future strategic planning 	Widespread awareness of recipient's Award status among investors, media personnel, and employees

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of our research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry participants and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS



About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best-in-class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages more than 50 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.