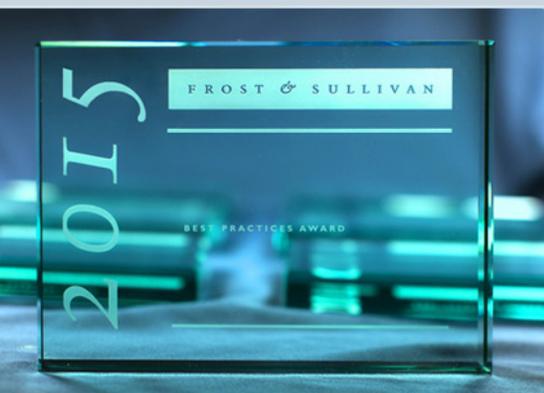# FROST & SULLIVAN

2015

PHILIPS

2015 North American Managed Equipment Services for Hospitals Customer Value Leadership Award

FROST & SULLIVAN

50 Years of Growth, Innovation & Leadership

Contents

Background and Company Performance

Industry Challenges

For the past five years, United States (US) healthcare providers (physicians and hospitals) have almost singularly focused financial resources on accelerating the transition to electronic health records (EHRs) in order to qualify for Meaningful Use and capture much-needed incentive funds provided by the Centers for Medicare & Medicaid Services EHR Incentive Program. As this program comes to an end in 2016, Frost & Sullivan predicts that many hospitals will enter a "post EHR era," where financial resources will be freed up to devote to increasing hospital efficiency and upgrading out-of-date medical devices. Additionally, as the migration to value-based healthcare simultaneously accelerates, hospitals face increased pressure to reengineer existing business procedures to provide consistent, high-quality care that reduces hospital stay times and increases quality and patient satisfaction.

The fragmented nature of both the US healthcare industry and internal hospital structure creates a barrier to efficient and standardized care. Within many hospitals, patient history, imaging scans, and other tests are all placed onto different software applications, making it extremely challenging for doctors to gain a full patient view for a correct diagnosis. In addition to this fragmented data structure, since financial resources have been devoted to upgrading EHR software, many hospitals' medical equipment is extremely outdated, prohibiting doctors from gaining the most relevant test results for diagnosis and treatment. Finally, since financial resources and budgets have experienced such significant containment pressure, most hospitals cannot support increased spending on additional administrative personnel to pursue more efficient methods of procurement, maintenance, and care standardization.

As US healthcare providers look for ways to better manage the risk and complexity of their market, healthcare equipment and service providers are beginning to offer managed health services. In these services, health device and service providers take over the managing, purchasing, and implementation of healthcare software and equipment, as well as maintenance, operational, and administration services. This allows hospitals to focus on their primary goal: providing high-quality and efficacious treatment.

Customer Impact and Business Impact of Philips

Philips has partnered with Georgia Regents Health System (GRHealth) in a one-of-a-kind, $300 million, 15-year alliance with the goal of enhancing GRHealth's operational efficiency by enacting standardized health processes that provide high-quality care to GRHealth patients. The first of its kind in the US, the alliance aims to realize better, faster, less expensive healthcare while increasing patient value and satisfaction.

Aligned Visionary Goals to Create a Focused Partnership

The current fragmented nature of healthcare is both an internal and external problem that leads to inefficient processes, inconsistent care implementation, avoidable service utilization, and unnecessary costs to both the hospital and patient. The Philips-GRHealth partnership was born from the health system's need to optimize technology resources and innovate care delivery in order to survive and thrive in an era of value-based care.

GRHealth leaders understood the high initial capital required to meet such a goal, and wanted a partner with the aligned objective of creating standardized care processes to enable consistent, high-quality care and impose strategic, enterprise-wide planning structures to innovate care across the organization. Additionally, GRHealth sought a partner to go "at-risk" with them on the project, ensuring that the solutions provided would enact a meaningful, sustainable change. According to Georgia Regents University's Vice President of Partnerships, International Healthcare & Strategic Affiliations Shawn Vincent, "We spoke with all of the major players in the industry…Philips was the only one that was really forward-thinking along the same terms." Philips' over 8 years of experience in managed health services in Europe and its expertise in North American multivendor management allows the company to combine these approaches to provide the most efficient management model for GRHealth's service management. The company's well-rounded expertise made it willing to go at risk, highlighting Philips' belief in its solutions and commitment to delivering a positive impact across the health system.

High Focus on Customer Service to Accelerate Success

Philips is responsible for procuring, managing, and maintaining all imaging and monitoring equipment, software, and systems in order to preserve the enterprise's operational and quality efficiency and to standardize care processes within the specific budgetary constraints. Since Philips' managed health services experts work in close proximity with GRHealth doctors and staff, it is able to see the day-to-day needs of staff and connect individuals and teams in ways not possible in transactional relationships. Philips maintains six (6) personnel onsite to work full time within the GRHealth enterprise and gain a comprehensive understanding of its needs. Additionally, between five (5) and fifteen (15) ancillary service, consultants, trainers, and clinical technology personnel travel onsite daily to help ensure that newly implemented solutions are running with maximum efficiency.

From Program Objectives to Project Implementation

The managed services partnership model is based on a governance model wherein Philips and GRHealth staff and executives work collaboratively at all levels of the organization to enact changes that will increase efficiency. Upon execution of the $300 million contract in June 2013, Philips' implementation model shifted from a sales model, in which different departments act independently to gain capital for system and device updates, to an enterprise-based one in which needs are identified and prioritized by the alliance team based on the added value that the solution provides GRHealth in the overall scheme of things. To identify and understand their most pressing needs, Philips representatives attend GRHealth's capital, quality, and master planning meetings. Collaboratively, the alliance determines where the market is going and which changes would result in the greatest benefit—both clinically and economically—to the system. This enterprise approach allows the alliance to reduce total costs and reinvest capital into other high-priority areas.

After identifying the need, Philips experts work side-by-side with clinicians to implement best practice solutions and to train staff to standardize care and gain a high value return for their technology investment. This method is unique from other models of managed services within North America, where competitors are tacking service and maintenance management contracts onto bulk purchasing orders, directly following the supply-chain management model. While efficient in managing the service of a single device or system, these contracts are extremely limited in their value as they do not take the whole patient care experience into account. According to Vincent, "If you think about all the access that Philips has worldwide and think about all the wonderful things they can bring to the table from best practices… to understanding what equipment is needed and when… they really have been instrumental in making sure that we have the right equipment at the right time to make sure that we are still best-in-class—but not spending money where we do not need to spend money."

Philips Experience in Performance-based Partnerships

The financial model for the alliance is based on a comprehensive but highly flexible plan for the system's equipment, maintenance, and transformation service needs. GRHealth pays Philips through a monthly unitary payment, which dramatically simplifies and stabilizes the organization's capital, operational, and cash flow structures.

Additionally, Philips' previous experience delivering managed services solutions in other markets has given it the confidence to go "at risk" in various aspects of its enterprise partnership model. By going at risk, if Philips solutions do not deliver a meaningful, previously-agreed-upon impact, a designated portion of the annual alliance payment will be returned. This ensures that the solutions Philips provides raise the system's operational efficiency and create value for the enterprise.

Current Status: 2 Years into the 15-Year Agreement

Philips and GRHealth's alliance is relatively young, but together, the partnership has achieved valuable results and has begun to standardize and transform care across the enterprise. The alliance has implemented the following upgrades, replacements and additions in its short 24 months of existence:

- Replaced and upgraded 800 patient monitors used throughout the system, along with the clinical network used for real-time monitoring data.

- Implemented Guardian software that provides early notifications of warning signs for patient deterioration on the general floor.

- Replaced and enhanced existing telemetry capabilities for improved patient monitoring and staff efficiency.

- Implemented extensive, whole-house replacement of computed tomography (CT) systems, including two (2) 256-slice CT devices and one(1) 128-slice CT device focused on interventional CT procedures.

- Instituted digital radiography across 95% of the adult and 100% of the pediatric radiology departments. The advancement focused on managing dose and improving patient throughput, all while reducing the overall number of diagnostic imaging rooms.

- Replaced the majority of ultrasound systems in diagnostic and vascular areas.

- Replaced one and upgraded another catheterization lab ("cath labs") with a focus on multidisciplinary lab usage. Additionally, it redesigned two multidisciplinary interventional radiology suites, one focused on neurological use and one for interventional use.

Additionally, the alliance chose to integrate Philips' newest picture archiving and communication (PACS) system—the Philips IntelliSpace PACS Version 4.4—into GRHealth's radiology and cardiology departments. This system allows integrated storing, access, and review of scans from older systems as well as from new imaging devices. Furthermore, this portal includes analysis capabilities, allowing doctors to access and analyze scans on a single application. This new, fully-integrated system increases the accuracy and efficiency of the diagnosis, and leads to decreased technology spending and a more standardized method of care. The partnership is planning on expanding this system into other departments after its success within the radiology departments.

These upgrades have promoted an advanced workflow and have led to standardized care processes enterprise wide. Now, with most of the initial technology upgrade projects behind it, the alliance is shifting its focus to process standardization and transformational processes as well as strategic initiatives. For example, the alliance has recently addressed clinical growth planning, quality re-programming, and enterprise throughput challenges, which remain central priorities for the health system. Clinical growth efforts by Philips provided bottom-up analysis and engagement of all 15 clinical service lines, fostering needed dialogue about strengths, weaknesses, common challenges, and opportunities to grow.

In addition, Philips led a variety of process improvement projects, including value stream mapping of radiology and telemetry, utilization analyses for various equipment fleets, competency measurement, and forming a Program Management Office. These activities helped identify waste, determine more robust equipment management approaches, and strengthen communications.

Results of the Project

These changes have saved GRHealth over $7 million and reduced its technology spending by 35% to date. Specifically within the technology service and imaging area, GRHealth has experienced rapid volume increase, as it was able to meet the throughput demand previously unmet. Decreased downtime and a more streamlined workflow implementation led to the following high-tech imaging volume increases[1]:

- CT: 11%

- MRI: 33%

- Ultrasound: 29%

- Vascular interventional radiology: 39%

Concluded by Vincent, "At the end of the day we are looking at innovation and innovative changes. That is really the next phase. It may not necessarily be imbedding a new piece of equipment, but how do we really impact healthcare and how can we work together to create some of these transformation changes."

The success of this partnership has led Philips to sign a similar, $500 million deal with Westchester Medical Center Health Network in June, 2015.

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[1] While several pieces of existing equipment were upgraded or replaced, there was no net increase in the number of imaging devices. During this time, radiologists decreased by 2.5 FTE. Reported by Dr. James Rawson, Chief of Radiology at Georgia Regents Medical Center, April 2015.

Conclusion

As the United States (US) healthcare industry is changing toward a value-based system, care providers need to focus on providing higher quality of care. Due to the traditionally fragmented nature of hospital organizations, many hospitals need to redesign care processes to optimize efficiency and create standardized care delivery methods. The Philips-Georgia Regents Health System (GRHealth) alliance focuses on decreasing internal departmental fragmentation in order to standardize care processes to provide consistent, high-quality care. Philips has helped GRHealth create an overall savings of $7 million and reduce technology spending by 35% in the first two years. The alliance is the first of its kind in the US, and has created the model for future managed health services partnerships.

With its strong overall performance and holistic approach to providing health solutions, Philips has earned Frost & Sullivan's 2015 North American Customer Value Leadership Award in the managed equipment services for hospitals market.

Significance of Customer Value Leadership

Ultimately, growth in any organization depends upon customers purchasing from your company, and then making the decision to return time and again. Delighting customers is therefore the cornerstone of any successful growth strategy. To achieve these dual goals (growth and customer delight), an organization must be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.

- Shift Competitors Customers
- Increase Renewal
- Increase Upsell
- Customer Value
- Increase Market Penetration

- Increase Equity
- Improve Recognition/ Recall
- Inspire Customers
- Value Leadership
- Clarify Value Proposition

DEMAND

BRAND

Customer Value Leadership

COMPETITIVE POSITIONING

- Clarify Superior Positioning
- Superior Value to Customers
- Competitors Fall Behind
- Best Implementation
- Value Mapping

Understanding Customer Value Leadership

Customer Value Leadership is defined and measured by two macro-level categories: customer impact and business impact. These two sides work together to make customers feel valued, and confident in their products' quality and long shelf life. This dual satisfaction translates into repeat purchases and a high lifetime customer value.

Key Benchmarking Criteria

For the Customer Value Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Customer Impact and Business Impact—according to the criteria identified below.

Customer Impact

Criterion 1: Price/Performance Value
Criterion 2: Customer Purchase Experience
Criterion 3: Customer Ownership Experience
Criterion 4: Customer Service Experience
Criterion 5: Brand Equity

Business Impact

Criterion 1: Financial Performance
Criterion 2: Customer Acquisition
Criterion 3: Operational Efficiency
Criterion 4: Growth Potential
Criterion 5: Human Capital

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 players and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS
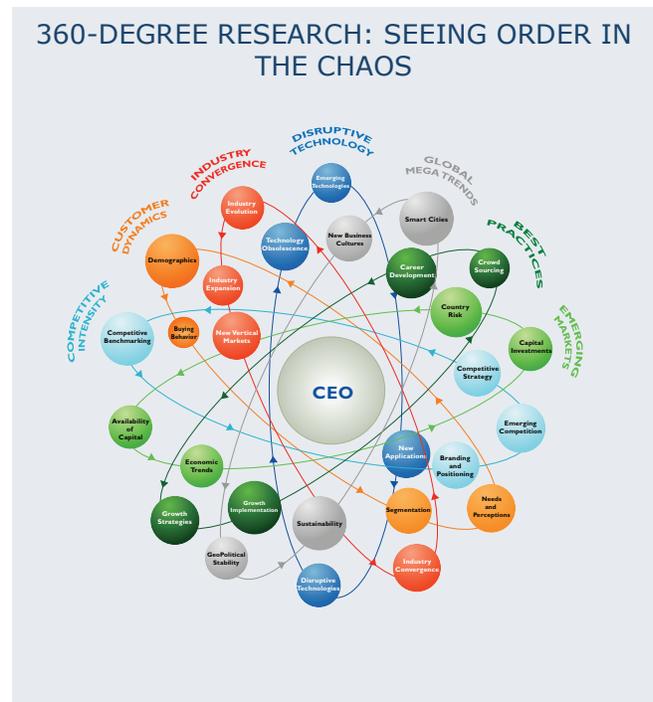
Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan Awards follow a 10-step process to evaluate award candidates and assess their fit with select 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	• 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	• Interview thought leaders and industry practitioners • Assess candidates' fit with best-practice criteria • Rank all candidates	Matrix positioning all candidates' performance relative to one another
3 **Invite thought leadership in best practices**	Perform in-depth examination of all candidates	• 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	• 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	• 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	• 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	• 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	• Review analysis with panel • Build consensus • Select winner	Decision on which company performs best against all best-practice criteria
9 **Communicate recognition**	Inform award recipient of award recognition	• 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 may share award news with stakeholders and customers	• 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

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 almost 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 31 offices on six continents. To join our Growth Partnership, please visit http://www.frost.com.