2017 North American EHR and Practice Management Systems in Oncology Visionary Innovation Leadership Award
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Background and Company Performance

Industry Challenges

A Massive Economic and Social Burden: Cancer

Cancer is the second leading cause of death in the United States (US). The National Cancer Institute (NCI) estimates over 1.6 million new cancer cases occurred in 2016, with more than 595,000 people dying from the disease—beyond 1,600 people per day. With an aging population, the cancer burden is increasing exponentially. The NCI projects care costs at $174 billion by 2020—a 39% increase over 2010.¹

The Redeemer: Emerging Value-based Healthcare Delivery

Frost & Sullivan actively monitors how the 2010 Affordable Care Act enactment resulted in economic pressures and regulations that transformed the US healthcare landscape from a fee-for-service (FFS) to a value-based care model. Government initiatives and incentives around the Triple Aim initiative—quality enhancement, access improvement, and cost reduction—seek to connect all patient care settings. Notably, the Centers for Medicare and Medicaid Services (CMS), the single largest insurer in the US, advocates for new payment models that explicitly reward providers for delivering better value and quality care to patients. For instance, the Oncology Care Model (OCM), one of several different delivery and payment models developed by the CMS Innovation Center—CMMI—aims to improve cancer care while lowering costs significantly. OCM aligns provider incentives, including performance-based compensation, for improved patient-centered quality care through an episode-based (or bundled) payment model—covering chemotherapy and all related care during a six-month period following treatment initiation.

The Dilemma

Frost & Sullivan notes that cancer centers and community-based cancer clinics must restructure their practices to meet the evolving, value-driven landscape after decades of supporting FFS processes. However, providers are struggling to achieve the Triple Aim goals. When a patient is diagnosed with cancer, they enter into a partnership with the healthcare system, heavily dependent on multidisciplinary, coordinated, and long-term care for best health outcomes. The complexity and long-term nature of cancer management make tracking the patient’s journey quite difficult, often resulting in inefficiencies across clinical, operational, and financial functions, thus leading to failure to contain costs, drive revenue growth, and, most importantly, render quality care. Furthermore, cancer’s clinical variability and molecular heterogeneity alongside the rapid pace of scientific discovery and technological development pose additional challenges for targeted therapeutics. Providers must optimize oncology treatments based on disparate information systems and research while keeping pace with the constant data flow on disease progression for each cancer type.

¹ [https://costprojections.cancer.gov/](https://costprojections.cancer.gov/)
The Challenge

Notably, in oncology, current analytics solutions do not comprehensively collect and analyze data from the point of care. From genomics and proteomic information to electronic health records (EHR) data coupled with treatment decisions, clinical outcomes, and follow-up care across over 300 different malignancies, Frost & Sullivan points out that properly managing and understanding the copious amounts of information is a daunting task. The large and fragmented information technology vendor landscape as well as the amount of unstructured data collected as part of routine clinical care mostly result in niche software solutions providing siloed information with limited content—requiring separate analysis and reporting processes for actionable insights—and sometimes outdated, as many necessitate manual data acquisition and maintenance.

As the CMS compels more cancer centers and community-based oncology practices to meet reporting and clinical performance measures, Frost & Sullivan considers that greater connectivity and more robust data processing techniques are critical to long-term success. While an extremely competitive, capital-intensive, and high-risk venture, comprehensive patient-centered cancer care presents significant growth opportunities for technology vendors with integrated, oncology-specific health IT solutions proposing full EHR, practice management, analytics, and clinical trial management capabilities.

Focus on the Future and Best Practices Implementation

Founded in 2012, New York-based Flatiron Health (Flatiron) develops oncology software and services to accelerate research and improve the treatment options.

Empowering Intelligent Healthcare

Big Data is essential from the perspective of connected healthcare. Through predictive analytics and semantic reasoning, Big Data allows managing enormous and varied amounts of data from multiple sources to facilitate effective decisions.

Flatiron’s founders, Zach Weinberg and Nat Turner, set out to transform cancer care harnessing the power of analytics for improved decision-making and greater collaboration across health systems. The founders realized only an integrated, comprehensive solution could bring the long-awaited and much-needed change. In 2014, Flatiron acquired Altos Solutions, adding industry-leading OncoEMR® to its product suite. The company then unveiled the OncoCloud™ product suite, its latest platform version, in 2016. With enhanced capabilities and features, Flatiron also zeroes in on CMMI’s reporting requirements to further help oncology providers in their transition to value-based care. The company’s customer base has increased substantially over the last two years, which Frost & Sullivan views as a strong indicator of OncoCloud’s clear value. Flatiron’s best-in-class oncology software platform serves over 265 community-based oncology clinics and approximately 2,500 health providers. About 30% of oncologists participating in the OCM will be able to meet requirements due to Flatiron’s software and services.
The OncoCloud Suite includes:

- **OncoEMR®**—First certified by the Office of the National Coordinator-Authorized Testing and Certification Bodies, oncology-specific EHR tailored to clinical workflows and providers’ needs.

- **OncoAnalytics®**—First-of-its-kind analytics tool unlocks data from multiple systems, enabling clinical, financial, and operational insights to improve clinical efficiency and optimize practice management.

- **OncoBilling®**—Practice management and financial tools simplify and streamline oncology-specific billing and claims processes.

- **OncoTrials®**—Powered by EHR data and built specifically for clinical research teams, OncoTrials efficiently identifies and screens patients for clinical trials.

Also powered by the OncoCloud suite, Flatiron supports providers’ transition to the Merit-based Incentive Payment System (MIPS) and OCM via EHR-integrated OCM and MIPS modules—an important product value proposition, as most providers presently have insufficient knowledge of these progressive and quality-driven healthcare reimbursement frameworks and must pull these metrics manually.

While different products, OncoEMR, OncoAnalytics, OncoBilling, and OncoTrials all work together seamlessly, providing distinct layers - separate yet additive to their core product, the EHR. For instance, pulling information from OncoEMR and leveraging Flatiron’s hallmark product OncoAnalytics helps providers discern quality and performance measurements for alternative payment models, like OCM. It also allows practices’ billing teams to identify if they miss or incorrectly bill for drugs and enables operational teams to follow drug utilization across their practice, physicians, locations, and diagnosis. Moreover, the company’s connected platform tracks the information in near real-time, ensuring up-to-date, robust, and reliable data to drive proper and timely clinical, operational, and financial decisions. These highly curated datasets help providers unlock value from their EHR data. Clinicians now have access to insights from within their practices and others across the country that aid with quality assessment and improvement activities.

The de-identified real-world datasets also support research efforts, including patterns of care, precision medicine, development and validation of new models to explore treatment outcomes, clinical trial design, and ultimately novel cancer therapy development. This evidence-based approach aligns with the value-driven landscape, potentially bridging the knowledge gap between clinical trials and clinical practice while pushing for further advances in personalized medicine.

In a complex and dynamic healthcare landscape, the company continuously strengthens its comprehensive and integrated oncology-specific software-as-a-service solution through cutting-edge technology-based applications aligned with value-based care delivery. Altogether, Frost & Sullivan appreciates how Flatiron’s software suite uniquely offers a
secure, scalable, oncology health IT solution to help face the billion-dollar US cancer challenge.

**Flatiron’s Quest: For the Patient**

Flatiron’s end goal is to improve treatment options and accelerate cancer research. Historically siloed, the company seeks to enable cross-functional collaboration by assembling the best and brightest oncology minds to improve patients’ lives through technology. The venture-backed technology company leverages its powerful mix of multidisciplinary expertise—top software engineers, data scientists, and oncologists—with real-world evidence to advance clinical workflows and research tools.

With an unwavering commitment to impact care delivery at a national scale, Flatiron partners with cancer centers, world-class academic research centers, top therapeutic oncology companies (e.g., Roche), the NCI, and the Food and Drug Administration (FDA) to create a more collaborative approach to cancer care and research. Through what is known as a learning healthcare system, where the learnings from one patient’s experience are reinvested into the larger healthcare system to advance research, Flatiron brings all key stakeholders together, embarking on a disruptive approach to clinical research and development.

"We [Flatiron] are working to develop a platform that bridges clinical care, healthcare operations, and research in a fundamentally patient-centric way to ultimately improve the health of patients and practices."

- Dr. Brenton Fargnoli, Medical Director of Value-based Care, Flatiron

With over 2 million patients supported by Flatiron’s software, the company steadily inches closer towards the ultimate goal—a gold standard in oncology care and research to create better treatments for improved patient outcomes. Frost & Sullivan firmly believes that the company will continue to show strong growth in the market; high-value, quality cancer care is a top priority as the healthcare industry turns to the future.
Conclusion

Cancer is the second leading cause of death in the United States. The cancer burden is increasing exponentially, with care costs projected at $174 billion by 2020. Mostly fragmented and siloed, current health information technology solutions offer limited access to information, leading to failure to contain costs, drive revenue growth and, most importantly, render quality care.

Frost & Sullivan’s independent research identifies Flatiron’s OncoCloud™ Suite as the best-in-class oncology software platform, helping oncology practices transition smoothly into value-based clinical, operational, and business strategies through greater system connectivity and interoperability and deeper analytical insights. With an early-mover advantage, strong multidisciplinary team, and over $328 million raised in funding, the company firmly leads the way in oncology-specific EHR and practice management solutions, promoting cost-effective, patient-centric, and coordinated cancer care.

With its commitment to advancing the value of care delivered and improving health outcomes for cancer, Flatiron Health earns the 2017 Frost & Sullivan Visionary Innovation Leadership Award.
Significance of Visionary Innovation Leadership

A Visionary Innovation Leadership position enables a market participant to deliver highly competitive products and solutions that transform the way individuals and businesses perform their daily activities. Such products and solutions set new, long-lasting trends in how technologies are deployed and consumed by businesses and end users. Most importantly, they deliver unique and differentiated benefits that can greatly improve business performance as well as individuals’ work and personal lives. These improvements are measured by customer demand, brand strength, and competitive positioning.

Understanding Visionary Innovation Leadership

Visionary Innovation is defined by Frost & Sullivan as the ability to innovate today in the light of perceived changes and opportunities that will arise from Mega Trends in the future. It is the ability to scout and detect unmet (and as yet undefined) needs and proactively address them with disruptive solutions that cater to new and unique customers, lifestyles, technologies, and markets. At the heart of visionary innovation is a deep understanding of the implications and global ramifications of Mega Trends, leading to correct identification and ultimate capture of niche and white-space market opportunities in the future.
Key Benchmarking Criteria
For the Visionary Innovation Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Focus on the Future and Best Practices Implementation—according to the criteria identified below.

Focus on the Future
- Criterion 1: Focus on Unmet Needs
- Criterion 2: Visionary Scenarios through Mega Trends
- Criterion 3: Growth Pipeline
- Criterion 4: Blue Ocean Strategy
- Criterion 5: Growth Performance

Best Practices Implementation
- Criterion 1: Vision Alignment
- Criterion 2: Process Design
- Criterion 3: Operational Efficiency
- Criterion 4: Technological Sophistication
- Criterion 5: Company Culture
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.

<table>
<thead>
<tr>
<th>STEP</th>
<th>OBJECTIVE</th>
<th>KEY ACTIVITIES</th>
<th>OUTPUT</th>
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</thead>
<tbody>
<tr>
<td>1. Monitor, target, and screen</td>
<td>Identify Award recipient candidates from around the globe</td>
<td>• Conduct in-depth industry research  • Identify emerging sectors  • Scan multiple geographies</td>
<td>Pipeline of candidates who potentially meet all best-practice criteria</td>
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<tr>
<td>2. Perform 360-degree research</td>
<td>Perform comprehensive, 360-degree research on all candidates in the pipeline</td>
<td>• Interview thought leaders and industry practitioners  • Assess candidates’ fit with best-practice criteria  • Rank all candidates</td>
<td>Matrix positioning of all candidates’ performance relative to one another</td>
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<tr>
<td>3. Invite thought leadership in best practices</td>
<td>Perform in-depth examination of all candidates</td>
<td>• Confirm best-practice criteria  • Examine eligibility of all candidates  • Identify any information gaps</td>
<td>Detailed profiles of all ranked candidates</td>
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<tr>
<td>4. Initiate research director review</td>
<td>Conduct an unbiased evaluation of all candidate profiles</td>
<td>• Brainstorm ranking options  • Invite multiple perspectives on candidates’ performance  • Update candidate profiles</td>
<td>Final prioritization of all eligible candidates and companion best-practice positioning paper</td>
</tr>
<tr>
<td>5. Assemble panel of industry experts</td>
<td>Present findings to an expert panel of industry thought leaders</td>
<td>• Share findings  • Strengthen cases for candidate eligibility  • Prioritize candidates</td>
<td>Refined list of prioritized Award candidates</td>
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<tr>
<td>6. Conduct global industry review</td>
<td>Build consensus on Award candidates’ eligibility</td>
<td>• Hold global team meeting to review all candidates  • Pressure-test fit with criteria  • Confirm inclusion of all eligible candidates</td>
<td>Final list of eligible Award candidates, representing success stories worldwide</td>
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<td>7. Perform quality check</td>
<td>Develop official Award consideration materials</td>
<td>• Perform final performance benchmarking activities  • Write nominations  • Perform quality review</td>
<td>High-quality, accurate, and creative presentation of nominees’ successes</td>
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<td>8. Reconnect with panel of industry experts</td>
<td>Finalize the selection of the best-practice Award recipient</td>
<td>• Review analysis with panel  • Build consensus  • Select recipient</td>
<td>Decision on which company performs best against all best-practice criteria</td>
</tr>
<tr>
<td>9. Communicate recognition</td>
<td>Inform Award recipient of Award recognition</td>
<td>• Present Award to the CEO  • Inspire the organization for continued success  • Celebrate the recipient’s performance</td>
<td>Announcement of Award and plan for how recipient can use the Award to enhance the brand</td>
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<tr>
<td>10. Take strategic action</td>
<td>Upon licensing, company is able to share Award news with stakeholders and customers</td>
<td>• Coordinate media outreach  • Design a marketing plan  • Assess Award’s role in future strategic planning</td>
<td>Widespread awareness of recipient’s Award status among investors, media personnel, and employees</td>
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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 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.