



Transforming Healthcare Through Excellence in Patient Experience

New Digital Technologies to Educate and Engage Patients

A Frost & Sullivan White Paper

www.frost.com

Nancy Fabozzi

March 12, 2018

Introduction 3

Why Healthcare CEOs are Focused on Maximizing Patient Experience 3

Patient Experience as the Cornerstone of Patient-centric Care..... 6

Patient-centric Care and the Quadruple Aim..... 8

The New Strategic Imperative for Improving Patient Education..... 9

What to Look for in the Ideal Patient Education System 11

Improved Patient Education Benefits the Entire Healthcare System 12

Summary..... 14

INTRODUCTION

The digital revolution has radically altered the playbook for customer experience and relationship management. The concept references the ubiquitous online connectivity that envelops almost every aspect of modern life, including banking, retail, travel, entertainment, social networking, and, increasingly, healthcare.

Digitally enabled consumers expect and demand high levels of service and efficiency as well as continuous innovation. For example, people want all their digital interactions to reflect the same simple, easy online experience they have daily with Google, Amazon, Twitter and the like. Today, the expectation of the user-friendly online experience has become firmly ingrained in our collective psyche. Consequently, the bar for any online—and even offline—customer experience has been permanently raised. That's why every commercial enterprise is intently striving to do better at how they attract, engage, and delight customers in the digital era. It's a whole new world and it impacts all businesses. Healthcare organizations need to step up to the challenge.

The following discussion provides insights on how new digital tools and approaches to patient education and engagement can be leveraged to ensure a great patient (and provider) experience that is the cornerstone of patient-centric, value-based care and healthcare transformation.

WHY HEALTHCARE CEOS ARE FOCUSED ON MAXIMIZING PATIENT EXPERIENCE

Healthcare organizations are devoting significant time and energy to developing new strategies and processes for patient-centric care. A heightened awareness of the importance of the total patient experience aligns closely with four key market forces:

I. The Rise of Empowered Consumers

A confluence of cultural and societal changes motivates individuals to become more empowered as consumers. It's helpful to think about the rise of consumerism in healthcare as a phenomenon that converges within the broader societal context of consumer empowerment. For individuals, becoming empowered pertains to gaining understanding, confidence, and strength. It's a frame of mind that results in a stronger sense of control over one's circumstances as well as a greater sense of well-being and satisfaction.

The progression to empowerment is greatly facilitated when the right information, knowledge, and awareness come together to guide life choices and decision making. Today, people have almost constant access to data and information through digital technology. The ease and speed of information acquisition are critical to consumers' growing feelings of empowerment. In addition to ease of acquisition and continuous availability, the information sought must be reliable, trustworthy, accurate, relevant, and targeted to the seeker's intended purpose.

It also elevates their expectations for service and satisfaction.

Digital technologies serve an important role in helping people connect with both peers and advice givers/seekers to share information, experiences, and ideas via social media. Participation in social media is an empowering process for many people. In our smartphone-obsessed society, this trend promises to grow exponentially across all age groups but especially with the rise of digital-native millennials.

In the context of healthcare, cultural attitudes are evolving from conceptualizing the patient as a mostly passive recipient of whatever treatment the doctor decides (the provider-centric model) to recognition of a more active, engaged patient/consumer that works in conjunction with caregivers to realize the best possible health outcome (the patient-centric model).

Healthcare consumerism is increasingly positioned as the solution to many of the problems that plague the US healthcare system. That's because of the concept of "accountability." Being more accountable is a notion that extends across the healthcare ecosystem, encompassing not just payers and providers but also patients who increasingly need to do more and pay more.

Empowered consumers and patients want to be—and need to be—a full member of the healthcare team. This new reality is mostly positive, but it is not without some risks. For example, many, perhaps most, people begin their online health information journey with a visit to "Dr. Google." That's not necessarily bad, but some searches may result in the retrieval of wrong, misleading, or inappropriate information which can either cause false empowerment or undue anxiety. Consequently, clinicians need to spend time correcting—or calming down—misinformed patients. Therefore, access to accurate information promotes a stronger connection between the patient and the healthcare team, providing the nexus for patient-centric models that drive high levels of engagement and activation.

2. The Shift to Value-based Care

The US healthcare system is shifting away from traditional fee-for-service (FFS) toward fee-for-value reimbursement that rewards providers based on the quality of care rather than the quantity of care. Value-based care comes with increased financial risk. Therefore, care delivery must be re-engineered to ensure economic viability under this new business model. Consequently, providers are developing new strategies for better alignment of care processes to ensure collaboration with key stakeholders, including patients and their families, to ensure optimal health outcomes and maximum reimbursement.

With its emphasis on enabling a more holistic care continuum, value-based care is seen as the best approach to reining in unsustainable healthcare costs while also improving care quality, and, ideally, patient engagement and satisfaction.

The term "patient engagement" is increasingly used to convey the idea of consumerism or consumer-directed healthcare. The Center for Advancing Health defines patient engagement as "actions individuals must take to obtain the greatest benefit from the healthcare services available to them" (*Source: Center for Advancing Health: A New Definition of Patient Engagement: What is Engagement and Why is it Important? 2010*). For patients, these actions involve taking on more personal responsibility to learn about how to care for themselves beyond what happens within the four walls of the hospital or doctor's office, including managing a chronic condition or preparing for a medical procedure or hospitalization.

Why is patient engagement an important component of value-based care? Studies have shown that patients who are involved in their health decisions are more likely to cooperate and understand their disease process. In addition, educated, engaged consumers tend to have better outcomes at lower resource utilization (*Source: Health Affairs; Health Policy Brief: Patient Engagement, February 14, 2013*). The patient engagement movement is real, but barriers still exist as many consumers still lack the interest and motivation needed to take a more proactive role in their health. Providers must continue to encourage patient engagement and ensure that efforts are sustainable to positively impact health outcomes. Fortunately, a variety of new strategies have been developed that encourage and motivate patients to become more involved in decisions about their care. These strategies include increased deployment of a range of consumer-facing digital solutions, including digital educational content, wearable sensors, mobile apps, and other tools.

3. Changing Competitive Dynamics

The rapid pace of change across the US healthcare ecosystem is placing increasing competitive pressures on payer and provider organizations. Hospitals, in particular, face new challenges and threats in the form of alternative care settings, including independently owned urgent care and outpatient surgery centers, primary care chains, retail pharmacy clinics, and direct-to-consumer telehealth services. Accelerating hospital M&A, the growing incidence of vertical M&A with payers purchasing providers, and health plan narrow networks all call for hospitals to look for new approaches to attract and retain customers in the face of declining admissions and shrinking margins. Another important market dynamic (and one that is key in driving the rise of healthcare consumerism) is the need for patients to take on more financial responsibility for their healthcare costs. Rising premiums and larger out-of-pocket liabilities are driving patients to explore a range of new options for care. For patients, more choices mean more questions. As consumers, patients will increasingly demand educational, decision-support tools to better understand and manage all aspects of their care. Provider organizations that are prepared to meet this demand with vetted, high-quality digital tools can gain an important competitive advantage.

The demands of consumerism and the shift to value-based reimbursement require all healthcare enterprises to embrace a more patient-centric mindset as a competitive necessity. To that end, healthcare organizations must work proactively to build a positive brand and ensure that patients have a great experience overall.

4. Patient Satisfaction Surveys (HCAHPS)

The Centers for Medicare & Medicaid Services (CMS) launched the HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) survey in 2006 to systematically collect data about patients' perspectives of hospital care. Since that time, HCAHPS has become one of the most important tools for assessing providers' progress in delivering on the goals of patient-centric care.

HCAHPS is part of CMS' broader goals in the shift to value. Hospitals are strongly incented to pay attention to the ramifications of HCAHPS due to its impact on their bottom line. HCAHPS scores are used to calculate 30% of value-based incentive payments for participating hospitals. Furthermore, providers with low HCAHPS scores could be financially penalized. In addition, the HCAHPS survey, its methodology, and data are in the public domain, posted on the CMS Hospital Compare websites. Therefore, scoring well on HCAHPS (that is, achieving a five-star quality rating) is essential for reputation-building and competitive advantage. HCAHPS consists of 27 questions, 18 of which pertain to important aspects of care delivery such as availability of nurses, pain management, cleanliness, noise levels, and care instructions. One way to improve HCAHPS is through developing comprehensive patient education programs designed to improve the total patient experience. As patients are more educated and feel a stronger sense of connection to their own healthcare and system, their overall patient experience and satisfaction is likely to go up.

As the culture of health consumerism rises, patients will become more attuned to choices they are empowered to make. Publicly accessible health system ratings will increasingly factor into patients' information-seeking behavior, helping them differentiate between healthcare service providers and systems.

Market Forces Aligning for the New Focus on Patient Experience



Patient-centric care is a key strategic and competitive priority for healthcare enterprises as the industry undergoes radical changes designed to transform care delivery and reimbursement while improving patient experience.

Source: Frost & Sullivan

PATIENT EXPERIENCE AS THE CORNERSTONE OF PATIENT-CENTRIC CARE

Patient experience is complex and multi-faceted, and healthcare stakeholders utilize a variety of ways to define and measure the concept. The Agency for Healthcare Research and Quality (AHRQ) defines patient experience as the totality of expectations, feelings, needs, and preferences an individual might typically have during a healthcare encounter (Source: *AHRQ: What Is Patient Experience? March 2017*). It's the cumulative evaluation and perception of the entire healthcare pathway as experienced from the patient's perspective. Patient experience incorporates clinical aspects of care such as treatment, pain control, sleep/rest, medical outcomes, and so on that occur before, during, and after healthcare encounters. It also includes important non-clinical aspects of care, including appointment scheduling, wait times, parking, clarity on directions to check-in locations, cleanliness, characteristics of the care environment, staff attitude, and similar issues. Simplicity is also a key factor driving positive patient experience. Potentially stressful situations can be made more comfortable with the aid of accurate, concise information delivered in an easy to understand way.

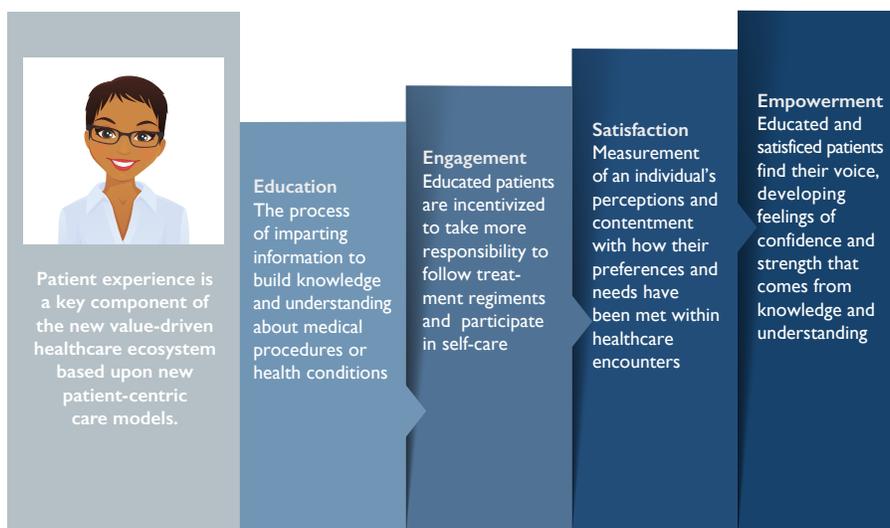
While the terms “patient satisfaction” and “patient experience” are often used interchangeably, experts agree that understanding patient experience requires a more in-depth and comprehensive look at all aspects of healthcare encounters, including interactions between patients and providers, the care environment, and, increasingly, materials, tools, and processes used to educate and engage patients for self-care.

Studies show that patients highly value easy access to information and good communication with healthcare providers when seeking and receiving care (Source: Berkowitz, B. (January 31, 2016). “The Patient Experience and Patient Satisfaction: Measurement of a Complex Dynamic,” *OJIN: The Online Journal of Issues in Nursing* Vol. 21, No. 1, Manuscript 1).

From a patient’s perspective, good communication is enabled when they are confident that healthcare providers are open and receptive to addressing their questions. They want providers that not only have the appropriate education and knowledge to provide the right information but also have the time and willingness to engage in direct conversations as well as guide patients to other appropriate content or resources that can further address their concerns.

Good communication between patients and providers is not just essential for achieving strong HCAHPS scores but also can significantly impact patient safety and care quality. When patients do not fully understand—or even misunderstand—information about their condition or medical care, non-compliance or mistakes can occur, thereby potentially adversely impacting health outcomes, which can result in exacerbation of illness and early hospital readmission. Thus, good communication and education are important factors influencing patient experience.

What is Patient Experience?



Patient Experience = The totality of expectations, feelings, needs, and preferences an individual might typically have during a healthcare encounter.

Source: Frost & Sullivan

PATIENT-CENTRIC CARE AND THE QUADRUPLE AIM

The Triple Aim, developed by the Institute for Healthcare Improvement (IHI) in 2007, poses three key goals that must be pursued simultaneously to achieve healthcare transformation: 1) improve patient care experience; 2) improve the health of populations; and 3) reduce per capita healthcare costs. The Triple Aim has become a standard framework and compass for optimizing health system performance. A new concept has recently emerged that expands upon its important goals—the need to improve clinician experience. The notion of the “Quadruple Aim” is a response to the growing incidence of burnout and dissatisfaction among clinicians. Burnout is associated with lower patient satisfaction, reduced health outcomes, and potentially increased costs, all of which imperil the goals of the Triple Aim (Source: Bodenheimer, T. and Sinsky, C. *From Triple to Quadruple Aim: Care of the Patient Requires Care of the Provider. Annals of Family Medicine (12:6), November/December, 2014*). Clinician experience has been overlooked as a key ingredient in patient-centric care and healthcare transformation. Dissatisfied, exhausted doctors and nurses are more likely to make mistakes, miss important clinical signs, and have less empathy and poorer communication skills—all of which can result in costly patient safety risks and overall poor experience.

Consistent, accurate, and customizable patient education not only improves patient experience but also works to improve clinician experience. When patients are more informed with targeted, curated information, they come to the healthcare experience with better understanding and are thus able to ask better questions. This higher level of engagement is also more satisfying to clinicians whose role as educator is enhanced by interacting with patients who are less worried and less anxious because they are prepared and in a better frame of mind to take in—and retain—more information and detail about their case or procedure. This scenario saves time and prevents unnecessary added stress for everyone involved.

The Quadruple Aim



The Quadruple Aim—better outcomes, lower costs, and better patient and clinician experience – serves as a compass to optimize health system performance.

Source: Institute for Healthcare Improvements and Frost & Sullivan

THE NEW STRATEGIC IMPERATIVE FOR IMPROVING PATIENT EDUCATION

Patient education is now viewed as one of the most significant tools for improving patient experience, and perhaps at the foundation of any patient experience strategy.

Higher financial risks that come with value-based reimbursement create incentives for healthcare organizations to train patients to take more accountability. Patients (and/or their families) must fully understand—and retain—information about what’s going to happen to them during the course of care, including when they leave the hospital and are on their own. They must comprehend, to the greatest degree possible, specific tasks and actions that are expected of them, some of which might appear to be rather complicated initially to patients that have zero medical training. A patient’s education may be related to preparing and recovering from a test or surgery or may be part of ongoing management of a chronic condition. Both situations encompass a range of dimensions or pathways of care. It is therefore critical that patients always understand why specific actions matter and how following or not following instructions—at any point in time—could impact their overall experience and health outcomes. Well-informed and prepared patients with a full understanding of what to expect tend to exhibit less anxiety and more willingness to comply with treatment protocols throughout their therapy and beyond.

Patient education that includes clear, easy-to-grasp explanations about treatments are among some of the most important factors influencing patient satisfaction and patient experience (Source: *Gadalean, I., Cheptea, M., and Constantin, I. Evaluation of Patient Satisfaction. Applied Medical Informatics (29:4), 2011*). In addition to driving better outcomes, cost, and resource efficiencies, patient education facilitates shared decision making and enhanced clinician-patient communication, leading to a better experience for everyone. This is important because maintaining a balance between workforce satisfaction and patient satisfaction is necessary to achieve the goals of the Quadruple Aim and are necessary to operate a fiscally sound business.

Ensuring a 5-Star Patient Experience Through Education and Engagement



Through improved health literacy, patients are motivated to adhere to medication and treatment regimens and engage in other self-care tasks necessary for better outcomes and healthier lifestyles.

Source: Frost & Sullivan

Unfortunately, most traditional methods of patient education are insufficient to meet the demands of value-based, patient-centric care. In fact, in most cases, “old school” patient education content is largely unused and ignored, so it has little impact on most patients. This is because the content—most often a pamphlet—is too bland and generic. Patients quickly lose interest. Three-ring binders only exacerbate the problem and produce additional anxiety for patients as the mountain of information looks too difficult to climb. Verbal instructions provided by a doctor or nurse are good, but they’re not enough and can be problematic in many situations. Verbal instructions are highly variable, lacking in consistency and standardization, which can be confusing for patients. Verbal instructions are also highly time consuming for clinical staff who often must repeat the same instructions over and over. Most importantly, studies show that patients have a hard time accurately remembering verbal instructions, and this creates a patient safety risk. So patients need some additional reinforcement by way of print or digital educational content (*Source: Cassano, C. Interactive Technology is Shaping Patient Education and Experience. RN Journal; Journal of Nursing available at <http://rn-journal.com/journal-of-nursing/interactive-technology-patient-education-experience>*).

Another issue to consider is that value-based care and quality improvement initiatives increasingly require providers to verify, ensure and monitor that patient education content is being accessed, viewed and understood as intended. This is almost impossible to do with paper-based content.

To properly train the patient, educational content needs to be engaging and comprehensive. It should include multi-modal solutions capable of meeting the needs of different populations with varying levels of health literacy. Given its new-found importance in transforming healthcare, forward-thinking healthcare organizations are taking a fresh look at how they approach patient education. They are transitioning away from the old-school, “one-size-fits-all,” generic content to adoption of new-school digital solutions featuring flexible, customizable tools like interactive videos and smart surveys to learn about patients and automatically deploy personalized content that is suitable for a wide range of patients, providers, circumstances, and therapeutic areas.

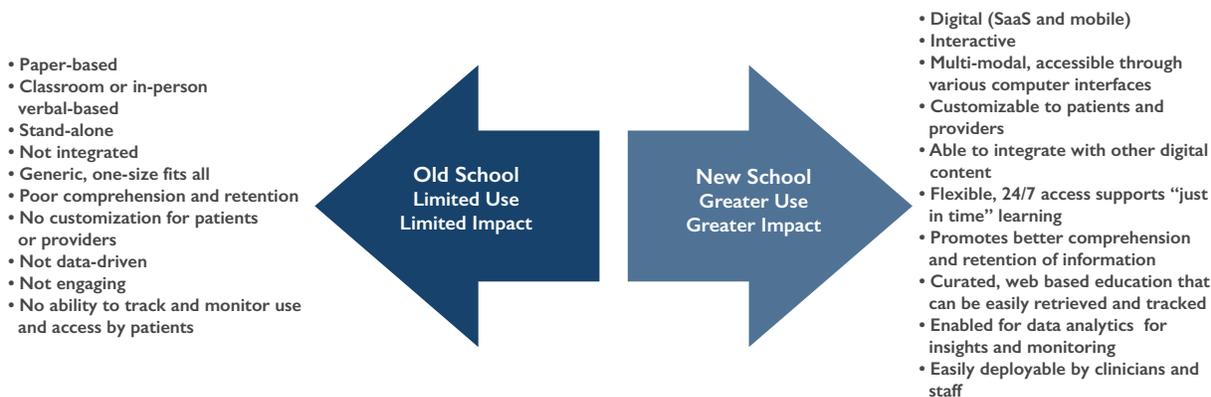
The old ways of educating patients are quickly dying and new, modern approaches are rapidly entering. Healthcare consumerism brings an expectation for a different kind of learning that goes beyond classroom education or handouts. In a digital world outside of the healthcare context, consumers are accustomed to accessing “just-in-time” information available online, at the time they need it, and digested in short bursts. This is the concept of “microlearning,” which is increasingly relevant to health-seeking behaviors that are being transformed by peoples’ broader digital experiences and internet use.

The advent of microlearning is an important behavioral change signaling that healthcare systems need to take ownership of their patient education strategies by incorporating new digital tools reflective of what consumers use.

WHAT TO LOOK FOR IN THE IDEAL PATIENT EDUCATION SYSTEM

As the continuum of care extends from hospital to home, the market is demanding interactive digital patient experience systems that are accessible 24/7 on a variety of computer devices, including mobile. Content should be customizable for patients and organizations, dynamic, and timely with information that addresses both clinical and non-clinical aspects of the patient experience.

Strategic Patient Education Requires a New Approach



In the age of the digitally-enabled healthcare consumer, old school patient education just doesn't play; the ideal patient education provides expanded access to information via digital channels to enable the greatest potential impact for everyone.

Source: Frost & Sullivan

Selecting the ideal solution takes some consideration. The vendor landscape for digital patient education systems is getting more crowded and complex as increasing numbers of technology companies emerge to address growing opportunities. A variety of content and digital approaches are seen. For example, some vendors focus specifically on chronic conditions like oncology or diabetes while others only address surgical procedures. Some vendors may just provide limited-feature mobile apps while others deliver a platform approach. Some enable texting and chat, but not all conditions or surgical procedures need the same level of text and chat. Variety in the marketplace is valuable, but it can confound the purchasing decision process on the buyer side which can result in hesitancy in evaluating and prioritizing the adoption of urgently needed new technology. Or it can become highly politicized with each medical specialty area claiming its tool is the best, preventing a system-wide purchase and seamless patient experience.

The best approach for buyers is to take a more holistic view of patient education in recognition of how it sits at the center of patient experience. Mytonomy is a new vendor of patient engagement technologies that combines multiple components of excellent patient experience in its clinically validated patient education platform. Mytonomy empowers healthcare organizations to deliver a five-star, high-tech, high-touch personalized patient experience through its HIPAA-compliant microlearning patient education delivered through its Patient Experience Cloud®.

Mytonomy is ideally designed to support patient-centric, value-based care. It does so by incorporating the essential features necessary for next-generation, new-school patient education, including:

- » Cloud based, mobile enabled
- » Flexible and customizable
- » Short, easy to digest content with high production values
- » Comprehensive suite of offerings designed to meet multiple needs
- » Hybrid paper/digital content
- » Analytics-enabled for tracking and monitoring patient interactions
- » Single platform approach spanning the care continuum, with enterprise configuration to allow for high degrees of personalization throughout the workflow
- » Easily and rapidly deployable
- » Feedback loop with patient to automatically deploy personalized content

Mytonomy understands what the consumer phenomenon means for healthcare organizations. It has a deep understanding of consumer expectations and knows what a decent solution should look like from the consumer's perspective. Further, Mytonomy also understands how to deliver video education in this modern digital era, which is enabling significant levels of engagement and reaching usage levels seen with other consumer applications outside of healthcare. With Mytonomy's patient education system, healthcare organizations can enable patients and families to better understand their patient instructions, whenever and wherever they want. Mytonomy's solutions also enable healthcare systems to modernize and implement a better patient experience.

IMPROVED PATIENT EDUCATION BENEFITS THE ENTIRE HEALTHCARE SYSTEM

With the adoption of a comprehensive digital patient education system such as that provided by Mytonomy, healthcare organizations can realize significant cost, quality, and operational benefits that create value across the entire healthcare system.

- For patients, better education and engagement results in enhanced knowledge and understanding, leading to better compliance, improved outcomes, and higher levels of satisfaction.
- For clinicians, good patient experience leads to higher job satisfaction. Digital tools that allow clinicians to easily collaborate and engage with patients saves staff time by reducing communication redundancies, thus driving clinician satisfaction.
- For hospitals, patient-centric care and strong patient experience can modify and change the operational benefits, growing top-line revenue and building competitive market advantage when cost and quality of care improvements are realized.
- For payers, educated patients allow for smarter resource utilization, which reduces unnecessary costs.

Nurse testimonials on the benefits of Mytonomy's cath lab patient education videos



"It has been my experience that when patients are better informed with this system, the conversation is better, they understand better, and I have no doubt that they can converse with other healthcare professionals better."



"The patient education video content helps us to communicate with all our patients when we are taking care of more than one patient at a time. It's not a replacement for the nurse—it's more of an assistant for the nurse so that they can make sure that patients receive their information prior to going to the lab or before they go home."

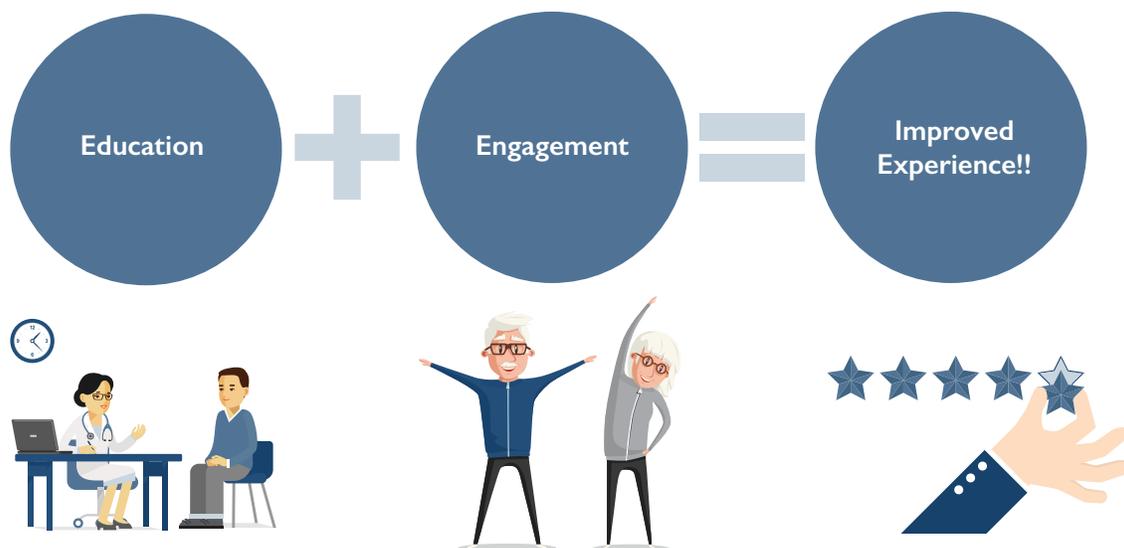


"What I like best about the videos is that they help me zone in on what my patient knows and where I need to fill in. That's important to me. That way I know that I'm leaving them with solid information. The video helped provide the basis for that."



"The videos have complemented my own instructions because I feel that they have enhanced me as a teacher. They help me get the information that I need to get to my patients in an easy, accessible form."

Improved Patient Education and Engagement Leads to Better Experience for Everyone



Positive patient experience drives improvements in behavior, patient outcomes, and cost and operational benefits for payers and providers

Source: Frost & Sullivan

SUMMARY

Competition for customer satisfaction and loyalty is fierce in the digital age. The “consumer mindset” impacts all aspects of modern life and is changing traditional attitudes and actions between patients and providers. In addition, healthcare transformation requires stakeholders to realign to build a more effective and cost-efficient system that pays providers based on quality and outcome measures, and encourages patients and their families to become more engaged and proactive in self-management.

Patient education is now viewed as one of the most significant tools for improving how “consumerized” patients experience healthcare in a value-based world. That’s because educated and engaged patients tend to score better on compliance, satisfaction and outcome measures while utilizing fewer resources overall. This leads to significant financial and operational benefits for healthcare organizations.

Today, tools for patient education must be better aligned with how increasing numbers of people choose to access information—that is, through digital channels. Healthcare organizations need to move quickly and with purpose to bring on new digital tools that drive an improved patient and clinician experience to meet the goals of the Quadruple Aim.

Deployment of a next-generation patient education system like Mytonomy provides a strong, positive return on investment (ROI). Mytonomy’s customized, branded patient education system enables providers to “claim the patient” and proactively manage every aspect of the patient experience and relationship from the initial contact through the entire care continuum. In doing so, hospitals can create a long-lasting brand loyalty that can continuously bolster their institutional reputation and enable ongoing success in an increasingly dynamic market environment.

Silicon Valley
3211 Scott Blvd
Santa Clara, CA 95054
Tel +1 650.475.4500
Fax +1 650.475.1571

San Antonio
7550 West Interstate 10, Suite 400,
San Antonio, Texas 78229-5616
Tel +1 210.348.1000
Fax +1 210.348.1003

London
Floor 3 - Building 5,
Chiswick Business Park
566 Chiswick High Road,
London W4 5YF
Tel +44 (0)20 8996 8500
Fax +44 (0)20 8994 1389

877.GoFrost • myfrost@frost.com
<http://www.frost.com>

NEXT STEPS

-  **Schedule a meeting with our global team** to experience our thought leadership and to integrate your ideas, opportunities and challenges into the discussion.
-  Interested in learning more about the topics covered in this white paper? Call us at 877.GoFrost and reference the paper you're interested in. We'll have an analyst get in touch with you.
-  Visit our **Digital Transformation** web page.
-  Attend one of our **Growth Innovation & Leadership (GIL)** events to unearth hidden growth opportunities.

Frost & Sullivan, the Growth Partnership Company, works in collaboration with clients to leverage visionary innovation that addresses the global challenges and related growth opportunities that will make or break today's market participants. For more than 50 years, we have been developing growth strategies for the Global 1000, emerging businesses, the public sector and the investment community. Is your organization prepared for the next profound wave of industry convergence, disruptive technologies, increasing competitive intensity, Mega Trends, breakthrough best practices, changing customer dynamics and emerging economies?

For information regarding permission, write:

Frost & Sullivan
3211 Scott Blvd
Santa Clara CA, 95054