2017 North American Healthcare Workforce Management Product Leadership Award
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Background and Company Performance

Industry Challenges

Healthcare organizations of every type must transform standard clinical and operational procedures to meet the myriad challenges impacting all aspects of their business. Standing still is not an option in today’s dynamic healthcare marketplace. Frost & Sullivan notes that provider organizations must reshape strategies and tactics on how to best carry out their mission now and in the future while navigating a complex state of transition that could last for the next decade and beyond.

In their 2011 report Hospitals and Care Systems of the Future, the American Hospital Association (AHA) identified multiple, intersecting forces that are reshaping the industry, including:

- Population and disease demographics leading to increased demand for chronic care management
- Shift from fee-for-service reimbursement to value-based payments rewarding positive outcomes and efficiency of care processes
- Need to reduce care fragmentation by coordinating care processes and eliminating variations in care
- Rise in provider accountability for the quality of care
- Projected shortages of clinicians (physicians, nurses, and others)
- Decline in reimbursement and changing payer mix (shift to more government payers)
- Continuing uncertainty about federal and state healthcare reform and other legislative changes
- Growing pressure to curb unsustainable cost increases

Hospitals face special concerns as they confront falling inpatient volumes. Care delivery models are shifting to ambulatory providers in an effort to reduce costs and improve access and efficiency. Thus, in-patient environments today often consist of sicker patients that require more specialized and complex care than was previously the case. As hospitals seek to continue to provide high-quality care at affordable costs, Frost & Sullivan points out that the judicious management of human resources is increasingly essential. Labor costs are a huge part of any hospital’s budget - and everyone is taking a closer look at how workforce management can be improved.
While the percent of hospital costs allocated to labor varies by institution, the AHA estimates that, on average, around two-thirds of every dollar spent by a hospital goes to the wages and benefits of caregivers and other staff. Yet labor costs still continue to rise. In fact, the AHA finds that high labor costs have been one of the key drivers of hospital cost growth over the past several years. (AHA Trendwatch. The Cost of Caring, March 2011).

Frost & Sullivan monitors how healthcare labor costs are impacted by many factors. Hospital staffing is multifaceted, and many different types of workers contribute to patient care - both clinical and non-clinical. The healthcare industry continues to experience shortages of the mostly highly skilled workers, especially advanced care nurses and specialized physicians, which drives up compensation. In addition, an aging population coupled with a rise in chronic conditions requiring more medical intervention promises to exacerbate healthcare workforce shortages in the coming years. Furthermore, hospitals are also one of the most highly regulated industries - another factor that contributes to high labor costs.

Hospitals’ growing financial uncertainties must be met with strategic asset management, and people are clearly important and key assets for provider organizations. Workforce optimization is essential to any hospitals long-term financial viability. At times, workforce reductions are necessary. But simply cutting staff is not a feasible option in many cases due to regulatory issues pertaining to staff/patient ratios.

Hospitals can’t cut or reallocated labor blindly and must be constantly aware of potential pitfalls and impacts on patient care. The concept of smart workforce management as a key lever to improving the quality, safety and optimization of patient outcomes is imperative in an era of value-based reimbursement, where failure on these metrics can negatively impact the bottom line in the form of reduced payments and even potential costly fines. A recent report discussing future trends in the US healthcare workforce that was sponsored by the National Academy of Medicine (Lipstein SH, Kellermann AL, Berkowitz B et al. Workforce for 21st Century Health and Health Care: A Vital Direction for Health and Health Care, September 19, 2016) notes that the rise of value-based reimbursement, which entails significantly more financial risk for provider organizations, has given birth to a reformation of care delivery and management that is “intended to make care more patient-centric and person-centric while reining in health-care costs by keeping people healthy, reducing unnecessary treatment and duplication of services, emphasizing smooth continuity of care within and among sites, and improving the alignment between clinical need and delivery site”.
Information technology (IT) is essential to helping hospitals develop new competencies and to analyze core metrics around their new strategic priorities, including workforce management. Frost & Sullivan research finds that, as healthcare organizations re-envision and realign for a dramatically different future, they will increasingly turn to advanced IT solutions that help enable patient-centric, patient-targeted care models, stratified by health risk and the need for specific care resources including human resources. Frost & Sullivan analysis confirms that the market for workforce management solutions is poised for a significant growth trajectory as healthcare organizations ramp up their capabilities to allocate human resources in the most optimal and efficient way.

**Product Family Attributes and Business Impact**

**Empowers Healthcare Organizations’ Need to Improve Care Quality While Maximizing Operational Efficiencies**

One of the most significant challenges for healthcare providers is the need to develop new strategies for improving care quality while simultaneously containing cost inflation. Reducing excess labor costs is one way that hospitals may adapt to increasingly stretched financial resources. However, improving care quality often calls for targeting the most at-risk patients for special care interventions, often delivered by highly skilled (and expensive) nurses. Numerous complexities and considerations go into assigning caregivers to patients. Smart staffing for optimal patient care cannot take place in a vacuum.

Today, providers often face a disconnect between staffing to meet standard nurse/patient ratios and staffing in the most efficient and effective manner to positively influence patient outcomes. This is often due to a lack of clear and consistent information needed to match patient acuity levels with required nursing skills. While the right staffing starts with the right strategy, implementation of strategic staffing goals must also be supported with integrated and dynamic IT solutions that connect disparate data resources relevant to patients’ clinical status with information on staff skill levels and availability. This requires access to real-time data for insights into human resource allocation as well as the ability to track a range of productivity and quality metrics to ensure that labor costs are efficiently managed and patient care delivery is of consistent high quality.

As with other industries undergoing significant disruption and transformation, IT plays an essential role in helping healthcare organizations streamline and optimize operations, including workforce management. Workforce management solutions help hospitals connect limited human resources with clinical needs based on patient population demographics and patient flow. Hospitals increasingly seek trusted vendor partners that provide advanced, integrated workforce management solutions that help them understand what is happening in staffing and how to make the right adjustments to maximize productivity while minimizing unnecessary costs.
Frost & Sullivan notes that **GE Healthcare Centricity™ Solutions for Workforce Management** consists of a superior set of tools ideally matched to a wide range of needs unique to provider organizations. These integrated solutions are designed to enable healthcare organizations to improve care quality while delivering greater staffing efficiencies that help improve cost management. In utilizing GE Healthcare’s comprehensive workforce management technology suite, hospitals’ need to improve on both patient care and cost efficiencies is no longer contradictory.

**Drives Customer Value with Technically Advanced Solutions That Span the Entire Workforce Management Continuum**

Hospitals often face an intricate balancing act in delivering the right clinical, operational and administrative mix to achieve multiple goals and needs of the enterprise. Connecting all the dots for proactive and on-budget workforce strategic planning is almost impossible to achieve with paper-based systems given the increasing amount and type of data inputs needed. Automation is thus essential for smart, data-driven workforce management. Although some hospitals have yet to make the move from manual to automated workforce management, most do utilize some level of commercial or homegrown IT solutions for core workforce management functions (like staffing and scheduling). However, many hospitals have not yet automated the full complement of workforce management components or have limited or outdated solutions that are not suitable for a complex and constantly changing healthcare environment.

**GE Healthcare Centricity Solutions for Workforce Management** span the range of workforce management functions encompassing staffing and scheduling, patient classification, human resources, and talent management, payroll, and time/attendance software and data analytics. These solutions are specifically designed to meet the dynamic needs of healthcare organizations of all shapes and sizes. Further, the solutions interface with the hospital’s other core IT systems including EHRs, CPOE, Nursing Documentation, EMAR, ADT and census data. Customers can choose to deploy select modules to meet specific needs or adopt a comprehensive suite of integrated solutions that can transform an organization’s entire workforce management workflow.

The five core modules of **GE Healthcare Centricity Solutions for Workforce Management** comprise the following:

- **Staffing and Scheduling** - The essence of workforce management. Brands include the mobile-enabled Centricity™ ShiftSelect® and Centricity™ Staffing and Scheduling which can be configured to automate complex rules, regulations, and organization-specific policies.
**Patient Classification** – The core patient acuity solution used for matching the right patient to the right nurse at the right time. *Centricity™ Patient Classification* is built from validated content spanning over 15 years of nursing practice, observation and literature review.

**Time and Attendance** – A well-recognized industry leading solution that enables a proactive approach to the fundamental need to track and manage labor productivity. *Centricity™ Time and Attendance* helps hospitals automate policies, streamline processes, and control expenses. It integrates with staffing and scheduling as well as payroll.

**Human Resources and Payroll** – *Centricity™ Human Resources and Payroll* automates the management of payroll and benefit administration with rules-based engines that ensure accuracy and legislative compliance. It helps engage employees by providing transparency into benefits information.

**Business Analytics** – *Centricity™ Business Analytics* helps providers improve staff productivity and performance by putting data to work to proactively manage overtime and efficiently control labor costs. Customers can compare actual, target and budgeted productivity related information for all departments and create custom reports to help guide better staffing and productivity strategies.

**Enables Data Integration to Break Down Information Silos That Impede Enterprise Transformation**

Modern hospitals deploy a wide array of IT solutions. Typically, health IT can be divided into two primary categories — clinical and non-clinical — and each of these categories contains potentially hundreds of different software applications. Electronic health records (EHRs) are at the heart of clinical health IT and consist of a vast array of data that can be mined to gain insights on patient care needs. Non-clinical systems pertain to solutions used for financial and administrative operations, including human resources.

Preparing for the healthcare organization of the future requires adapting to the growth of integrated care delivery models that support value-based reimbursement. The paradigm shift to clinical integration also accelerates the need for a cohesive, holistic approach to workforce management to help meet the complexities of coordinating care across dispersed settings. Integrated care depends on integrated data; vast repositories of clinical and non-clinical data must come together to enable a more comprehensive view of clinical needs and available resources. However, data integration can be difficult in hospital environments where data and information often resides in disconnected silos across departments. To transform care, hospitals require an increasingly in depth understanding of patient flows and outcomes derived from specific actions – treatment plans as well as care process delivered by clinicians. Putting EHR data to work opens up a wealth of opportunities to take workforce automation and acuity-based staffing to the next
level, bringing new levels of precision and insight.

Frost & Sullivan points out that GE Healthcare properly understands that the advent of wide-spread adoption of EHRs presents an opportunity for the next generation of healthcare workforce automation. GE Healthcare employs an open interfacing strategy for its Centricity Solutions for Workforce Management and utilizes the latest technology to enable the seamless exchange of data with 3rd party systems. This helps customers break down data silos to create a more holistic view of what patients need and how staff can best meet those needs to ensure optimal outcomes.

Optimizes Employee Engagement with Solutions that Support Direct-to-Source and Collaborative Staffing Models

Hospitals realize that the right staffing is a key ingredient to ensuring safety, optimal care quality, and improved patient satisfaction. However, they face a highly competitive environment for attracting and retaining qualified, skilled employees, particularly nurses. Consequently, many are turning to advanced workforce automation tools with user-friendly and empowering features that employees, particularly younger generations, are increasingly coming to expect and rely upon. In fact, the ability for a hospital to offer customizable, mobile-enabled, transparent scheduling tools and other employee engagement solutions could even make the difference between hire and no hire—especially if local competitors provide these capabilities.

**GE Healthcare Centricity Solutions for Workforce Management** helps hospitals leverage the right workforce management technology that helps keep essential employees — both traditional full-time employees and contingent or per diem workers — productive, committed, satisfied, and engaged. In doing so, GE Healthcare supports two essential concepts needed to optimize healthcare workforce efficiency and engagement: direct-to-source and collaborative staffing. Direct-to-source pertains to the alignment of supply and demand, which is so critical for the efficient allocation of skilled clinicians. In a collaborative staffing approach, the focus is not on the traditional manager-dominated, top-down staffing model, but rather on a ground-up, inclusive model that allows employees to take a more active and engaged role in their work. With collaborative staffing, employers and staff work together to develop schedules that offer team members a better balance of individual preferences while accounting for patient coverage needs. GE Healthcare’s collaborative staffing approach is enabled by its *Centricity ShiftSelect* and *Centricity Staffing and Scheduling* which feature self-scheduling and open shift management capabilities which provide visibility into shift availability.

Frost & Sullivan appreciates the fact that GE Healthcare helps hospitals drive down costs through better staff utilization, as opposed to staff reduction. GE’s collaborative staffing approach helps hospitals achieve a clear competitive advantage by offering comprehensive workforce management solutions that provide flexibility, control and transparency to employees seeing an appropriate work-life balance.
Ensures Customers’ Needs for Flexible Deployment Options Suitable for Healthcare Organizations of Every Size

The pace of change in healthcare and the need to implement a variety of new IT solutions can complicate IT purchasing decisions as there is more competition for limited resources. Hospitals have been focused on clinical solutions like EHRs and are now turning to operations optimization IT solutions including workforce management. Today, hospitals face an imperative to bring more data and evidence-based decision support to patient care and workforce management but seek guidance on the best approach for deploying new technology that supports new processes. For IT vendors, consideration of customers’ full range of needs means offering a customized, flexible approach to IT deployment so that strategy objectives can be achieved with minimal disruption and expense. GE Healthcare provides solutions for healthcare organizations of all types and sizes and places a high emphasis on focusing on the customer’s unique needs to ensure the best ROI.

**GE Healthcare Centricity Solutions for Workforce Management** offers three deployment models for customers — on premise, hosted, and cloud (SaaS). Offering cloud-based solutions is critical to helping customers transform operations. The provision of healthcare services continues to expand beyond the four walls of the hospital or doctor’s office. While much of healthcare remains entrenched in legacy, on premise IT solutions, healthcare organizations are becoming more comfortable with cloud-based applications.

Flexible, cloud-based solutions are essential for an increasingly mobile workforce where 24/7 accessibility is key for on-the-go employees and human resource managers. GE also recognizes the importance of ongoing post-deployment engagement with customers, an area where many of its competitors often lag. Continuous communication with customers is particularly critical when working with provider organizations switching in part or in total from manual systems, a scenario which can often present special challenges and risks. Healthcare customers must be assured that data is consistent, timely, and complete so that they feel comfortable basing critical decisions on this information. Working with highly experienced vendor partners such as **GE Healthcare Centricity Solutions for Workforce Management** ensures greater confidence that critical staffing processes will not be unduly disrupted when replacing or upgrading legacy workforce management systems.

**Focuses Exclusively on Healthcare’s Unique Workforce Management Needs**

While other industries have embraced smart staffing supported by advanced IT systems, hospitals are somewhat late to the game. That scenario is rapidly changing. Healthcare transformation is driving a new emphasis on maximizing the effectiveness and productivity of healthcare workers, a large and complex group comprised of many different occupations. According to the Bureau of Labor Statistics, the healthcare industry currently accounts for one-fifth of US jobs and will constitute the fastest growing occupational segment in the next decade. The healthcare workforce of the future is realigning for the new era of clinical integration and healthcare organizations are focused on recruiting,
educating and maintaining “a diverse health and healthcare workforce that is comfortable working collaboratively in interdisciplinary teams, is technically skilled, and is adept at harnessing the capabilities of modern health-information technology”. (Lipstein SH, Kellermann AL, Berkowitz B et al. Workforce for 21st Century Health and Health Care: A Vital Direction for Health and Health Care, September 19, 2016)

Frost & Sullivan agrees that this shift in healthcare labor priorities presents significant growth opportunities for GE Healthcare. The company’s strong suite of workforce optimization solutions derives from its 2014 acquisition of API Healthcare Corporation, which was founded in 1982 and has enjoyed a long tenure as a workforce technology vendor focused solely on serving healthcare customers. API Healthcare’s dedication to healthcare has been a critical factor in its 30 plus years of success. Healthcare is more complex than other industries and provider organizations often prefer to depend upon vendors experienced with the particular nuances of their industry. This is an important consideration today, as the market for workforce management solutions is highly competitive, and more and more vendors are expected to enter the field in light of strong growth opportunities. This is where GE Healthcare has a distinct advantage. The acquisition of API Healthcare aligns perfectly with GE’s focus on IT optimization and its intention to invest $2 billion to make healthcare organizations more productive with the use of advanced IT and analytics. GE brings a wealth of new capabilities to the legacy API Healthcare solutions suite. The acquisition has been a positive step in the next evolution of bringing excellence to API Healthcare’s workforce management solutions. The strong R&D capabilities and financial resources that GE provides enables and accelerates a visionary product road map that will further help providers align their workforce strategies with rapidly changing market dynamics.

**Conclusion**

As hospitals move to new models of care delivery, the need to more efficiently and proactively manage its most vital resource—its employees—grows. Staffing optimization is imperative for hospitals, made even more so as the industry navigates increasing uncertainties associated with the shift to value-based care and other market challenges. **GE Healthcare Centricity Solutions for Workforce Management** helps hospitals match staffing with patient needs, increase employee engagement and retention, simplify complex regulatory requirements, and reduce labor costs by enabling efficient allocation of human resources. With GE’s advanced, integrated workforce solutions, hospitals can easily make sense of a range of changing dynamics. GE’s solutions help ensure workloads are balanced for a better patient and employee experience resulting in improved outcomes. With its strong overall market performance, **GE Healthcare’s Centricity Solutions for Workforce Management** has earned the 2017 Frost & Sullivan Product Leadership Award.
Significance of Product Leadership

Ultimately, growth in any organization depends upon customers purchasing from a company, and then making the decision to return time and again. A comprehensive product line, filled with high-quality, value-driven options, is the key to building an engaged customer base. To achieve and maintain product excellence, an organization must strive to be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.

Understanding Product Leadership

Demand forecasting, branding, and differentiation all play a critical role in finding growth opportunities for a superior product line. This three-fold focus, however, must be complemented by an equally rigorous focus on pursuing those opportunities to a best-in-class standard. Customer communications, customer feedback, pricing, and competitor actions must all be managed and monitored for ongoing success. If an organization can successfully parlay product excellence into positive business impact, increased market share will inevitably follow over time.
Key Benchmarking Criteria

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

Product Family Attributes

Criterion 1: Match to Needs
Criterion 2: Reliability and Quality
Criterion 3: Product/Service Value
Criterion 4: Positioning
Criterion 5: Design

Business Impact

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

Best Practice Award Analysis for GE Centricity™ Solutions for Workforce Management

Decision Support Scorecard

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Scorecard. This tool allows our research and consulting teams to objectively analyze performance, according to the key benchmarking criteria listed in the previous section, and to assign ratings on that basis. The tool follows a 10-point scale that allows for nuances in performance evaluation; ratings guidelines are illustrated below.

RATINGS GUIDELINES

The Decision Support Scorecard is organized by Product Family Attributes and Business Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criteria are provided beneath the scorecard). The research team confirms the veracity of this weighted scorecard through sensitivity analysis, which confirms that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.
The results of this analysis are shown below. To remain unbiased and to protect the interests of all organizations reviewed, we have chosen to refer to the other key players as Competitor 2 and Competitor 3.

<table>
<thead>
<tr>
<th>Product Leadership</th>
<th>Product Family Attributes</th>
<th>Business Impact</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE Healthcare</td>
<td>10.0</td>
<td>10.0</td>
<td>10.00</td>
</tr>
<tr>
<td>Competitor 2</td>
<td>9.0</td>
<td>9.5</td>
<td>9.250</td>
</tr>
<tr>
<td>Competitor 3</td>
<td>9.0</td>
<td>9.0</td>
<td>9.000</td>
</tr>
</tbody>
</table>

**Product Family Attributes**

**Criterion 1: Match to Needs**
Requirement: Customer needs directly influence and inspire the design and positioning of the product family

**Criterion 2: Reliability and Quality**
Requirement: Products consistently meet or exceed customer expectations for performance and length of service

**Criterion 3: Product/Service Value**
Requirement: Products or services offer the best value for the price, compared to similar offerings in the market

**Criterion 4: Positioning**
Requirement: Products or services unique, unmet need that competitors cannot easily replicate or replace

**Criterion 5: Design**
Requirement: The product features an innovative design, enhancing both visual appeal and ease of use

**Business Impact**

**Criterion 1: Financial Performance**
Requirement: Strong overall financial performance in terms of revenues, revenue growth, operating margin and other key financial metrics

**Criterion 2: Customer Acquisition**
Requirement: Product strength enables acquisition of new customers, even as it enhances retention of current customers
Criterion 3: Operational Efficiency  
Requirement: Staff is able to perform assigned tasks productively, quickly, and to a high quality standard

Criterion 4: Growth Potential  
Requirements: Product quality strengthens brand, reinforces customer loyalty and enhances growth potential

Criterion 5: Human Capital  
Requirement: Company culture is characterized by a strong commitment to product quality and customer impact, which in turn enhances employee morale and retention

Decision Support Matrix  
Once all companies have been evaluated according to the Decision Support Scorecard, analysts can then position the candidates on the matrix shown below, enabling them to visualize which companies are truly breakthrough and which ones are not yet operating at best-in-class levels.
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.
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.