PATIENT ENGAGEMENT IS A STRATEGY, NOT A TOOL

by Leonard Kish

How healthcare organizations can build true patient relationships that last a lifetime
About the Author

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Prior to VivaPhi, he held the position of vice president of operations at Capitis Healthcare International as well as executive positions with several startups. He started his career as a software requirements analyst at Qwest Communication while earning a triad of advanced degrees from the University of Colorado, including an MBA, a master’s in information systems, and a master’s in biomedical sciences.

Leonard received his bachelor’s in zoology from Miami University in Oxford, Ohio. He’s interested in how systems evolve and how to steer their evolution to fit a variety of unique contexts.

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INTRODUCTION

The healthcare business model is being turned upside down from the traditional fee-for-service mindset to a new value-based payment (accountable care) model. And it may be happening faster than most observers expect. Leavitt Partners projects that fee-for-service care payment will dip to 50% of provider reimbursements by 2022. Value-based payments will become the norm over the next decade.

A major component of payment reform is aligning incentives by spreading some risk to providers and patients—bundled payments and higher deductibles. Providers are taking on a larger share of risks with the different flavors of bundled payments with quality-of-care benchmarks that are part of the Affordable Care Act (ACA) and several new private value-based deals with insurers. Patients’ out-of-pocket expenses have been rising 6% per year the past three years. If anything, the curve is getting steeper with the trend toward higher-deductible health insurance plans.

New risks bring new questions about managing those risks. A common-sense approach is to influence the 70% of healthcare costs that are driven by the choices consumers make. The problem is that we don’t know a whole lot about what influences the consumer decisions that lead to increased health risk, and we’re often restricted in asking them.

We know what brings people into the healthcare system, but we often don’t know what keeps people out of the healthcare system. Largely, we haven’t paid attention to behavior and outcomes because quality benchmarks, outcomes, and communications outside the clinic don’t make money for the clinic. In short, we know what drives sickness but not what drives health. We also don’t know how to be profitable in health over sickness, but now is the time to get on the path toward learning. 2022 is not so far away.

Learning and Teaching to Prevent Problems, DIY Care

The current healthcare system was designed for professionals to fix problems, not to prevent them or to do it yourself (DIY). It was designed around the fixers (the physicians) not the preventers (the patients). Our medical education system is just now recognizing the need to teach future generations about what methods and processes can engage patients in their own care outside of the exam room.
There are few schools that teach how mobile digital tools can be used to produce better patient outcomes through action and behavior on the part of the patient even though we know that engaging patients is effective and that digital tools can help. A recent study of 30,000 patients across 40 Minnesota-based primary care clinics shows that “patients shown to have the lowest patient engagement levels cost from 8 percent to 21 percent more than the patients who were actively engaged in their health.”

If we are moving to a value-based world, we need a very different kind of science to deliver health. We need the science of developing more blockbuster drugs of engagement and the science of understanding what enables engagement. It is largely the science of human motivation and the art of design that seek to understand human needs and motivations. And these are brand-new to healthcare. It’s like starting medical science all over again.

In a value-based care world, social sciences are as important as biomedical science. Zip code is likely better at predicting your outcomes and need for care than your genetic code. Patient engagement may be the “blockbuster drug of the century,” but we’re just at the beginning of understanding how this new drug works—behavioral kinetics versus pharmacokinetics. We’re largely starting from scratch, moving from paying for services to paying for outcomes. To get to those outcomes, we’ll need patients and their caregivers to make better, healthier decisions. For that, we’ll need new strategies and tools designed for a much different problem than fixing illness.

With this in mind, these are the goals of this eBook:

- Highlight parts of the solution to patient engagement as a design methodology for patient-centered design, rather than an out-of-the-box tool. We have much to learn from marketing and design. Patient-centered design has the opportunity to deliver on engagement, outcomes, and patient satisfaction scores.
- Establish the foundations of a framework for applying motivation, including social and other contextual influences to healthcare.
- Ask questions about motivation in healthcare to open thinking and define the need for research into how and where engagement is effective, just as we’ve come to understand which molecules are important in disease pathways.
- Establish that social sciences and design may need to be on equal
footing with biomedical science because the potential outcomes and savings are perhaps on par with each other. Now is a unique time; because of digital tools, so much of social science and social influence is measurable.

- Help execs moving toward value-based care answer the “What do we do/invest in next?” question.
- Highlight need and opportunity for peer to peer (P2P) and social influence as powerful motivators in healthcare as part of patient engagement and value-based design.

Developing new strategies for keeping people from the need of seeking care and caring for themselves and loved ones is what this eBook covers.

**Who is this book for?**

Those looking to enable patient engagement as a foundational part of value-based care, from executives and administrators to physicians, patients, and their advocates.
WHAT IS PATIENT ENGAGEMENT?

The National eHealth Collaborative defined it as:

“Actions individuals must take to receive the most benefit from the health services available to them.”

That puts the onus on the patient, but a patient can’t be engaged if they aren’t offered any information. And they could be engaged in their health even without any access to health services.

Patient engagement has also been described as:

“The process by which patients become invested in their own health.”

It is better when health is treated as an asset that requires investment.

My definition of patient engagement is:

“Attention, followed by an exchange of information that leads to decisions and actions toward better health and/or patient-defined goals.”

Attention is a limited resource that has a cost, and it’s a prerequisite to gain engagement. We must treat it as a limited resource. How long will someone be engaged and attentive without making progress?

Also included is an exchange of information. It’s a two-way street. One person cannot be engaged; there has to be sharing between two parties. Finally, engagement is dependent on a patient being on a journey toward their own goals. We must answer, in as specific terms as possible, what’s in it for me (WIIFM)?

A conversation, of course, is a simple form of engagement involving information and attention, often driving action, yet new tools allow better engagement at scale, providing answers to questions, creating incentives toward actions, and allowing impacts to be measured.

Arriving at Value-Based Care Through Engagement

We’ll use this definition of engagement to help define new solutions to make value-based care work, to drive attention, and to understand what motivates and enables people to take care of themselves. We’ll also use markers for behavior change that can guide us as we move down this path toward a new model of care based on outcomes and consumer-defined value.
A Larger Framework for Behavior Change

The definition above may have a familiar ring. That’s because the idea of engagement and consumer-generated feedback isn’t new. It’s at least 100 years old. Marketers were engaging customers and doing focus groups to find what resonates long before social media platforms existed. Our engagement experts are marketers.

Some might recall the old marketing acronym AIDA:

- Attention
- Interest (or Information)
- Decision (or Desire)
- Action

AIDA is over 100 years old and was first used by Macy’s. To change actions, interest and attention are the starting points. Let’s put these on a 21st-century footing.

I’ve repurposed AIDA into AIDAO, to incorporate the element of learning and incentives in building a learning health system:

1. Attention
2. Information and Incentives
3. Decisions
4. Actions
5. Optimization

**Attention.** For a decision and an action to be made in the right direction, they must be habit or they will require attention and resources. Attention is part context and triggers, part motivation, and part influencers like social and communications strategies. We have a great deal to learn from marketing about how to bring attention to healthy behavior. Attention means recognizing that a decision must be made and then provide the information and other resources required to drive the decision. Attention is the focus of this eBook.

**Information and Incentives.** In a new model of risks and incentives, new players will need data to manage risks, and so will patients. The risks and rewards must be made clear. Information and incentives include the reasoning behind a decision and the information needed...
to make a decision (risks, rewards, likelihoods). While driving decisions in marketing can often include the decision not to include different types of information, in an ideal value-based healthcare world, all relevant information based on a patient’s goals and evidence-based research will be provided.

**Decisions.** Once attention has been achieved, choice architectures and behavioral economics are needed to understand how to drive decisions based on the knowledge of patient/consumer goals.

**Actions.** This is reducing friction that exists between the decision phase and the moment the decision occurs to take effective action. Just because we know what to do doesn’t mean we’ll do it, we need to facilitate actions that follow the right decisions. A common example for facilitating actions in choice architectures would be placing apples in plain view at the lunch counter and moving fried foods to less visible locations.

**Optimize.** Since these are new concepts for healthcare, we need consistent feedback loops to understand what’s working and to further minimize risk and further refine an emerging science of engagement, constantly testing assumptions. Because few maps exist, and little understanding of what kinds of engagement work in different contexts, we need to start with strategies for becoming open to ideas that can take us on the road to the Learning Health System.

These five steps will serve as the guideposts in moving toward a value-based care world.

It’s natural to think that health IT is all about data and tools, but data and tools alone are not effective without an understanding of the psychology of decision-making. Data and tools are supporting pieces to the value-based care puzzle of influencing the most effective health decisions. Although this eBook is part of a larger framework for all five steps above, I’ll focus our attention on attention. Within attention, we’ll discuss many of the influencers of attention, including:

- **Motivation**
- **Context**
- **Goals and Communication**
- **Social**
THE QUEST FOR ATTENTION

If costs are going to go down while overall health goes up, we’ll need to fight the attention war for healthy choices with the same weapons advertisers have used for years to promote unhealthy choices. Unhealthy choices have had business models, resources, and massive amounts of data on how to gain attention. Unhealthy has marketing departments. They’ve learned a lot about our neural wiring to distract us to buy products and make decisions that negatively impact our health, e.g., Pizza Pizza! They’re Grrreat! Chef don’t judge! Got Milk?

They’re funny and they’re catchy, but over the long term they’ve taken their toll on our health.

We live in the age of distraction with organizations vying for our attention in new ways every day. A million tweets, updates, emails, videos, notifications, advertisements, and more constantly battle for our attention. This information deluge led author Cal Newport to proclaim, “Focus is the new IQ.”

Google, Facebook, Twitter, Apple: The most successful companies of this generation are those that have been the most effective at drawing our attention, by directing traffic, looking at pages constantly or checking a device. These four alone have created billions, even more than a trillion dollars of value over the last 10 years. To be successful in delivering on a learning health system and delivering on the triple aim, we’ll need to turn the weapons in the attention war to health’s favor.

In healthcare attention, unhealthy has been winning. In a multitude of ways ways it’s been easy for “unhealthy” to gain our attention. Our brains may be wired to unhealthy behavior, ill-adapted to an era of plentiful, cheap calories and relatively low caloric needs. The “I want that” part of the brain is loud and continuous in our world, better adapted to an era of difficult-to-obtain calories. Given how our brains were adapted for a different time and different caloric access and requirements, we may actually be doing better than suspected.

There are glimmers that the tide is turning. There are wellness programs that are highly sought by employees. Signs indicate childhood obesity is going down by 47% among toddlers. Gyms are crowded. Races and runs get thousands of entrants across a wide range of ages. Tracking devices are wildly popular. We may even be eating healthier as a society.
Yet it’s true that most of us don’t pay attention to health until it’s too late, and that needs to change before it breaks us, using everything we know and much we have yet to learn. With digital tools, attention and activity are more measurable than ever. That gives us the capacity to really learn what works to steer this massive ship of attention toward better health, but the first step is to get our health system digitized and connected.
Section 4

FROM TECHNOLOGY TO MOTIVATION

As a component of Meaningful Use Stage 2, one might think that patient engagement is about health IT or technology. After all, Meaningful Use is shorthand for “Meaningful Use of electronic health records,” but we know that the end goal is about something much bigger. As with any kind of user-focused design, it’s important to start with understanding people’s goals—then fitting the technology to how people work and accomplish their goals. The Office of the National Coordinator for Health Information Technology (ONC) understands this.

In 2013, I was asked by Lygeia Ricciardi, until just recently the Director of Consumer eHealth at the ONC and responsible for enabling consumer use of healthcare technology, “What more could ONC be doing to support patient engagement?”

My response was something like this:

“In the context of Meaningful Use, it seems like patient engagement is all about sharing data, but engagement isn’t just about Blue Button+ and sharing data (although they are necessary foundations for innovation and enabling patient action). The key to engagement in early stages is to get people’s attention and to let them see what’s possible by using the tools available to improve their health. It’s a process and a strategy, not a data set or any one tool.”

I was pleased to hear the ONC recognize the need for attention, motivation, and action. Ricciardi detailed the ONC’s strategy for engaging consumers, which consists of three A’s: Access, Action and Attitudes:

1. **Access**: Giving consumers access to info in a format they can use

2. **Action**: Supporting growth of an ecosystem of tools and apps that allow consumers to take action with their health information

3. **Attitudes**: Helping to evolve attitudes about consumer engagement and health

The focus on information, action, and attitudes is similar to AIDA, mentioned earlier. While the headlines are around access to information through tools like Blue Button and certified EHRs, the impact on public health, the national financial picture, and the triple aim will come with actions and attitudes.
Designing for Decisions and Behavior Change in Healthcare

One of the challenges with action is making people’s health data usable. Like any tool, it doesn’t do much good if no one knows how to use it. In the words of Dave Chase, CEO of Avado (now part of WebMD), people need to have motivation to use their data, and it has to be “easy, consumable, shareable, and relevant” before it can be valuable in improving outcomes and delivering on the ease— consumption and relevancy comes from good experience design. Wikipedia’s definition of experience design:

“Experience design (XD) is the practice of designing products, processes, services, events, and environments with a focus placed on the quality of the user experience and culturally relevant solutions.”

Experience exists at the intersection between people, their data, and their ability and desire to act. Access to information may be a first step, and a large part of Meaningful Use, but it’s how relevant and usable it is that will drive real change.

According to a survey done by Eliza Corporation around Blue Button, the suggestion arose that “[t]echnology developers may consider creating and promoting tools that let consumers easily access and use the information in their PHI for the reasons they most value, and leverage the brand resonance and equity of the Blue Button to lend credibility to their consumer-facing products.”

In other words, consumers need to find what’s relevant to them and what they are motivated to understand and act upon while ONC and Blue Button provide trust and access. Those with a recent cardiac event, for example, will be more likely to engage than others to prevent a reoccurrence, and developers should focus on tools that will enable that. Getting there comes by asking the right questions, a key part of experience design, while understanding motivations and relevancy is key to driving behavior change and comes through experience design.

The ONC has also been working with BJ Fogg’s lab. Fogg is well known for the Fogg Behavior model, which says that behavior change comes when triggers (attention) remind people to do things they a) can do easily and b) are motivated to do. Changing the health system for better communication requires the understanding of the available tools, abilities and motivations of all stakeholders in the
healthcare system, including physicians and patients. Each type of stakeholder has inherent abilities and motivations. We tend to treat the tools (which provide abilities) and motivations distinctly, but a combined approach, as Fogg shows, will likely be more successful.

HHS has also enlisted behavioral scientists like Dr. Audie Atienza to understand what motivates people toward better health. Several behavioral scientists had a hand in the National eHealth Collaborative’s (NeHC) Patient Engagement Framework, now part of HIMSS, which is heavily influenced by the idea of creating a contextual environment in which patients are motivated and enabled to act and are aligned with the stages of Meaningful Use.

While most organizations are focused, for better or for worse, on Meaningful Use criteria, what’s been lost is the end goal: behavior change enabled by better overall design. Unfortunately, when we focus on criteria instead of overall goals, good design often gets thrown out the window.

Critics may say that Meaningful Use and even the Patient Engagement Framework, which is tied to the Meaningful Use criteria, may be too prescriptive, but these are powerful tools to help organizations who may not understand how to evolve effectively toward healthier choices. Rewards often require strict criteria to be effective, and Meaningful Use has provided incentive for digitization, a required first step to assessing risk and reward at scale.

There’s a long way to go before we have a health IT infrastructure that truly enables engagement and better decisions, but to their credit, the ONC and the Consumer eHealth office understand there’s a need to get into that area between technology and human motivation to make technology a pathway to better outcomes.

**Retailization**

A common refrain in healthcare is that most people won’t become engaged until it’s too late. Still there are those who do engage with significant impact. A large factor in driving engagement is making patients’ choices relevant. To do this, providers must understand each person’s goals. In other words, they must learn to view and treat patients as consumers, which is not a small shift and requires the work of design specialists.
According to Dave Willis of the Advisory Board, speaking on the questions all health executives are now asking:

“Now that we’re seeing the ‘retailization’ of the insurance market, people have more choice in where they get healthcare, and more accountability for the financial implications of those choices. For the first time, the word customer actually means something.”

For those who are on the road toward Meaningful Use and/or payment reform, figuring out where to start can be daunting.

First, asking and then answering questions about who you should attempt to engage and where to start is part of developing an effective engagement strategy. Not all people will respond the same way to engagement efforts. It’s a set of analysis and choices and the ability to have multiple tools for different engagement jobs. Developing a successful engagement program requires knowing who you want to reach and when.

According to BJ Fogg, the first question is often, “What behavior [or choice] do we want people to do [or make]?”

Take medications on time? Spend less? Get a regular checkup? Eat less saturated fat? Be specific on what things you want to encourage. Start by defining these choices and actions, or the end goal, then work backward to motivations, context, and triggers.

Selecting the when and where of applying triggers is a matter of finding behaviors people are already trying to change. The ability to get attention of patients/individuals depends largely on what they are experiencing, how receptive they are, and what influences them.

Also, any behavior is enabled by making it simple and easy to perform, and it helps to start with a simple behavior.

Leading institutions are putting consumer engagement and experience design in the marketing department, where the experts in consumer-focused initiatives are located. Cleveland Clinic’s digital marketing strategy includes integrated mobile healthcare apps. Too many organizations think patient engagement belongs in quality control that is largely focused on activities internal to an organization and on measurement. Engagement requires what marketers know very well: motivation, context, and messaging.
Motivation, Context, and Messaging

In the Forbes article “7 Habits of Highly Patient-Centric Providers,” Dave Chase wrote:

“...I ask the audience which hospital they'd choose if given the choice between one where patients have an 88 percent reduced risk of dying of a cardiac-related event [compared to another].”

In this case, of course, the choice is obvious, and it’s an easy situation to predict success. People engage when they are fearful and the stakes are high: life or death. The very real chance of dying from a heart attack tends to get people’s attention and their willingness to engage. As Jamie Heywood, CEO of PatientsLikeMe (the most successful set of online patient communities to date), said at the 2013 Healthcare Experience Design Conference, “People mostly don't want to die.” Meeting patients/consumers where they already are trying to do something—or not to do something in this case—is a key to success for patient engagement.

With engagement, it seems like a new and unfamiliar problem. People often ask me, “How do we start? How do we know what will work?”

Starting with engagement where it’s been shown to be effective, like cardiac care, is a low-risk proposition, and it’s a great place to start, whether you are working toward population health or not. Who wouldn’t want to advertise an 88 percent risk reduction to their market? The benefits are potentially so strong that engagement strategies can light the pathway to aligning a fee-for-service world with population health and value-based care.

But be wary, expectations of many organizations seem to focus on fully developed products sold as a “patient-engagement solution.” Engagement is about more than a tool; it’s a strategy like marketing and requires design. Engagement without a designer is like medicine without a doctor. It can be applied, but not all that well in most cases.

While opening up and sharing data like Blue Button or OpenNotes is a good start, ultimately who engages and the value they see in their data depends as much on their internal motivation as anything external, and each person has different motivations and contexts that drive the desire to engage the healthcare system.

To be an effective patient-centered system, we’ll need to address each motivation. You can start with the low-hanging fruit where people are ready to engage, such as cardiac care, but it helps to put
all of your care centers on a motivation grid, much like defining a target market, and explore what kinds of motivations each patient population might have. It takes some customer research to identify these different motivational niches.

Once motivations and niches have been identified, success becomes a matter of communicating the right message in the right channel to the right patients.

Eventually, to access deeper layers of patient engagement with different patient populations, one needs to have deep levels of understanding motivation to communicate the right messages. Jamie Heywood brought up Maslow’s Hierarchy of Needs in the same speech quoted above. Maslow’s hierarchy model is perhaps a little dated, but it’s a great intro to think about the different kinds of mental contexts that exist for patients and consumers, and where engagement strategies might be most effective. Fogg’s behavior model is another excellent resource.

**Maslow’s Hierarchy of Needs**

<table>
<thead>
<tr>
<th>Level</th>
<th>Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physiological</strong></td>
<td>breathing · food · water · sex · sleep · homeostasis · excretion</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>security of body · of employment · of resources of morality · of the family · of health · of property</td>
</tr>
<tr>
<td><strong>Love/Belonging</strong></td>
<td>friendship · family · sexual intimacy</td>
</tr>
<tr>
<td><strong>Esteem</strong></td>
<td>self-esteem · confidence · achievement respect of others · respect by others</td>
</tr>
<tr>
<td><strong>Self-actualization</strong></td>
<td>morality · creativity · spontaneity · problem solving lack of prejudice acceptance of facts</td>
</tr>
</tbody>
</table>
Maslow as an Engagement Spectrum

Maslow’s hierarchy is well known in advertising and may be useful to consider when we think about who is likely to benefit from patient engagement. Those that don’t have needs fulfilled at the bottom of the pyramid (the physical level)—those with a very real fear of dying and those in great pain—may be the ones most likely to become engaged patients.

You might think people go on PatientsLikeMe because of social interaction (level 3), but the data-centric success of PatientsLikeMe suggests many go there because they don’t want to die or they no longer want to be in pain. They’re looking for solutions to specific problems. They want to see measurable results. And PatientsLikeMe knows this because their success might be attributed to the fact that they spent a large amount of their early development work with top user-experience designers who are experts at finding out what users actually want and testing assumptions.

“At the core … is the idea that people should design for themselves their own houses, streets and communities. This idea … comes simply from the observation that most of the wonderful places of the world were not made by architects but by the people.”

—Christopher Alexander, et al., A Pattern Language

Designers are those who learn what people want and discover the knowledge to solutions in the real world.

On the other end of the spectrum, near the top of the pyramid, is self-actualization, where we could place the early-adopter quantified selfers—a small, but growing and highly engaged group—that see engaging with their health as an integral part of self-actualization, including elite athletes who quantify to get a competitive edge.

In the middle of the pyramid, most people may not pay much attention to healthcare. As healthcare data strategist Dave Clifford says,

“I don’t think that most people perceive the healthcare system as anything other than ‘there if we need it to be.’ As a result, from a health IT perspective, most of the people in the middle of the spectrum just don’t exist. We need to consider what a learning healthcare system can tell us when our classrooms are full of A students and D students and the rest of the class is ‘skipping school.’”
How do we get the folks skipping school to attend healthcare class? There’s a broad spectrum where making patient engagement “fun, playful, sexy, scary” (to use Lygeia Ricciardi’s terms) can achieve quantifiable results that could make real public health impacts. It will take real-time effort and resources to find the right mix for those in the middle of the spectrum.

The key for those in the middle might be to make health tracking easy and transparent. Our systems know more about us than we already want to admit. Xboxes in our living rooms can measure heart rate and facial expressions, phones know where we go and what we buy with mobile payment systems, and sensors are nearly ubiquitous as we begin to grow the Internet of Things (IoT). We’ll soon have more insight into our own behavior whether we want it or not.

Maslow may also provide some insights into meeting people where they are in the middle, around level 3 and social. Weight loss could be one example. We might not lose weight to be healthier, but we’ll do it when we want to be more attractive and we feel we have a chance at success.

This is just a brief overview of how these principles might be applied to healthcare, but there’s lots of great research on motivation available. I highly recommend Michael Wu’s article on how motivation relates to gamification and consumer engagement. I’d also add Nobel Prize winner and psychologist Daniel Kahneman’s book “Thinking, Fast and Slow”; “Nudge” by Thaler and Sustein; and “Connected” by Fowler and Christakis. Behavioral models have been used for years outside of healthcare.

Context is a core component of each of these behavior models: social contexts, mental contexts, narrative contexts, geographical contexts, economic contexts, and many more. Context is defined as the circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood and assessed.

No decision or action exists outside of context, so it’s a critically important piece to the engagement puzzle.

Eventually, to access deeper layers of patient engagement with different patient populations, one needs to have deep levels of understanding motivation to communicate the right messages.
THE RISE OF CONTEXTUAL MEDICINE

If content is king, then context is god. —Gary Vaynerchuk

Have you ever followed a conference on Twitter? This activity allows the viewer to largely define the context of the information received. You might “listen in” to a conference presentation from your office, but various information and narratives in the form of tweets are mixed into the experience. This hints at the future of contextual medicine.

Context is defined as “the circumstances and facts that surround a situation.” To understand the potential, let’s take a look at how observers are describing similar shifts.

Shifting Contexts in the Digital World

John Hagel, co-chairman of Deloitte Center for the Edge, describes the shift from content, which includes articles, video, and other consumed digital information, to the “context trajectory” that goes from experience to stories to narratives. Hagel wrote about finding a persistent context:

“In our digital world, content providers progressively chunk up their offerings to provide more choice and easier access. Music is now available by the track rather than packaged onto a CD. Sure, we will continue to watch movies and TV programs on our digital devices, but increasingly we consume video in bite-sized chunks—the preferred length of a YouTube video is two to five minutes. As for text, it has been progressively deconstructed from books to articles to blog postings to 140-character tweets. As this occurs, value moves from content to context.”

A healthcare engagement trajectory might follow a similar path. In a context-driven world, the viewer defines the experience and his or her level of engagement. The content is foundational, but the viewer gets to decide how, when, and where it is delivered. The viewer defines how the experience is architected to fit his or her own story and level of engagement. Contextual medicine might allow patients and physicians to do the same. After all, they understand needs and contexts better than anyone.
System Architectures

A shift in context has been happening more or less continuously for centuries as the distribution methods for musical content continue to shift, having a profound effect on what works and what doesn’t in different musical contexts.

In “How Music Works”, former Talking Heads singer David Byrne “explores how profoundly music is shaped by its time and place, and he explains how the advent of recording technology in the 20th century forever changed our relationship to playing, performing, and listening to music. … Byrne sees music as part of a larger, almost Darwinian pattern of adaptations and responses to its cultural and physical context,” according to the publishers.

Medicine is also undergoing profound changes as cultural, technological, and physical contexts shifts. Medicine has largely ignored contexts, because it was thought medicine happened inside the clinic, but today people can monitor their ECGs with an iPhone and AliveCor. The Xbox One Kinect can monitor heart rate.

What and where we can measure is changing very fast. As technological, economical, cultural, and geographical contexts shift, so too do the decisions that are made. If medicine is about making decisions, it can change profoundly with context.

Byrne says:

“How music works, or doesn’t work, is determined not just by what it is in isolation … but in large part by what surrounds it … How it’s performed, how it’s sold and distributed, how it’s recorded, who performs it, whom you hear it with … these are the things that determine not only if a piece of music works … but what it is.”

In his TED talk, Byrne summarizes the concepts in the book. He highlights concepts that could change the architectures of healthcare. You could replace “music” in the above passage with “a medicine” and get an idea of just how different medicine might be in the years to come.

“How medicine works, or doesn’t work, is determined not just by what it is in isolation … but in large part by what surrounds it … How it’s performed, how it’s sold and distributed, how it’s recorded, who
performs it, whom you engage it with ... these are the things that
determine not only if a medicine works ... but what it is.”

When medicine is performed in new locations by new people and in
new contexts, it will change the very essence of medicine as a science.
As one example, Dr. Rafael Grossmann, a pioneer in the use of mobile
technologies in trauma surgery, describes the use of next-generation
mobile in a physician’s workflow. (Workflow is often used to describe
the context in which information is used in medicine.)

How might the architecture of medicine change how medicine is
practiced, and how might things change when medics or family
members wear new technologies such as Google Glass?

Limited Context of Medicine Changing

What we think of as healthcare today exists in just a few limited
and historical contexts, and we have limited access to the power
of information outside of the limited context offered in healthcare.
For example:

- Physicians interview patients to find out what’s wrong, but patients
  are demonstrably unreliable in describing what’s wrong in 10
  minutes or less. They can also often forget what the doctor has told
  them by the time they get to the parking lot.

- We do routine screening tests to see markers that may or may not
  be good predictors of a disease state, like PSA and mammograms,
  often causing additional unwarranted harm to patients.

- We take blood pressure or a measurement in a clinic and
  extrapolate these same measures to other times and to other places.
  Results vary over time, yet too often we take a single measure to be
  “the” measure when it’s a moving target.

- We still train medical students in large lecture halls devoid of
  much human interaction, and we do little training on prevention,
  motivation, and digital tools.

- We prescribe medication for large populations that will be effective
  for only a small portion of the population.

The list could be almost endless, and that’s at least part of the
problem: We haven’t much considered or thought about expanding
the contexts in which medicine is practiced. How medicine actually
works and how medicine is influenced over temporal, physical, and
social contexts is still largely a mystery. We’re unsure of how stable many measures are over time and place.

Those driving toward value-based care and population health will do well to begin studying how contextual medicine will work. According to a recent article on next-generation medicine by Jonathan Cohn in *The Atlantic*:

“One such institution is the Group Health Cooperative of Puget Sound, a nonprofit, multi-specialty group practice. Matt Handley, the medical director for quality and informatics, says that about two-thirds of Group Health’s patients now use some form of electronic communication, and that these methods account for about half of all ‘touches’ between patients and the group’s doctors or nurses. ‘They set up their own appointments. … They don’t need to call somebody and ask when I’m free,’ Handley says. ‘They send messages to doctors; look up lab tests and radiology results; and order refills. … the fascinating thing is that people of all ages are using it. … I have people in their 90s who secure-message me.’”

**Rearchitecting Medicine**

How will new healthcare experiences and contexts be architected? One way, through digitization and incentives, is a return to house calls, but this time they’ll be virtual, a major shift in context for both patients and physicians. Dr. Lawrence Casalino, an expert in outcomes and effectiveness research at Cornell University, estimates that more than 50% of visits to primary care physicians are unnecessary.

In *The Creative Destruction of Medicine*, Eric Topol states:

“The need for in-person office visits will be substantially reduced over time, along with those to emergency rooms. Those physicians who can emerge as the medical digerati will have a decided advantage—their accurate data on outcomes, quality, and cost will be posted on the web and automatically updated on a frequent basis. House calls of yesteryear will be making an incredible comeback, but done through the web.”

Topol goes through several reasons for this change toward home-based care, including:

- payment reform
- a renewed focus on patient engagement as a path to Meaningful Use
and quality measures, both of which are (slowly) being mediated by ubiquitous connectivity

- the difficulty in moving patient data from one physician to another

Each are having and will continue to have a role in rearchitecting the system around new patient contexts and better experiences. Still, a missing piece will be in actually paying for services provided remotely. In August 2014, a veterans bill and a Telehealth Enhancement Act went before Congress, each of which could advance telemedicine reimbursement, and it’s past time to enable better digital communication to treat patients. The technology is ready and available.

The End of the Blockbuster Pharma Era

Meanwhile, as the blockbuster business model in pharma dies a slow death, pharma is beginning to find the power of context.

On the day after Novartis CEO Joe Jiminez declared that “[t]he age of the massive blockbuster drug is over,” Eric Topol mentioned that “[p]atient engagement is the blockbuster drug of the century” in his HIMSS13 keynote address. The shift toward behavior is happening.

How is a drug related to context? In two ways similar to Byrne’s music description: the physical and the socio-economic contexts. The physical context of the patient’s body includes genomics, proteomics, and interactions with other drugs. The socio-economic context of the patient includes community, financial stability, medication adherence, and their cultural beliefs, among others.

Effective new drugs can’t be developed outside of a well-defined patient context. The old model of a blockbuster drug is founded upon a business model that assumes a single drug will work in a large population, no matter the physical or social context. We’re discovering that’s rarely the case.

And, under the ACA, drugs new to the market that don’t perform significantly better than existing options won’t be eligible for reimbursement, according the CNN/Money article. The old model simply won’t work.

Context of patients along many facets is as important as the genetic contexts in which drugs do or don’t work.
Tamoxifen is a great example. As described by O’Reilly, Steele, Loukides, and Hill:

“For a long time, we thought that Tamoxifen was roughly 80% effective for breast cancer patients. But now we know much more: We know that it’s 100% effective in 70 to 80% of the patients, and ineffective in the rest. That’s not word games, because we can now use genetic markers to tell whether it’s likely to be effective or ineffective for any given patient, and we can tell in advance whether to treat with Tamoxifen or to try something else.”

But it’s not just the genetic/biomolecular contexts that matter. We are shifting the time and place of where healthcare will be practiced. How might certain tests, treatments, and engagement strategies work in different contexts?

We know that some people like apps for communication, while others like talking on the phone. Some drugs work for some people. We know that blood pressure changes with the “white coat effect.” If a patient cannot afford a drug, what is the likelihood that they’ll take it, and will it be effective? Drugs don’t work in patients who don’t take them, and over 20% of patient didn’t fill a prescription due to cost last year.

Understanding these kinds of questions could be as important as a genetic marker for a cancer drug. Context of patients along many facets is as important as the genetic contexts in which drugs do or don’t work.

Patient engagement must include the everyday activities and decisions at home, where the patient stories take place. The opportunity is for institutions in a quality-driven healthcare world to help patients begin to define their own narratives, in new contexts, for better health.

Digital will certainly have a role, but not the only role in defining new narratives and new narrative contexts, in the ways people see themselves as part of a journey.

According to John Hagel:

“Digital technology provides all of us the ability to define and communicate narratives in rich and textured ways. Video and audio tools and platforms supplement conventional text-based forms of communication, and put them in the hands of everyone.”

When we use these tools to construct patient narratives, we can begin to enable context at scale.
Dave Chase eloquently used the following analogies to describe changing patient behavior:

“With chronic disease, a service-based, cognitive approach is necessary to effect behavioral change. In a manufacturing setting, with enough practice a machine will do what it is intended to do and doesn’t have a mind of its own. However, as anyone who has been in a service-based business knows, human interaction and a partnership-oriented approach leads to the best outcomes.

“Think about throwing a rock at a target. Like a manufacturing scenario, with enough practice a well-trained professional can hone their craft and hit the target most of the time. Now imagine rather than throwing a rock, you are throwing a bird at a target. Perhaps you can impact 10–20% of whether that bird hits the target. However, the other 80–90% is going to be driven by understanding the motivations of the bird. Perhaps putting food or the bird’s babies at the target would be necessary to drive the bird’s behavior.”

People are complicated, and Chase is underscoring two key concepts that must be a part of a successful patient engagement and outcomes strategy, requiring bottom-up traction more than top-down control:

- Understanding is needed to affect people’s motivations, habits, and attention drivers, including social drivers.
- Take an iterative, learning-based, Bayesian approach. It will take time to find the right mix. Think “Lean Startup,” finding ways to accelerate learning.

Minds are dynamic, complex systems that certainly aren’t always predictable. An iterative approach is needed because we just don’t know what works best for each of us. It’s an emerging science that will take a lot of time to understand, but there are some examples of successful behavior change we can examine.

**Motivation and New Habits**

**The $150 Toothbrush as Successful Engagement**

Philips sells a $150 toothbrush called Sonicare. In retrospect, it makes sense. We all want clean teeth nowadays, but making this behavioral impact wasn’t easy. Even though tooth brushing or chew sticks are
thought to have been around for over 30,000 years, 100 years ago most people didn’t brush. Now it’s an ingrained habit for most Americans, taught at an early age, and people crave finding ways to do it better. We tend to take advice from experts we trust, like our family dentist.

Tooth brushing is a good example of how patient and consumer engagement can work when the value proposition is clear and you meet people where they are with their own internal motivations.

Pepsodent, in 1917, started ads that talked about the removal of a “clinging film.” Within a few decades, brushing had become a habit, and toothpaste was now in the house of just about every American.

Advertisers knew you had to start with people’s attention in the AIDA (Attention-Interest-Desire-Action) model and then provide relevant information to get them to a decision. What advertisers know is what psychologists have grown to call behavioral models, which include Maslow’s hierarchy, Fogg’s Behavior Model, and Kahneman’s vast research. People want clean teeth for just about every level of Maslow’s hierarchy, and Pepsodent played to that.

**Forming New Habits**

They say that if you want to overcome resistance in starting a new habit, first start with something small, like getting a piece of floss out, flossing just one tooth, or putting on your workout socks to start the habit of working out. It’s related to something called the Zeigarnick effect. Once we start a series of steps, we seek to finish them all. By starting small and engaging these effects, we can overcome our innate resistance to doing something new.

Patient engagement needs a clearly articulated value proposition for many different motivations and narratives, just like toothpaste. Sonicare shows that people will engage in preventative care on a daily basis, and even pay for it, as long as the case can be made for how it might improve their lives.

Patient engagement is conceivably not much different. Armed with enough data and marketing dollars, there could be an effective campaign to educate doctors and patients, but we’ll need both the dollars and the data.

It will help if a trusted doctor recommends it, but if enough people ask for engagement, and physicians are paid for it, it will happen.
Philips had creative agencies involved in both the development of Sonicare and the data-driven marketing strategy targeted to the dentists who supported the product. People are driven by personal connection, trust, and fear of pain.

If patient engagement continues to be demonstrated as many times more effective at influencing outcomes than even the best drugs—if it really is a blockbuster drug for many conditions—then at some point we’ll need to generate public awareness and advertise results to physicians and consumers. Like a drug or toothpaste, it must become ingrained in our culture.

A JAMA article showed 80% of misdiagnoses were related to inadequate patient-physician communication. The potential savings and public health benefits of engagement are too high not to promote the way the pharma industry promotes drugs.

**Finding Patient Engagement’s Missing Business Model**

What is the business model for population health and patient engagement, and how do we approach it?

The incentive to sell engagement ultimately has to be as strong as the incentive to sell a $150 toothbrush—or stronger. It could be selling devices to be used at home.

According to Advisory Board’s Dave Willis, every healthcare executive is trying to figure out a business model for population health:

“What do we know so far? Shared savings is simply not a great business model. It may be a good way to get your feet wet in population health without the full downside risk of capitation or owning the premium, but the upsides—for those who are good enough to generate the savings—are generally not enough to make up for the losses in volume. To make the economics work, health systems are going to need much greater numbers of lives under risk, much more aggressive risk contracts, or both.

At the same time, health systems will have to move aggressively to reduce their fixed costs. Few things will strain the financial health of an organization more than expensive, underutilized capacity.”

Healthcare economist J.D. Kleinke, mentioning patient engagement as a blockbuster drug, said, “if only we could patent it.” Of course, sadly, he’s right. Our systems aren’t set up for models that derive value from
rewarding good behavior and disincentivizing bad behavior, unless that good behavior comes with side benefits, like clean teeth.

Sonicare might not cost $150 if they didn’t have it patent-protected. Philips’ marketing is selling outcomes (cleaner teeth), but their financial path is through a product consumers will buy. Sonicare bet development dollars that they could deliver cleaner teeth for $150. What if we could bet that a person would lose weight, or lower their cholesterol, or keep glucose under check? How might we share savings with individuals or with communities rather than just health systems?

Payment reform is a start, but how far can shared savings take the business model of engagement? Healthcare is eating up our GDP like a World War, but we’re having a hard time identifying the enemy. The one the thing all Americans can get behind is fighting the common enemy.

Yuck Mouth was introduced as a public service announcement to create a villain out of tooth decay. Will similar campaigns get the ball rolling before we find the healthcare products that will grab patients’ attention and encourage healthy behavior change? How do we create a villain when the behavior is something we do? How do we make heroes out of good behavior?

New reward mechanisms look promising. Companies like incentaHEALTH have made great progress in providing rewards to employees for losing weight, but there will be several more opportunities in the coming years.

In the same way that Kickstarter allows people to donate to a product they want to see, new approaches to rewards and asset development may usher in a new era. When everyone has a personal health-tracking system in their pocket, attached to their identity, many new options for incentivizing behavior become available.

**Iterative Approach**

The takeaway lesson for those implementing patient engagement is that it will be a journey to uncover what works for the patient populations you want to address. If results with engagement continue to show promise, more open communication and engagement with patients will become part of the standard of care. It’s up to each participant in the system to discover, to learn what works, and then to teach others.
Each patient context will have a unique path to success. It’s an adaptive process that, much like the best software design, remains flexible and iterative. It will require an agile approach and agile frameworks to find what works effectively in each situation.

Now, let’s look at some of the best influences we have, our social networks, and how they can be applied to improving outcomes. The day for peer-to-peer healthcare has arrived.
ALIGNMENT THROUGH SOCIAL STRATEGY

“Humans, it appears, are successful not because of an elevated general intelligence that addresses all challenges, but because we are born to be specialists in social skills. By cooperating through the communication and the reading of intention, groups accomplish far more than the effort by any one solitary person.”

—E.O. Wilson, The Social Conquest of Earth

We have been social creatures since the dawn of man, and medicine has been a social science for as long as most of us can remember. But medicine has moved away from those social aspects in recent decades.

“Take two aspirin and call me in the morning” used to be the common refrain. First, do nothing, but stay in communication. There was a time only a few decades ago when engagement was the one-on-one relationship between a patient and physician and you could call your doctor on the phone, but that seems like a distant time now.

It appears that social media has created an environment where people are prepared to join together to tackle new problems. Current research shows we are just as committed to cooperating and communicating as a group to solve big problems in healthcare.

A PatientsLikeMe survey, published by the Institute of Medicine, showed that people with chronic conditions are willing to share their health information if it could help others:

- 94% are willing to share information to help doctors improve care
- 94% would be willing to help other patients like them
- 92% would be willing to help researchers learn more about their disease.

Those are outstanding figures. It’s hard to get 90% of people to agree that the sky is blue.

To get information to flow to allow for self-care, we need social tools. What informs consumerism in healthcare, Bill Frist wrote in Health Affairs, is ensuring consumers access to information, and social media is becoming one of the main ways people get information.

Let’s take a look at how providers can harness the power of social media, after first taking a look at how we’ve become disengaged.
**Industrialized Healthcare Has Led to Disengagement**

Although dated, taking two aspirin and calling in the morning is engagement. We have a desired action (take a pill) and a follow-up (call me), and the baseline is essentially to do nothing (first, do no harm and less care is more). But this kind of interaction is from a bygone era.

Somewhere in the industrialization of healthcare, we’ve lost this one-on-one relationship and communication (truly a kind of Bayesian approach to care). Healthcare is a system now, a network. Workflows, business models, and reimbursements (for the most part) don’t support this kind of model. Physicians aren’t going to take the time to make personal phone calls on a regular basis (without being reimbursed), but we need to find a way to encourage ongoing communication. It works.

**Consistent Communication, Better Outcomes**

When ongoing communication is made available, even when it’s just increased office visits that are encouraged, the results are staggering. Take a look at these results from Aetna in a Medicare Advantage Program in Maine:

- 50% fewer inpatient hospital days
- 45% fewer hospital admissions
- 56% fewer readmissions than unmanaged Medicare populations statewide
- Costs were 16.5% to 33% lower across all categories of Medicare costs

As part of a collaboration strategy, a large part of the program seemed to be encouraging office visits, follow-up care, and sharing information. In other words, ongoing communication and behavior change can have potent benefits. But why a social strategy?

**We need scalable communications to fit our healthcare system.**

We need to scale and improve patient-provider, provider-provider, and patient-patient communication. We can’t go back to Marcus Welby days. We must find a scalable solution to the disengagement our industrialized system has created. If it works on the small scale of office visits, it makes sense to scale the relationships with social technologies.
A social strategy can make it easy, effective, and low cost to keep up with patients.

The idea of engaging on a massive scale just wasn’t doable before. To take the most familiar example, before Facebook you probably had no idea what most college and high school friends were up to. Who had the time to keep up? But with social technologies we do, it’s easy, effective and low cost.

Most healthcare institutions haven’t kept up with patients once they’ve left the office or the hospital. Who has the time or the resources? Of course, value-based reimbursement strategies are making it much more valuable to keep up with patients than to keep up with high school friends. Pioneer ACOs recommend patients become part of the care team to improve care and outcomes. Imagine just how many care teams each provider would need to manage thousands of patients.

To make thousands of patients part of the care teams, a communications solution must be developed to match that scale, and that’s really what social media is designed to accomplish. It’s also largely user-controlled and a preferred way to get in touch. Quality-focused institutions must be thinking about their social strategy for this reason alone, but here are nine more:

A social strategy doesn’t mean doctors on Facebook.

Facebook was built for sharing personal information and reforming old connections. The context for most of healthcare is, of course, very different.

There are and will continue to be solutions that fit healthcare. Social technologies are about setting up ways to facilitate digital sharing and ongoing communication in healthcare for the context you are trying to address. A social strategy is a plan and set of tools, not any one tool.

Care measures improve with social interaction.

PatientsLikeMe has shown a dose-response curve with increased social interaction in epilepsy communities, similar to what you might see for a drug. How might this work? What might be the sociokinetics of the engagement drug?

Provide valuable missing information for self-care.

We talk a lot about self-tracking in healthcare as a form of modern engagement, but in reality for chronic disease, self-tracking is not as
fun or as easy as it should be. In a recent article in *The Atlantic* titled “The Diabetes Paradox,” Thomas Goetz makes the point that self-tracking often isn’t fun or motivating—it’s a long slog with few rewards.

Still, a diabetes sufferer who commented on Thomas Goetz’s article said:

“To me the problem (with self-tracking) comes when education about the disease is limited and patients are sent away with little more than a user manual for their new glucometer. Add to that the fact the doctors spend less and less time with patients and/or don’t return phone calls, give out email addresses, etc. Self-management is not the problem. It is the solution. People need help using these tools. I encourage all diabetics out there reading this to find yourself an online support group.”

The solution offered? Essentially a social network to share valuable missing information. What’s being recommended is not really support in the traditional emotional sense, it’s information on how to perform the necessary self-tracking tasks because there’s nowhere else to go. People want reliable answers, and they’re frequently getting them from social networks.

As Susannah Fox, formerly of Pew Research Center’s Internet & American Life Project, has learned, “So many patient community leaders have told us: We are about science, not hugs.”

For caregivers concerned that patients might not get accurate answers, that’s even more of a reason to have a social strategy. Wouldn’t you rather be a part of the online community and be able to see what your patients see or provide a way for them to filter the best information?

Amazon’s recommendations have shown for a long time that the users of a service can add a lot of value by sharing. Social media has proved that the crowd is a good source of low-cost, high-value information if it’s properly curated and filtered.

**Influencing Behavior Change**

Motivation, ability, and triggers are the three components in the Fogg behavior model that influence behavior change. Intuitively, we know social networks have the potential to provide all three. Changing healthcare is ultimately going to be about behavior change and how healthier, coordinated individual actions can be influenced on a massive scale.
Seventy percent of healthcare costs are a direct result of behavior. That means just about anyone in healthcare will eventually find themselves in the behavior change business. Dan Munro’s Forbes article on Ernst & Young’s patient-centric vision of healthcare quotes Glen Giovannetti:

“Almost every life sciences company, regardless of their product or offering, will soon be expected to help change behaviors and deliver better health outcomes.”

If you want to influence behavior (which you do or will), you really can’t ignore a social strategy. We’ll need to get really good at engagement and behavior change on a massive scale. Social media strategies may be our best option, not to push behavior in a direction but to provide systems that let behavior naturally migrate toward the health people seek.

**Promote tracking and behavior change in chronic disease.**

Chronic diseases exist in a difficult engagement sphere between the self-actualized, quantified selfers of Maslow’s pyramid and those at the other end who are concerned about not dying, which I described previously. Social influences appear to be helpful for chronic diseases where depression can be a problem.

**Trust**

The following graph shows why you need a social strategy to build trust rather than just a digital communications strategy, and it boils down to this: People trust information on social networks more than other media.
To what extent do you trust the following forms of advertising?

<table>
<thead>
<tr>
<th>Form of Advertising</th>
<th>Trust Completely/Somewhat</th>
<th>Don’t Trust Much/At All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendations from people I know</td>
<td>92%</td>
<td>8%</td>
</tr>
<tr>
<td>Consumer opinions posted online</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>Editorial content such as newspaper articles</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>Branded websites</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>Emails I signed up for</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Ads on TV</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>Brand sponsorships</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>Ads in magazines</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>Billboards and other outdoor advertising</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>Ads in newspapers</td>
<td>46%</td>
<td>54%</td>
</tr>
<tr>
<td>Ads on radio</td>
<td>42%</td>
<td>58%</td>
</tr>
<tr>
<td>Ads before movies</td>
<td>41%</td>
<td>59%</td>
</tr>
<tr>
<td>TV program product placements</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Ads served in search engine results</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Online video ads</td>
<td>36%</td>
<td>64%</td>
</tr>
<tr>
<td>Ads on social networks</td>
<td>36%</td>
<td>64%</td>
</tr>
<tr>
<td>Online banner ads</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>Display ads on mobile devices</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>Text ads on mobile phones</td>
<td>29%</td>
<td>71%</td>
</tr>
</tbody>
</table>

Global Average Source: Nielsen Global Trust in Advertising Survey, Q3 2011

The takeaway is that you can’t fake an engagement strategy. By a factor of more than 2 to 1, people trust recommendations from friends over any other kind of digital communication.

**People frequently seek day-to-day health guidance from friends, family, and social networks.**

Do individuals trust this information more than they trust advice from their physician? Not necessarily, but, according to Pew Research, it depends on the type (and timing) of information needs.
Who is more helpful when you need:

<table>
<thead>
<tr>
<th>Times when professionals matter most</th>
<th>Professional sources like doctors and nurses</th>
<th>Fellow patients, friends, and family</th>
<th>Both equally</th>
</tr>
</thead>
<tbody>
<tr>
<td>An accurate medical diagnosis</td>
<td>91%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Information about prescription drugs</td>
<td>85%</td>
<td>9%</td>
<td>3%</td>
</tr>
<tr>
<td>Information about alternative treatments</td>
<td>63%</td>
<td>24%</td>
<td>5%</td>
</tr>
<tr>
<td>A recommendation for a doctor or specialist</td>
<td>62%</td>
<td>27%</td>
<td>6%</td>
</tr>
<tr>
<td>A recommendation for a hospital or other medical facility</td>
<td>62%</td>
<td>27%</td>
<td>6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Times when non-professionals matter most</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional support in dealing with a health issue</td>
<td>30%</td>
<td>59%</td>
<td>5%</td>
</tr>
<tr>
<td>A quick remedy for an everyday health issue</td>
<td>41%</td>
<td>51%</td>
<td>4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Times when the two groups are equally helpful</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical advice for coping with day-to-day health situations</td>
<td>43%</td>
<td>46%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Pew Research Center’s Internet & American Life Project, August 9–September 13, 2010 Survey. N=3001 adults and the margin of error is +/- 3 percentage points for the full sample.

The opportunity to influence behavior and to reduce costs has to come from day-to-day health situations where doctors and social networks score about even.

**Caregiver Education**

Physicians need hugs, referrals, and great content too. Social can provide all of these and help avoid physician burnout.

From orthopedic surgeon Howard Luks’ post on Medicine and Social Media ROI:

“I derive an ENORMOUS amount of satisfaction simply from educating and interacting with the public, and helping them
“clear the windshield of doubt”. 50+ thank you emails a day, a thank you from a happy reconstructed patient, seeing a new MD producing meaningful content appearing in a Google search, and helping people understand the complexities of our healthcare system and medical treatment decision making is the (Social) ROI I am ultimately searching for ... and realizing. The rest is an added “bonus” ... and is quite real!”

We all want hugs too.

According to Susannah Fox, who discussed consumer attitudes toward health and online behavior in her presentation Healthcare Out Loud:

“Love is the reason why people want to stay healthy. It’s why they want to stay well. It’s why people feel compelled to share, to give each other emotional support, to track observations of daily living, to track how a medication treats them as an individual so others can learn from it. Because of love. Because we want to help each other.”

Social communication strategies can help with that too. Isn’t that why we call it “care”?
I hope it’s clear by now that developing engagement is a strategy, not an off-the-shelf tool. To get engagement, you first need to get the attention of those you are trying to engage.

As discussed earlier, cardiac care is a great place to start a patient-engagement initiative. When someone has a heart attack, it tends to get their attention. To win the attention war and to shift care toward value, it will require good health to have as much attention as poor health.

Here are some suggestions we use for winning the attention war in 9 steps:

1. **Know what health problem you are trying to solve.**

Heart disease and diabetes are different, albeit related and overlapping. To solve the different motivations and concerns, they’ll need to be approached differently. You can’t approach all problems with the same tools, and the problems are almost as unique as the patients who have the disease.

Last year, I spoke with Lee Aase, the director of the Mayo Clinic of Social Media, where they run workshops on the use of social media in medicine. The first question that must be answered on their students’ projects is “What business problem are you trying to solve?” This is always a good question to ask when starting any endeavor. Know where you’re headed, and have a goal in mind.

Say you’re trying to improve hospital-acquired infections. Technology doesn’t necessarily need to be part of the solution.

Sky Ridge Medical Center in Colorado, for example, found that onsite patient education works. They learned patients can help reduce infections too. And, with 30-day readmissions incentives, finding a solution is now even more of a priority for the provider.

For physicians, innovative new technologies can be used to let physicians know when it’s time to wash their hands and for how long.

This is just one example, but if you’re interested in reducing readmissions, look at home-monitoring solutions to catch problems early and at easy ways for patients to get in touch quickly and conveniently.
2. Know whose attention you’re trying to get.

Know whose attention you want. Diabetics? Heart patients? Physicians? Nurses?

For physicians, work on motivation and incentives to engage. For patients, work on tools and channels for communication and exchanging data. Patients often have the motivation to engage, and focusing their attention is easier than it is for physicians.

Understand your audience’s current behaviors; then be available on as many channels as possible.

3. Use social tools.

Patient engagement is a strategy, and that doesn’t mean Facebook and Twitter. It means ongoing, two-way communication over the Internet, or wherever else it makes sense.

Treat each potential engagement as unique, but also scale it for the masses. That may sound like two opposing things, but with the right tools they aren’t. The notion of mass customization in technology has existed for some time, which includes the idea of customizing at scale. Your Amazon account is a great example of a personalized experience at scale.

This kind of approach requires collecting data and conducting research on your audience. Take a market research approach to learn more about your customers’ needs, how they get their information, and what things get their attention.

Know, for instance, how they want to be contacted. In person? Phone? Text?

Ideally, we’ll have not only personalized medicine but personalized engagement. Each approach will require different actions in specific contexts.

Eric Topol mentioned that social tools and mobile technology may be the answer to physician shortages. We go to the doctor to communicate and get guidance, and these tools are communication at scale. We need to continue exploring to find better ways for both patients and physicians to benefit from increased communications.

*You can’t approach all problems with the same tools, and the problems are almost as unique as the patients who have the disease.*
4. Know behavior models and behavioral economics.
Is someone not doing something because they lack the motivation, the ability, or the trigger à la the Fogg Behavior model?

In engagement, becoming aware of consumers’ behavior is only half of the equation; you must work to avoid your own personal biases when analyzing results. As Kahneman has proven, what you see is not all there is.

5. Focus on goals and narratives.
To gain attention, know patient goals and work to provide empowering information that leads to goal completion. Provide tools to those who need them most and who are most motivated to make changes.

After HealthDataPalooza 2012, my takeaway was that patient goals were the “dark matter” of healthcare. The “What do you want to achieve?” question is still true. Patient goals are rarely mentioned with providers, but that’s the information that pulls behavior toward specific decisions and actions. Care needs to be better framed in that context.

People want to get better for love, says Susannah Fox. We want to see our children grow up, we want to enjoy time with our favorite people. Engagement means that you’ve shifted focus to a single point, and we need to harness that focus and attention by delivering care in the context of patient goals.

The first five steps are all research. It’s important to understand a lot about what you’re trying to accomplish before you begin, but when you do begin, start simple and small to reduce risk and still create a big impact.

Ask yourself, “What’s the simplest, easiest and most effective way that could impact change?”

A simple email with patients can do wonders: A 2010 Kaiser Permanente study got blood pressure under control in 90% of patients in the study strictly with email communication. The average rate is 40%.

Although the domain of understanding patient engagement can be complex, a first foray into it doesn’t have to be. Starting simple means that an early solution is likely to have a better fit. You can always take on more complex projects as you gain experience and as needs and customized approaches arise.
7. **Try something and measure results.**

Atul Gawande said that it’s “time to go from standards and guidelines to checklists and feedback loops.” This is true of any complex domain.

Fortunately, there are a wide range of proven strategic methods to learn from and to incorporate. Methods like agile software development, user-experience design, machine learning, and other techniques contain practices that are applicable to any arena.

If you want answers, you have to ask questions under a variety of circumstances. It’s a common user-experience design refrain that complex systems require an iterative approach. We often don’t understand the questions, much less the answers when we begin an endeavor that’s as complex as technology-enabled care delivery. As Chad Johnson said recently in regard to health IT implementations, you need to create a mission to have success.

You can’t program for every scenario. It’s much more important to learn from each result. Design your strategy to include experimentation, learning, and fast pivots.

8. **Understand context.**

Messages will work best when they are delivered in the context where people can best hear them and focus their attention. We inhabit several types of contexts, such as:

- **Digital:** What hardware and tools are being used?
- **Social/cultural:** Who has influence?
- **Geographic:** Are they in a location where they can act? What around them influences day-to-day decisions?
- **Emotional/motivational:** What emotional triggers drive specific behaviors?
- **Ability:** What skills does this person have?

9. **Take an open approach.**

Allow crowd-based improvements where communities can work to share with each other.

PatientsLikeMe allows for summary data so patients can see how they are doing in comparison to others. People are deeply motivated when they can see how they compare to others their age, sex, and condition.
10. Follow an analysis-driven implementation plan.

Following is an implementation process that I have found successful:

- Determine network goals of the organization (what do you want people, and their network, to do?)
- Research the network of influences
- Understand the decision-making contexts of the people in the network and how those networks of influence affect decisions
- Develop messaging and contextual strategies to influence decisions in those contexts, ensuring they come from trusted sources
- Build structures to capture data and perform analytics
- Automate measuring and learning, and repeat at regular intervals
CONCLUSION

This is all new. It’s up to all of us to continually think about how we can shift the business of healthcare to the business of health and to share success. Our success will depend on enhancing the business case for patient engagement. Resources will need to be diverted from the $1 trillion dollars in preventable costs toward fixing millions of lives lost to preventable disease. The good news is, we all stand to benefit in real financial terms and in quality of life.

People come together to work on things and support each other when they have something to share. E.O. Wilson talks about how almost all social animals share a nest. Ask yourself, “For people to work together on health, what is their nest? What drives the community to work for each other? What can it protect?”

People are willing to share and willing to defend a shared resource. Social networks are a prime example. If you share, you will reap the benefits of sharing, so start sharing what you can that has the potential to help others. It’s a continual surprise what communities develop.

My own belief is that it’s us, we are the resource. We need to protect ourselves and our knowledge with better care and we need to rely on each other to accomplish better health and drive more wealth. As we move to improved insurance coverage, I predict that we’ll see a measurable bubble-up economy of health and health information. There are trillions of dollars available if we do it well, and we’re just starting to bring some of these costs down. Let’s ensure we’re doing it in a way that truly protects our national health asset: us.

We need to protect ourselves and our knowledge with better care and we need to rely on each other to accomplish better health and drive more wealth.
References


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