

# THE MARKETPLACE REVOLUTION

SHATTERING THE FOUNDATION OF THE \$3 TRILLION  
SICK-CARE MARKETPLACE

TOM MAIN AND ADRIAN SLYWOTZKY



# AUTHORS



## TOM MAIN

Tom Main is a partner in the Oliver Wyman Health and Life Sciences Practice and the founder of the Oliver Wyman Health Innovation Center. Dedicated to building a vastly better health and wellness marketplace, Tom is a healthcare thought leader with articles published in *The Atlantic*, *Forbes*, *WIRED*, and *Entrepreneur*. He has provided a picture of the future health market through his white paper series, which includes “*The Quiet Healthcare Revolution*” (2011), *The Volume-to-Value Revolution* (2012), *The Patient-to-Consumer Revolution* (2014) and most recently *The Marketplace Revolution*.

HE CAN BE REACHED AT [TOM.MAIN@OLIVERWYMAN.COM](mailto:TOM.MAIN@OLIVERWYMAN.COM).



## ADRIAN SLYWOTZKY

Adrian Slywotzky is a partner emeritus of Oliver Wyman. Since 1979, he has consulted to Fortune 500 companies from a broad cross-section of industries on issues related to new business development and creating new areas of value growth. He is the author of eight books, the most recent of which is *Demand: Creating What People Love Before They Know They Want It* (2011) and co-authored *The Volume-to-Value Revolution* in 2012. Adrian has been featured at the World Economic Forum in Davos, Switzerland, and at a number of senior executive conferences.

HE CAN BE REACHED AT [ADRIAN.SLYWOTZKY@OLIVERWYMAN.COM](mailto:ADRIAN.SLYWOTZKY@OLIVERWYMAN.COM)

# CONTENTS

P.6 Preface — P.8 Meet Fred — P.10 An industry in transition

P.18 Competing in the era of multi-chain ecosystems — P.16 Why now? — P.14 Not us, not here (not likely)

P.20 Change in action: four 2.0 ecosystems

P.22 Ecosystem 1: retail healthy living hub — P.24 Ecosystem 2: chronic care hub — P.26 Ecosystem 3: consumer market hub

P.34 Toward the future: the 2.0 leadership challenge — P.30 The game plan for incumbents — P.28 Ecosystem 4: precision and personalized medicine hub



# PREFACE

**IMAGINE** a healthcare marketplace in which consumers set the rules and define the basis of competition. The players in such a market would have to be transparent about price and value. They also would have to be available when consumers want and on consumers' terms. It would mean service offerings would no longer start and stop with sick care. The idea of "no symptom, no service" would be dead on arrival. And consumers just wouldn't tolerate the current nearly unnavigable maze of fragmented services, which are designed primarily around the convenience of doctors.

This scenario is not so far-fetched. In truth, this revolution is already well underway, and the healthcare market as we know it will soon cease to exist. The current \$3 trillion sick-care marketplace is already bending to consumer-centric pressures. What we see emerging is a market freed from the economic framework of sick-care codes and plan designs. This new market will blend health, wellness, and lifestyle into a single integrated marketplace. It will not be constricted by traditional boundaries or rules of engagement. It will be transparent and accessible. It will, for the first time, give consumers what they want, when they want, and on their own terms.

This is no different than what Apple, Google, and Amazon have done to other marketplaces, reinventing everything from music, media, and shopping to how we get from one place to another. They have collapsed industries, rebuilt them on consumer terms, radically improved personalization and value, and expanded the scope of the relationship they enjoy with the billions of consumers that they serve around the globe. Now it is healthcare's turn, and the opportunity to improve value is staggering.

---

*The next generation of great "extroverted" business ecosystems is creating consumer value today, and they are doing it without regard to traditional boundaries.*

---

This new market, with its broad umbrella of offerings, will dwarf the old market. In this paper, we predict that combining the traditional sick-care market with wellness, and better-living products and services will create a new, integrated \$6 trillion health, wellness, and lifestyle market, redefining the consumer experience and redistributing more than \$1 trillion in value to new health and wellness ecosystems. Who do you think will be the Amazon or Uber of the emerging consumer health and wellness marketplace?

*The Marketplace Revolution* is the culmination of a multi-year series of white papers examining healthcare market transformation. Our work is informed by trends and market forces, but focused on game-changing innovation and the rise of new business designs capable of driving transformational consumer value.

To understand what is possible and what it will take to shift the course of our current sick-care model, we developed a network of more than 50 CEO collaborators and studied hundreds of innovators and incumbents. Our goal from the beginning has been to accelerate the rate of market transformation and provide consumers, innovators, and incumbents with a clear view of what is possible, together with actionable strategies and business models for driving change and increasing shareholder returns.

This series began with the “Quiet Healthcare Revolution,” a 2011 article published in *The Atlantic* that provided an in-depth look at CareMore and the frail-elder market. In *The Volume-to-Value Revolution* (2012), we introduced the three big waves of change: patient-centered care, consumer engagement, and the science of prevention. And in the most recent paper, *The Patient-to-Consumer Revolution* (2014), we introduced the idea of consumer-centricity and the powerful connection between health and lifestyle. That paper highlighted the potential of consumer technology to make health and wellness more personalized, mobile, location independent, and nearly error free.

These three foundational papers helped us understand that 40 percent better value and a 100 times improvement in the consumer experience are not only possible, but already happening in the market. Through our work on this series, we also developed a much deeper appreciation for the vast differences in innovation, speed, and scale between clinic-based models and consumer tech. This left us with the question about how much of the health, wellness, and better-living market could be enabled through consumer technology.

We knew that for *The Marketplace Revolution* it was time to shift our focus from market forces and organizational implications to marketplace structure and the rise of multi-chain ecosystems as the dominant new business model. Herein, we introduce the concept of the “Health Market 2.0” and highlight the new basis of competition. We share our insights on next-generation business designs and describe how multiple industries are converging to create the new consumer health, wellness, and better-living marketplace. These ecosystems are built on a borderless business model, dependent on partnerships and the convergence of previously disconnected value promises. We call them multi-value chain ecosystems.

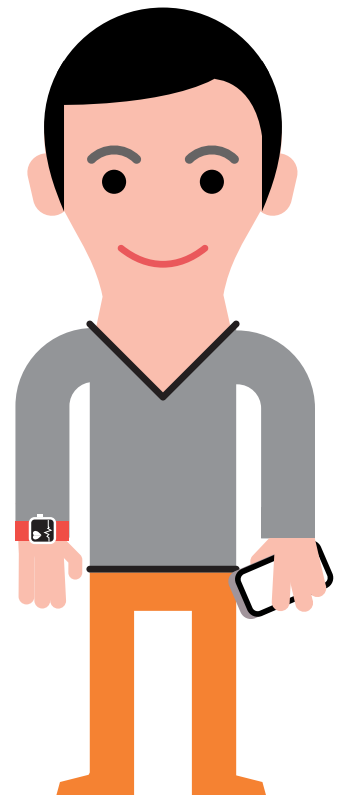
In this paper, we present in detail four of the new multi-chain business designs:

- Retail Healthy Living Hub
- Chronic Care Hub
- Consumer Market Hub
- Precision and Personalized Medicine Hub

While the paper presents a bold vision – a complete restructuring of the market – it is not futuristic. The next generation of great “extroverted” business ecosystems is creating consumer value today, and they are doing it without regard to industry structure or traditional boundaries.

Whether you are an incumbent trying to define your role in the shifting landscape, a customer eager to reap the benefits of a consumer-centric market, or a new multi-chain entrant looking for an unequalled growth runway, the possibilities – as spelled out here – are vast. Welcome to the revolution ●

# MEET FRED





FRED awakes to a personalized morning ring tone. He checks email, the weather, maybe Facebook, the news headlines, and overseas markets. His home automation system has opened the blinds and is brewing the coffee.

Fred reaches for his inhaler. The LED display tells him to take an extra puff because pollen counts in Charleston are high today; he will be there in a few hours after a morning flight. Fred has kept his asthma under near-perfect control in the year since he got a new inhaler that talks to his smartphone.

Fred's Uber arrives on time, and he's off to the airport. His e-ticket is on his smartwatch, and he breezes through TSA Pre, placing his watch over the scanner. The watch tells Fred his gate number and where the nearest Starbucks is located. Best of all, there's a pre-paid Starbucks card on the watch – slick.

Fred lands in Charleston and checks his blood-sugar level. (He was diagnosed with type 2 diabetes a few years ago and is working to keep it under control.) Before he gets started, the smart meter reminds him of a couple of recent low readings. A quick test indicates another low reading (45), and Fred gets a text message suggesting he drink some apple juice and test again in 30 minutes. Fred gets another text, this one is from his spouse. She's checking in on him, as she also got a message that his level is low. Fred checks his blood-sugar level again. Still low.

Fred's phone rings and a certified diabetes educator is on the line asking how he's doing. She makes a few suggestions about what to eat and how to modify the insulin dose, and stays on the line to make sure Fred is okay.

The diabetes educator calls Fred back in 30 minutes and asks if he would like his recent blood-sugar readings shared with his pharmacist or care team. Fred gets another text letting him know the locations of nearby pharmacy clinics, if needed. Fred gets one last text, this one from his sister. "Saw your values are good," the message reads. "Keep up the good work!" Back on track, Fred is off to business meetings.

Fred reflects back on all of the work he missed over the past five years – and the many trips he had to make to the emergency room and urgent-care clinics. It is hard for him to imagine ever going back to those old days now; they seem so archaic ●

# AN INDUSTRY IN TRANSITION

**FRED** may be fictional, but he is not hypothetical. Fred is a reflection of the “silicon” speed of change in today’s market – the 24/7 focus on wellness and metrics, the digital/mobile imperative, the proactive consumer, and the demand for value. Meet Fred and say hello to Health Market 2.0.

Over the past five years, innovation has exploded within the health and wellness space. What we thought were the big changes – care-model redesign and fee-for-value payment systems – are now being dwarfed by today’s consumer-tech, retail, and scientific advancements. Companies have already launched better-living, connected, smart solutions for diabetes, congestive heart failure, asthma, and a select number of neurological disorders. These companies are not applying single innovations to Health Market 1.0 business designs. Nor are they constrained by provider CPT codes or payers’ plan-of-benefits. Rather than perpetuating the existing business model, they have set out to build something new and different – a healthcare business design that actually focuses on health and meets consumers’ needs via a highly personalized when-how-and-where-they-want-it model.

Take Fred. In Health Market 1.0, Fred goes to his doctors and the emergency room when he is symptomatic, and he racks up nearly \$25,000 in costs every year; not to mention the tally of his lost productivity and wages. In Health Market 2.0, on the other hand, the focus is on prevention, and the system bridges health, medication management, nutrition, stress management, and behavior change into a single personalized model just for Fred.

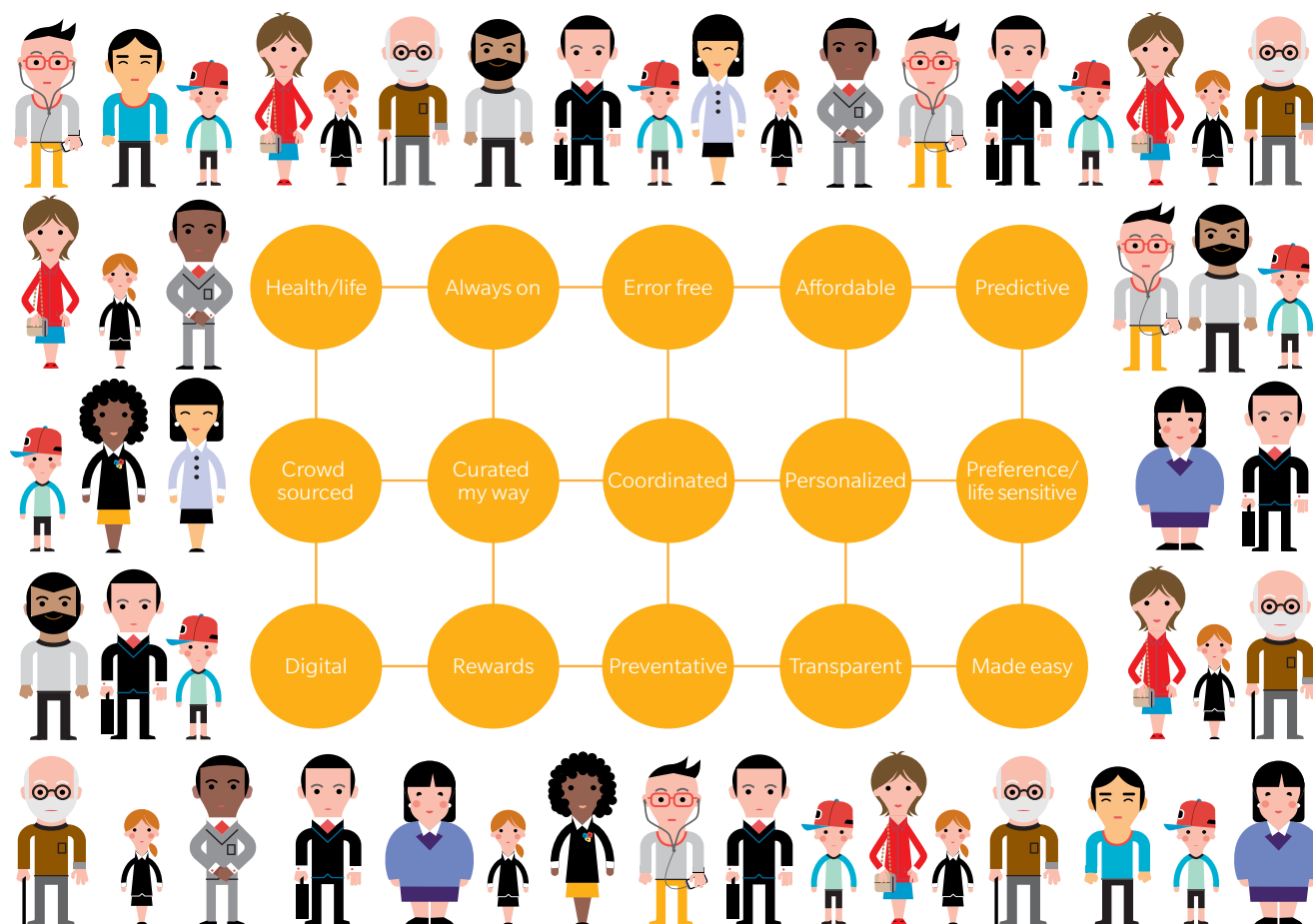
This business design is inherently dependent on companies collaborating with others, delivering the best of what Fred wants in an integrated and contextually relevant way. (See Figure 1.) Smart-care companies such as Iora Health, Alignment Healthcare, Qliance, CareMore, Southcentral Foundation, and Cornerstone Health Care have all demonstrated that they can help Fred live better and lower his total cost of care by more than 25 percent, all while slowing his medical-cost trend line and delivering a significantly better experience.

As Health Market 2.0 continues to evolve, the system will become even more integrated, holistic, and personalized – focusing on whatever Fred needs to live healthier with chronic disease. New business designs will include biometric monitoring with passive devices that are wirelessly connected to the cloud. They will help Fred manage how he eats, encourage him to take his daily walk, and help to prevent disease flare-ups and medical emergencies.

The result is that Fred’s total yearly cost could drop from almost \$25,000 to potentially less than \$10,000. He will live better – experiencing far fewer disease-driven events now that his disease is under control. He even has an excellent chance of reversing the disease or slowing its progress. Fred can finally start living more like everyone else, and he’ll feel a sense of control over his health and his life. That’s powerful stuff.

Creating a consumer health, wellness, and lifestyle market of this kind makes life better and easier for Fred. The new market will converge and integrate existing markets into a single market that revolves around the consumer’s life. It helps Fred get what he wants on his terms, and makes it all more affordable.

**FIGURE 1:** THE PROMISE AND POSSIBILITY OF A VASTLY BETTER MARKETPLACE



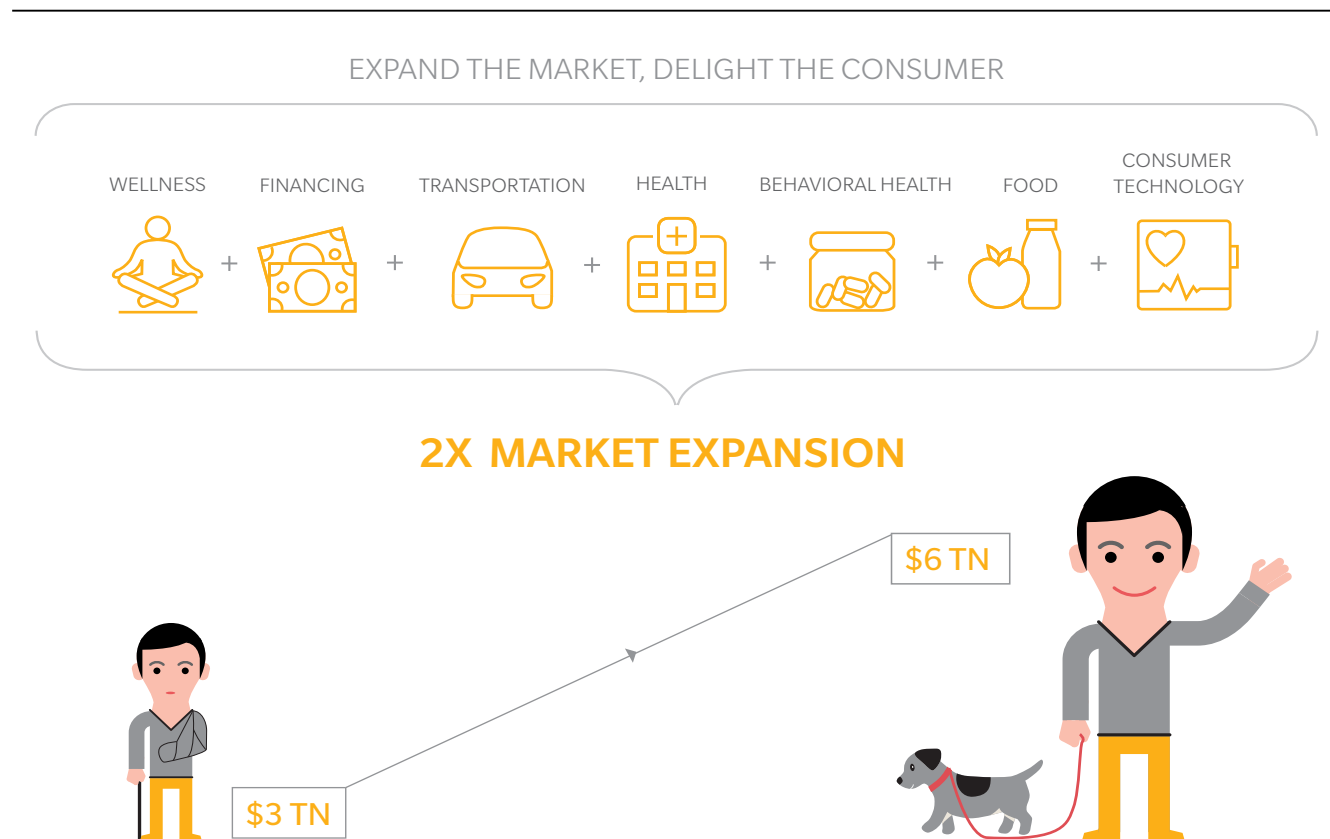
Sick care weds wellness, but also fitness, mobile services, smart homes, weight loss, transportation, nutrition, and more, forming a massive new \$6 trillion ecosystem that starts and stops based on consumer’s total needs. (See Figure 2.)

We are not talking about a doubling of the current sick-care market. In fact, we expect the sick-care portion of the new marketplace to decrease slightly. That’s because incorporating health and wellness into the marketplace will enable new players to provide better health-management support and services to people living with chronic diseases. For many chronic diseases, the keys to improvement are not on the sick-care side, but rather in healthier living (daily walks, less stress, better food, medication compliance, social engagement, etc.). It is exciting to think about a market that supports consumers in prevention (avoiding expensive and disruptive acute flare-ups) and in staying healthy, opposed to waiting for them to be sick.

So what might be inside this new marketplace? Food/nutrition is a given, but also things like apparel and wearable devices (fitness bands, shoes, exercise clothing); housing that enables seniors to safely age-in-place or supports health-minded consumers (“smart” homes with biometric monitoring, gigabit fiber, and healthy-housing solutions); transportation; and financing (for some consumers high deductibles or co-pays mean no healthcare). For most consumers, sick care is but a small fragment of their personalized health and wellness ecosystem. This new marketplace represents the opportunity to truly transform the value equation for consumers and get our U.S health system back on sustainable track.

High-quality sick-care services still will be critical in the new marketplace, but improved consumer engagement, predict/prevent apps, and lifestyle changes will curb demand for them. As a result, Fred is more likely to partner with a multi-chain better-living organizations than he is with traditional sick-care providers.

**FIGURE 2: HEALTH AND WELLNESS THE CONSUMER’S WAY – THE NEW \$6 TRILLION MARKETPLACE**



And that means enormous opportunity exists for those who can step in and serve as Fred’s better-living partner. Our models suggest that more than a trillion dollars of value will shift within the new health and wellness marketplace from traditional sick-care players to a variety of new consumer ecosystems designed to meet the unique needs of different consumer segments.

To grab a share of this new value (and ensure that they don’t get left behind altogether), healthcare incumbents will need to adopt a new mindset. In Health Market 2.0, traditional B2B supply-chain controls (volume-driven pricing across fragmented provider delivery sites) will give way to transparent consumer markets. Incumbents focused on transactional sick care and benefit-plan revenue-cycle optimization will have to take a step back and view their business models through a consumer lens. In this new market, growth rewards will go to the innovators who delight consumers and transform the value equation. That is why understanding (and building for) the consumer hassle map is critical to success. (See Figure 3.)

In Health Market 2.0, new business ecosystems will meld together multiple value chains that tackle that hassle map,

giving consumers health and wellness on their terms – curated, personalized, and easy to navigate. Retailers like Walgreens and Walmart are already integrating sick care, nutrition, diagnostics, pharmacy, home monitoring, coaching, and social communities into their business models, enabling them to expand their relationships with their customers.

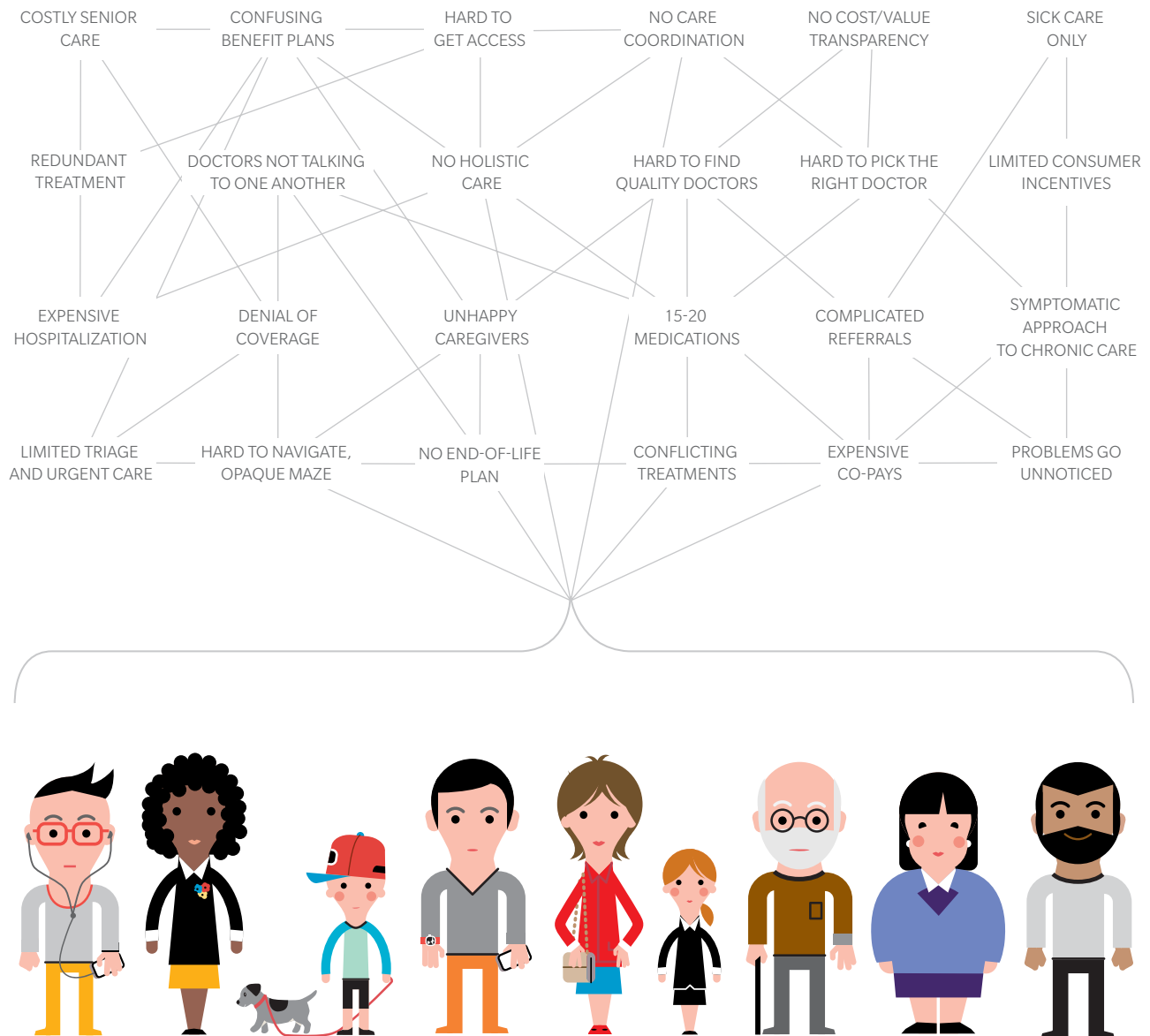
Given the complexity of the consumer hassle map, no one player is likely to connect all of the dots and build a standalone ecosystem. Most legacy organizations are grossly ill-equipped to launch a new 2.0 ecosystem. Based on our review of the market, most health systems and health plans have less than 40 percent of the competencies that they will need to compete in Health Market 2.0. These companies will need to form alliances with retail, tech, “new science,” and food/fitness firms to tap into important capabilities and strengths from outside the industry. The tech and retail sectors, for example, are masters of demand, and have closer relationships with consumers than traditional healthcare players. Engaging these sorts of external players in your new business design can expand the market, change the basis of competition, and carve out new territory in the vast Health Market 2.0 frontier.

Some legacy organizations may argue that they already have many of these initiatives underway and are well along the path of becoming a consumer-centric health organization. While such developments are indeed positive, it is difficult for incumbents to truly pivot their business models: They tend to protect the current profit models at the expense of advancing consumer-centric initiatives. Or they lack the deep consumer understanding required to run the best consumer plays. As a result, the new initiatives inevitably run their course, adding

incremental value, but rarely driving fundamental shifts in the underlying business design.

In today's rapidly shifting and competitive landscape, this sort of defensive consolidation is not necessarily the best answer. Doing what you already do better is simply not enough to meet the heightened consumer expectations in the dynamic, multi-value-chain age of Apple, Amazon, and Google •

**FIGURE 3:** START WITH THE CONSUMER HASSLE MAP



# NOT US, NOT HERE (NOT LIKELY)

**HEALTHCARE** organizations that think the industry is immune to this sort of intense consumer pressure need look no further than their tablet (where they read the news) or their iTunes account (where their favorite artists are available at the touch of a finger). Healthcare incumbents today find themselves in the same position as newspapers and the music industry 20 years ago: watching their value migrate to upstart newcomers whose laser-like focus on consumers pushed them to build integrated companies with new business models.

Those initial consumer-focused models morphed into the multi-chain models we see today. Over the past 10 years, consumer-tech companies have displaced entire “single-chain” industries (that is, industries with a narrowly defined value proposition, like the newspaper or taxi industries), while bringing massive value to consumers. Apple, Amazon, Google, and later “unicorns” like Netflix, Airbnb, and Uber have all converged value chains. Single-chain industries have suddenly become driven by multi-value chain powerhouse companies. Is Google a technology, telecommunications, media, or consumer-device company? Is Uber a car service, a retailer, or a cloud-based Big Data company?

As value chains have converged, a new winning business model has emerged. Tech leaders looked at the hassle map of their customer, and asked: How can we radically improve the customer’s experience, economics, and value? Are we suffering from the curse of the incomplete value proposition or from the curse of limited distribution? How do we connect the dots from whatever industry it takes to make that radical improvement possible?” As a result, industry boundaries dissolved.

---

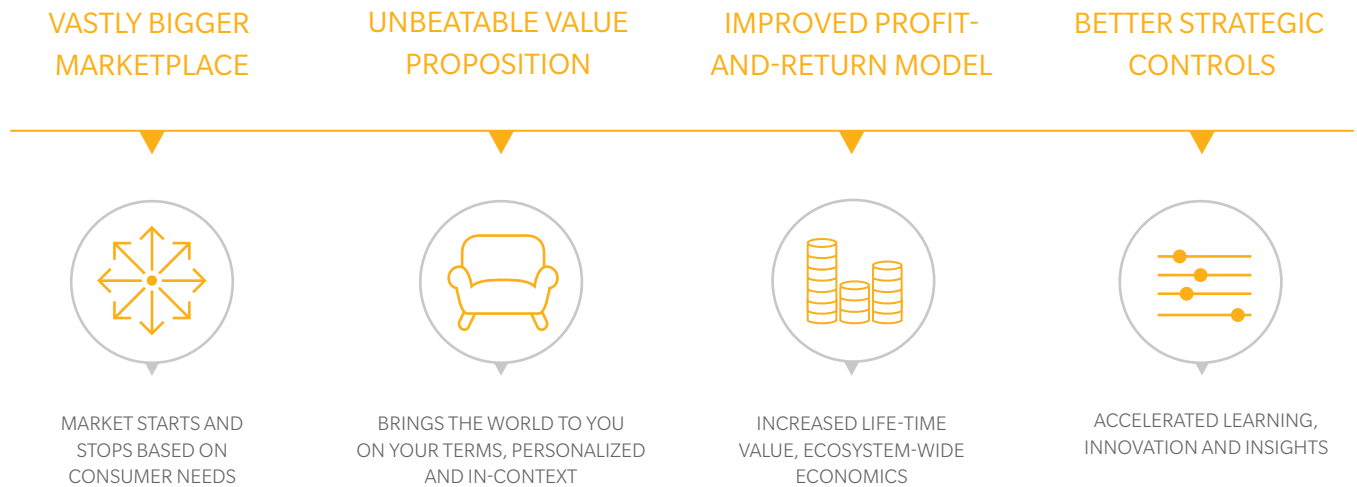
*People have come to expect a mobile, personalized experience; why would they not expect the same for health and wellness?*

---

Today, we take for granted personalized news/media streaming, transportation-on-demand, and simplified decision making through social networks. Like Fred, we always know the weather (anywhere), how to get where we want to go (avoiding traffic), and what 1,000 other people think about a movie, restaurant, or late-breaking news story. Thanks to the consumer-tech revolution, we don’t have to make connections between media and music, navigation and destination, buying need and decision. It’s streamlined and curated and accessible and available. And we like it. (See Figure 4.)

One-touch summoning of an Uber ride obviously is not the same as navigating a complex medical situation. But people have come to expect a mobile, personalized, follow-them-anywhere, hassle-free experience in many other aspects of their life; why would they not expect the same for the majority of their health and wellness needs?

**FIGURE 4: RESET THE BASIS OF COMPETITION LEVERAGING THE MULTI-CHAIN ADVANTAGE**



Healthcare institutions today have a choice: remain in the B2B world of benefits and diagnostic codes, or transition to the consumer world with open, interoperable, transparent, and widely available services.

It is worth remembering that people used to think that consumers would never embrace online banking, because money is too personal and high value; that shoppers would always want to touch, see, and smell before they buy; and that the newspaper industry would never die because you can't take a computer into the bathroom.

To be clear: We are not saying that the sick-care model will go away. The health burden grows heavier with age. We have increasing numbers of medically complex patients. We have more people with elevated risk factors and multiple chronic diseases. We have a steady increase in people living in poverty with high-risk profiles and unmet health and social needs. And we live in an environment (pollution, genetically modified organisms, industrial chemicals) that is driving an increase in disease prevalence.

It is tempting to believe that these factors will ensure a robust fee-for-service (FFS) economy for the foreseeable future. Indeed, many parts of our FFS economy will succeed by becoming important plug-ins to new multi-value chain ecosystems. The question is whether they will be key for mere participants or market makers – and what will it mean to be the former?

Even those who succeed in marrying FFS economics to the new Health Market 2.0 model will face unrelenting pressure. Consumer-tech solutions will cover increasing portions of the health and wellness marketplace, reducing the scope of traditional sick care and leaving competitors jostling in an overcrowded and ever-shrinking marketplace. As an example, mobile health players such as AmWell, Teledoc, and MDLive are already at scale and offer a growing list of sick-care services at home or on-the-go for less than half the cost of traditional provider clinics ●

# WHY NOW?

**WHY** hasn't a consumer-tech-enabled, personalized model come to market faster? Why haven't the health and wellness markets converged? The answer lies in the truth that up to now, as Medicare goes, so goes the market. Our sick-care system has been built around hospitals and specialists, and their biggest customer is the over 65-year-old segment. For most healthcare systems, Medicare represents more than half of inpatient and specialist revenues; and frankly, it is the essential center of the clinical/economic model. Over the past 50 years, Centers for Medicare & Medicaid Services (CMS) has evolved from cost-plus reimbursement to fee-for-service, and health systems and specialists have optimized their business designs accordingly.

CMS's embedded fee-for-service payment model and regulation-defined essential plan of benefits form the foundation for our walled healthcare city. Layer on risk reserves, physician licenses, actuarial-based pricing/underwriting, medical liability insurance, inpatient capital intensity, the Health Insurance Portability and Accountability Act (HIPAA), compliance requirements, and the depth of our specialist-driven culture, and it is no surprise that the market has been insulated from the consumer revolution and withstood the threat of transformation.

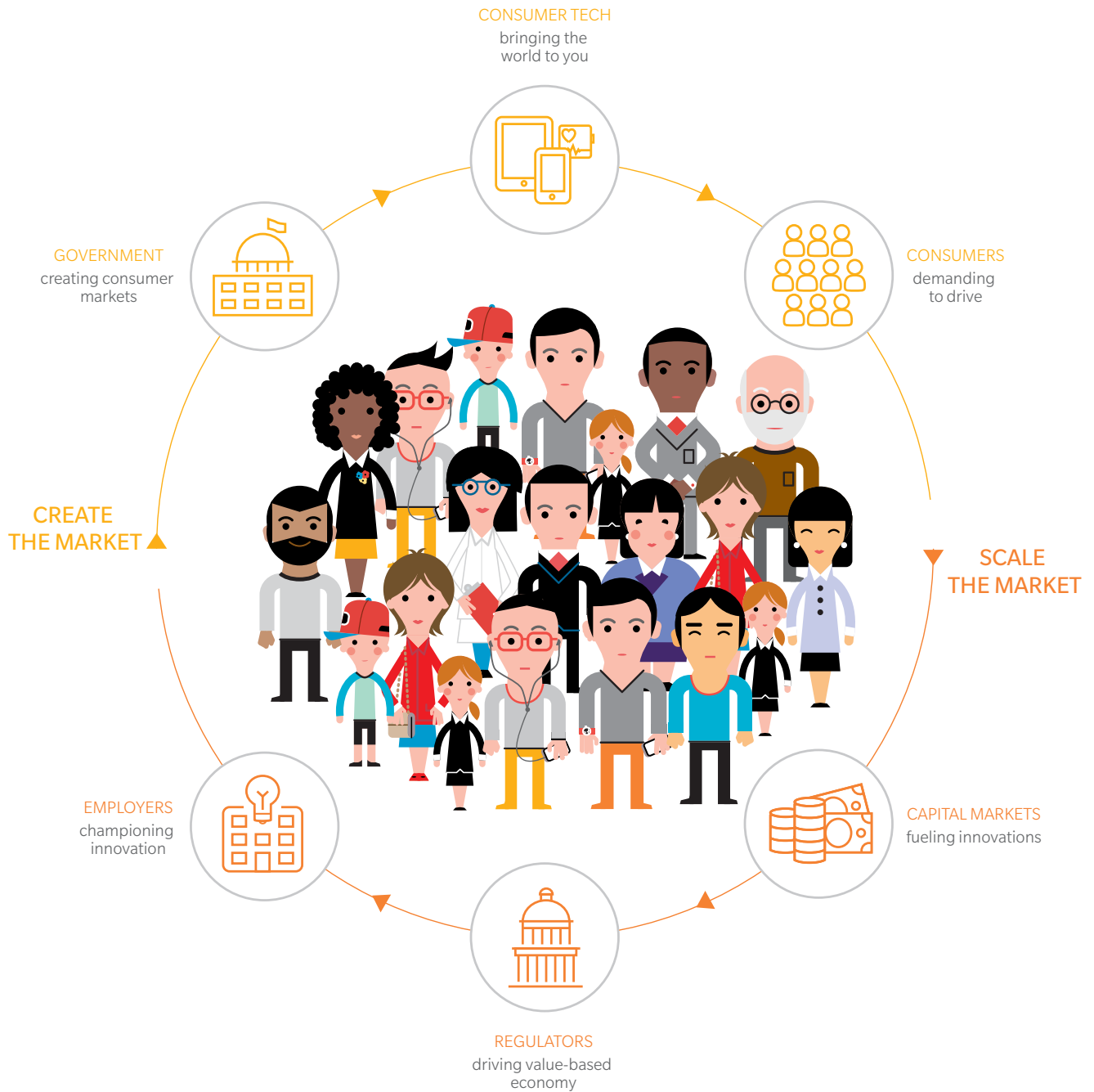
Now however a number of convergent mega-trends are driving structural change, rebuilding the underlying competitive framework, and enabling the rise of a consumer marketplace that bridges health, wellness, and lifestyle. (See Figure 5.) These consumer-centric trends include:

- The US Department of Health and Human Services (HHS) and CMS are leading the way on value-based reimbursement and transparency.
- Medicare and Medicare Advantage are moving the market to quality-based competition through the Medicare Star Rating System.
- Affordable Care Act (ACA) Public Exchanges are moving more than 25 million Americans through a consumer shopping marketplace that is enabled by comparative shopping tools across plan designs.
- Employers are steadily increasing covered employees' financial exposure, causing consumers to want to "shop" in order to save out-of-pocket dollars.
- The largest self-funded employers are teaming up (via the newly formed Health Transformation Alliance) to share data and make the current multi-layered supply chain more efficient.
- Consumer-tech companies are building new web-enabled engagement models, shopping tools, and chronic care models, and gaining traction with consumers in the process.
- Health systems and physician organizations are moving to more consumer-friendly, value-based care models with new care teams and personalized approaches.
- The investment capital and IPO markets have fueled consumer-tech innovation in the health and wellness space.
- Precision medicine companies are racing down the cost curve – and inventing the personalized medicine marketplace.

Today's transformation is fundamentally different from past market shifts because the consumer – empowered and informed – is actually driving the change, by seeking (and expecting) a superior, value-based experience ●



**FIGURE 5:** MAKING OF THE CONSUMER MARKET – THE PERFECT STORM



# THE THREE BUILDING BLOCKS OF SUCCESS

## COMPETING IN THE ERA OF MULTI-CHAIN BUSINESS ECOSYSTEMS

AS people's lives have become more digitally connected and enabled, it is increasingly apparent how not seamless, coordinated, or digital their healthcare experience is. Consumers are frustrated, and they are weary of trying to connect the many disparate parts of the complex sick-care system. Not to mention the puzzle of basic affordability and access issues, and the trial of meeting their wellness needs in a sick-care market.

Health Market 2.0 is focused on solving those frustrations, by enabling people to live better, fuller, and healthier lives, all while lowering medical costs. The new ecosystems are insightful and focused on defined markets and opportunities that improve consumers' lives. They bring the world to individuals on their terms, in their language and life context. (Think of Fred.)

Our cross-industry research helped us to break down the essential components of these new ecosystems. We now understand that many of the existing multi-chain business designs share common elements. These building blocks are distinct from traditional single-chain models; and they are essential to creating outsized value, transforming the consumer experience, and personalizing broad, complicated markets for consumers.

Remarkably, companies as different as Airbnb, Uber, Google, and Amazon all share the same business design elements. These are the three building blocks of multi-chain business design:

- Magnetic experience
- Intelligent hub
- Personalized marketplace

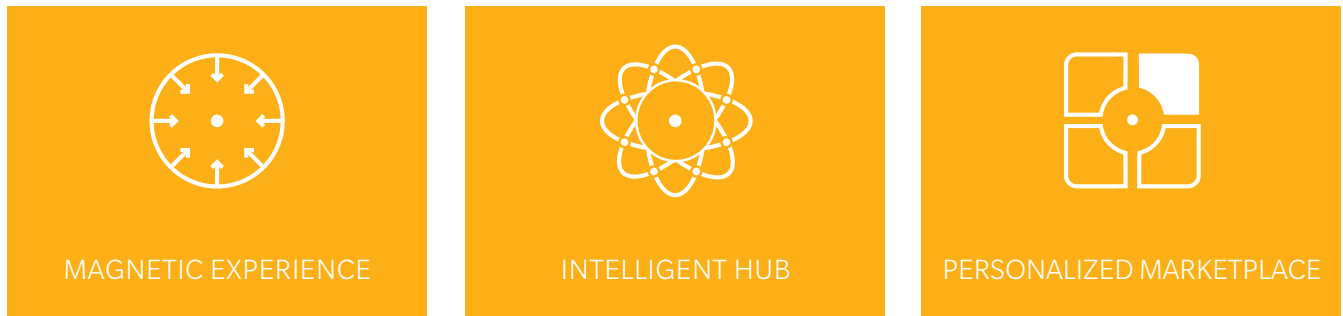
(See Figure 6.)

Magnetic experience is about anticipating consumer needs, simplifying market complexity, and bringing the market to the consumer in highly relevant terms. It depends on a deep understanding of the consumer and real-time contextual knowledge about people's daily lives. Consider how much Facebook, Google, Apple, and Amazon know about consumers. These companies are masters of smart clouds, Big Data, superfast effective algorithms, machine learning, social networks, behavioral psychology, and personalized insights. (Shopping for sunscreen? I can hold some for you at Walgreens, as I see you have a prescription to pick up there. Here are the driving directions to Walgreens. Note the alternative route – construction is snarling traffic around your office.)

In the health and wellness space, it is about demystifying and simplifying the complex health system for the consumer: navigating the fragmentation, clarifying provider value, making sense of true costs, and, most importantly, helping consumers make the best health decisions for themselves and their families. It means knowing how consumer preferences and needs change based on real-time life circumstances (like a new job) and type of health decision (such as a convenient care visit, emergency care, or life-changing diagnosis). Think mobile concierge, backed up by WebMD and Watson, with an Amazon-like shopping marketplace. That's a far cry from today's consumer experience.

The intelligent hub, or platform, acts as the traffic director for constantly changing information. Hubs are cloud-based, and many are open and interoperable with other critical sources of information.

**FIGURE 6: THREE ESSENTIAL ELEMENTS IN MULTI-CHAIN DESIGN**



- Personalized, contextual, intuitive
- Curated (your way)
- Always-on
- Preference / life-circumstance sensitive
- Optimized (value, convenience, etc.)
- Social (family, friends, peer group)
- Seamless across channels

- Partner and supplier analytics
- Consumer knowledge base
- Context engine (traffic, events, weather, etc.)
- Predictive consumer-behavior engine
- Real-time life-decision rules
- Decision archetype models

- Health/wellness products and services
- Supplier management/contracts
- Yardstick of excellence (consumer ratings)
- Consumer terms - transparency, availability, experience, service guarantees
- Access to innovation
- Pricing and packaging

The intelligent hub aggregates massive amounts of information about consumers, suppliers, trends, buying patterns, innovation, real-world events, etc., and then uses data science and cognitive computing to optimize and personalize markets and consumer experiences. The intelligent hub broadens the business intent from transactional simplicity and convenience to personal relevance and value. Imagine information coming from tens of millions of consumers and across millions of suppliers and services providers; the intelligent hub maintains this extensive information ecosystem, creates the rules and insights, and drives personalized curation in real time for consumer and suppliers.

Apple, Amazon, and Airbnb exemplify the power of personalized markets. Personalized markets blend broad access (lots of “inventory” that spans the health, wellness, lifestyle, finance, and risk world) with the power of the intelligent hub. Together they make the vast market small and relevant. We cannot imagine Amazon without Walmart-scale merchandise and services, Uber without a driver within five minutes, Airbnb without available

accommodations, or Apple without apps and media. The personalized marketplace is at the leading edge of supply chain innovation. In healthcare, personalization will reset the marketplace framework, stretching the market to reflect consumers’ better living needs, requiring value transparency, creating new access models, championing innovative alternatives, and reflecting consumer experiences ●



Let's look at four of the ecosystems that are the furthest along and gaining traction:

I

RETAIL HEALTHY LIVING HUB

II

CHRONIC CARE HUB

III

CONSUMER MARKET HUB

IV

PRECISION AND PERSONALIZED MEDICINE HUB

# ECOSYSTEM I

## RETAIL HEALTHY LIVING HUB

**HEALTHCARE'S** multi-chain model is most visible in retail pharmacy stores. Walgreens, Walmart, CVS, and Rite Aid (soon to be part of Walgreens) are moving to wellness-store formats: re-merchandising with health products, opening convenient-care clinics, offering diagnostic services, and exploring telehealth, health coaching, biometric monitoring, and better-living rewards.

Extending far beyond in-store flu shots, these national retailers are focused on becoming the indispensable better-living hubs for millions of Americans. To achieve this, they are building a network of partnerships that solve the consumer's hassle map. Rite Aid offers in-store coaching services and is partnering with local physician groups across the country, integrating coaching and medication management into the primary care offering. Rite Aid is always "on" and available, and it has the most success with poly-chronic consumers whose needs extend well beyond the traditional sick-care model.

Walgreens, meanwhile, is partnering with Qualcomm, Samsung, MDLive, and WebMD. Walgreens has a deep understanding of consumer health and wellness needs and is working to become the health and better-living hub for neighborhoods across America. The Walgreens design transforms convenient care with (almost) no-waiting diagnostics, integrated pharmacy services, and mobile/biometric services that keep the retailer connected to its customers in their daily living. Like Rite Aid and CVS, Walgreens is redesigning its stores and moving to a wellness format. Between in-store products and services, mobile and web, Walgreens is rapidly creating a personalized marketplace for its customers.

Meanwhile, all eyes are on Walmart because of its scale and brand position. After careful study of the market and many pilot programs over the past few years, Walmart is now committed to building a national in-store network of primary care practices with a full suite of consumer health and wellness services. Walmart understands the scope of the consumer health and wellness opportunity and is thinking well beyond the scope of basic primary care.

These national retailers are converging health, wellness, pharmacy, convenience, diagnostics, and coaching into a consumer friendly, high-trust experience with a strong mobile component. They are improving the value proposition (at a lower cost) and creating a vastly better consumer experience. (See Figure 7.) As Walgreens reaches national scale with its new business design and store format, it will develop knowledge and insights across hundreds of millions of consumer experiences – a new knowledge base never before in the market. Imagine what Walgreens will learn.

With the new partnership hubs in place and a receptive consumer market, America's retail pharmacies are cementing their place as the preferred stay-healthy hub in your neighborhood ●



# ECOSYSTEM II

# CHRONIC

# CARE HUB

**OUR** sick-care supply chain model is geared to getting patients back on their feet. Hospitals, emergency departments, physicians, and care teams are experts at patient triage, diagnostics, and treatment. This is the backbone of the US healthcare system to date; but that's about to change.

Chronic care hub innovators understand the key to helping people live better with chronic disease is proactive engagement and prevention. And that passive biometric monitoring and real-time interactions are game-changers. Our industry research suggests wearable health monitoring is coming to scale; analysts forecast the sale of more than 100 million wearable health devices in 2016. And not a minute too soon: people with chronic disease represent more than 60 percent of healthcare costs and the current sick-care model is just not getting the job done. Imagine how much better consumers with chronic disease would fare if their "treatment" plan included active living support. (Remember Fred?) What if a big portion of their sick-care events could be prevented or avoided?

That's the goal of new "chronic care hub" ecosystems. (See [Figure 8.](#)) Take, for example, Livongo Health, which focuses on people with diabetes. Livongo's smart devices act as a blood glucose monitor, but also transmit glucose readings, activity information (such as steps), and details about how a person is feeling to the company's smart cloud. There, raw data can be analyzed and turned into actionable information, which is communicated to the consumer either via the smart device, personalized text messages, or Livongo's team of Certified Diabetes Educators. It is highly personalized, connected in real time, and "on" 24 hours a day. Plus, the decision-making process

gets smarter and more personalized the longer someone participates in the program.

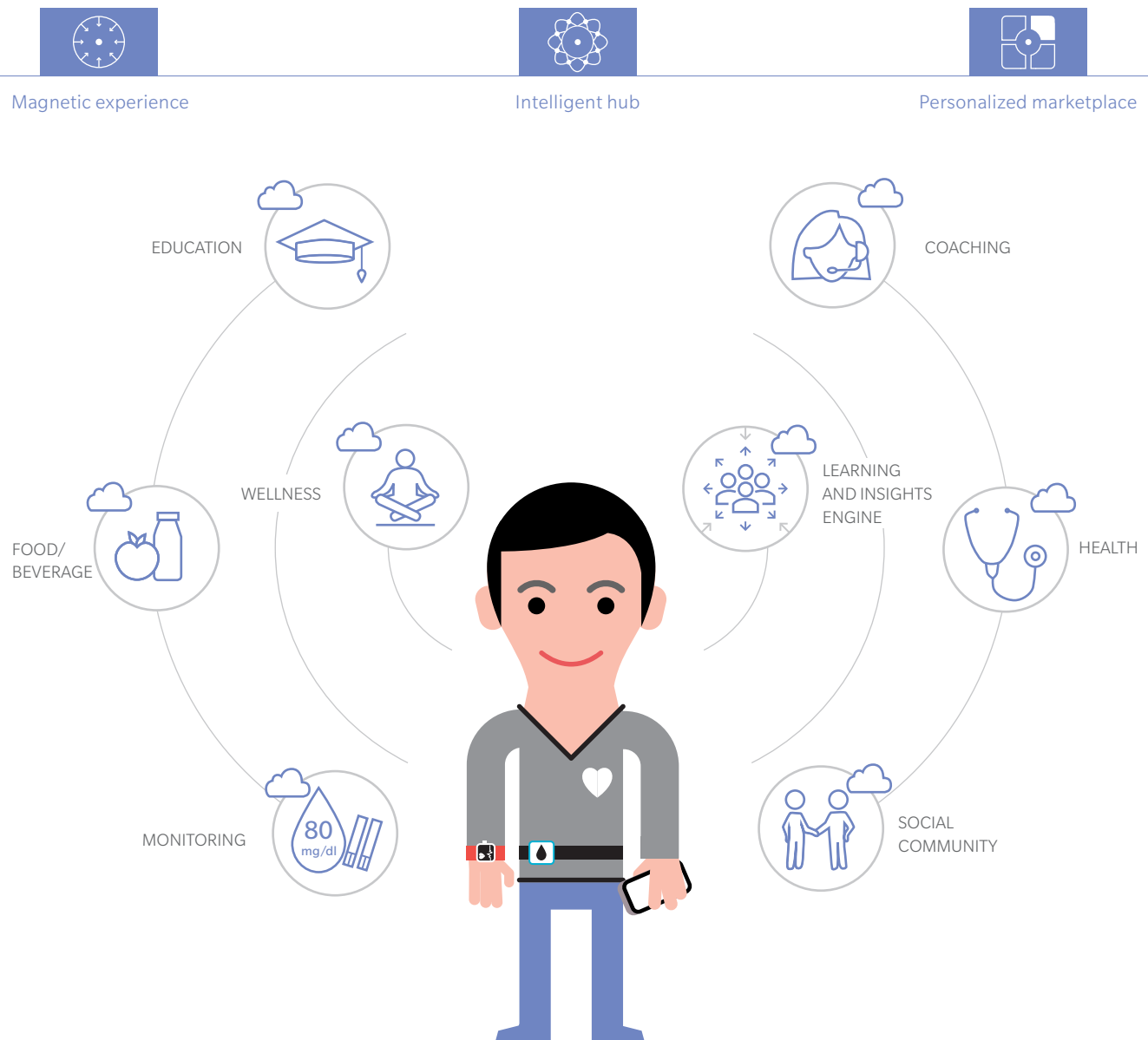
The company's cloud is collecting literally millions of data points across all types of people with diabetes, and the data-science team and artificial intelligence engine are regularly discovering new insights. Livongo is building high-trust relationships with consumers and helping them prevent a trip to the emergency room or a diabetic seizure through its intelligent hub and multi-channel consumer experience. Livongo is also learning about how consumer behavior, food habits, social networks, physical activity, and depression factor into consumer success.

Livongo is learning at an accelerated rate how to help consumers live better with diabetes, and its better-living knowledge base has easily eclipsed even the largest provider practices. More importantly, the company is pioneering the new frontier of high-trust engagement with consumers – establishing itself as a partner on the journey to better living with diabetes. The scope of the offering and the contextual relationship between the consumer and Livongo define the new frontier; both are essential components in the recipe for making meaningful progress on chronic disease management.

Propellor, Medtronic, Teva, Lilly, and others have also launched better-living ecosystems for congestive heart failure, obesity, asthma, and a number of neurological disorders. Early indications suggest that these new multi-chain models will quickly become the consumer's go-to source for help, leading to big improvements in health and the near elimination of avoidable acute events •



**FIGURE 8: CHRONIC CARE HUB**



1

EASY AND CONVENIENT:  
PASSIVE MONITORING/  
STREAMLINED SUPPLIES

2

ACTIVE COACHING: BETTER  
ENGAGEMENT – NEVER ALONE

3

PREDICTIVE/PREVENTIVE:  
INSIGHTS-POWERED  
INTERACTIONS STOP  
FLARE-UPS

4

PERSONALIZED LEARNING:  
CONTEXTUAL AND  
EVENT-DRIVEN PROMPTS FOR  
DISEASE CONTROL

# ECOSYSTEM III

# CONSUMER

# MARKET HUB

**THE** healthcare system has cut consumers out of personalized decision making and value-based shopping. Consumers are fed up and tired of living in a “buyer-beware” healthcare market with unacceptable levels of variation and little to no value transparency. They are starved for the models they experience in other parts of their lives (Yelp, Amazon Prime, Uber, etc.). It’s time to take the blinders off and invite health and wellness providers to compete in an open, transparent marketplace with consumer-friendly economic units and performance measurements.

In other industries, consumer demand has proven to be the most powerful force in shaping markets, sharpening competition, and dramatically improving value. In healthcare, upstarts like Vitals, Welltok and Zest have been chipping away at this problem for a few years and now have high-value, second-generation consumer products (apps, mostly) in the market. This new generation of apps will make health and wellness shopping almost as easy as ordering through Amazon Prime, while helping consumers stretch their healthcare dollars.

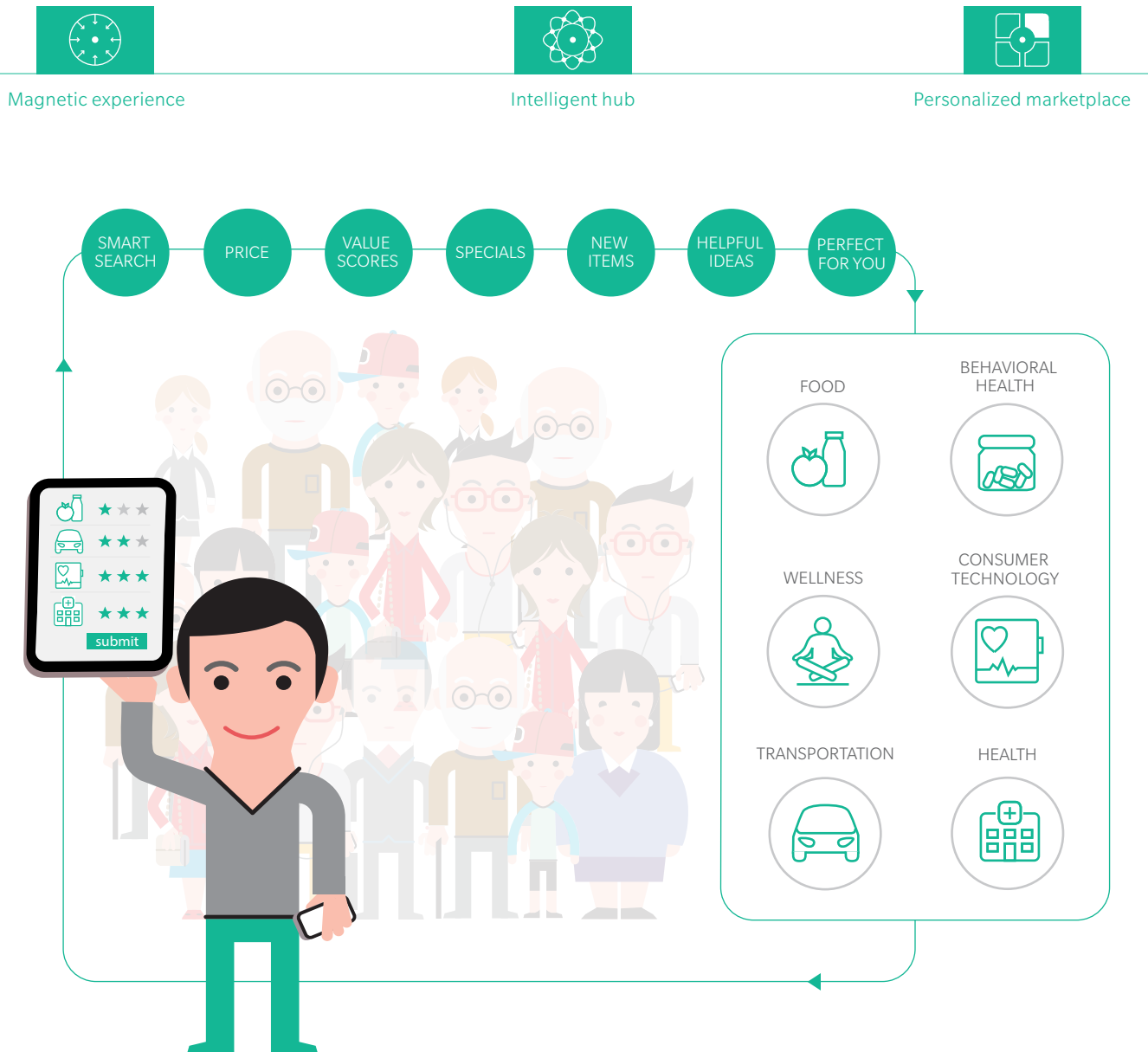
These companies recognize that consumer decisions vary significantly by life circumstance (budget, benefits, mindset, etc.), but also by type of healthcare service (routine, convenient, urgent or life-threatening). One day Fred is employed and looking for routine care and the next day he is on long-term disability and facing a life-threatening new diagnosis. (See Figure 9.) Decision rules must work in real-time, contemplate the nature of the health decision and apply consumer behavioral insights to drive personalized recommendations.

Sounds great, but today’s PPOs were never designed to operate as a consumer market. And health plan provider networks are deeply embedded into incumbent business designs, making it difficult for the new generation of consumer tech companies to build the Amazon or Uber of health and wellness. Or does it?

Plan sponsors are shifting financial responsibility to consumers faster than they have the ability to pay; creating an expanding “responsibility / affordability gap” and leaving consumers without alternatives. Consumer motivation is sky-high. Where should consumer-tech companies start? How about convenient care? Retail pharmacies and mobile health companies are looking to play now. And not only do they welcome the opportunity to be price/value transparent, they also want to compete on wait-times and consumer feedback.

Can convenient care services meet the “consumer relevance” threshold? Most primary care physicians say nearly 80 percent of their patient visits do not require a physician and could be seen in a retail setting (or telehealth). Imagine the impact of starting with a fully transparent consumer market for convenient care services. With just 1½ visits per-person per-year, this new Amazon-like marketplace could create big value across 450 million health shopping experiences ●

**FIGURE 9: CONSUMER MARKET HUB**



- |  |  |   |   |
|--|--|---|---|
| <p><b>1</b></p> <p>TRANSPARENT AND ACCESSIBLE: COMPARATIVE SHOPPING; ONE-CLICK SCHEDULING / PURCHASE</p> | <p><b>2</b></p> <p>PERSONALIZED AND INTUITIVE: OPTIMIZED DECISIONS WITH REAL-TIME CONSUMER PREFERENCES</p> | <p><b>3</b></p> <p>ADVISORY: ANTICIPATES MULTI-STEP HEALTH / LIFE EVENTS; IMPROVES TOTAL CONSUMER VALUE</p> | <p><b>4</b></p> <p>NEW ECONOMY: CONSUMERS WIN THROUGH SMART SHOPPING AND IMPROVED HEALTH ENGAGEMENT</p> |
|--|--|---|---|

# ECOSYSTEM IV

# PRECISION AND PERSONALIZED MEDICINE HUB

**PRECISION** medicine is already redefining how we think about diagnostics, disease understanding, and prevention. This new ecosystem begins with data science and lower-cost, highly accurate sequencing (genome, microbiome, and environment). Big Data players like IBM Watson and Google have been scanning millions of pages of research and clinical trials from around the globe to bring new understanding to major diseases. Imagine your personal physician being supported by IBM Watson and cutting-edge disease understanding at the point of care. Oh, and it's all personalized to your molecular archetype. (See Figure 10.)

The idea of applying global insights – developed across millions of patient encounters, research sites, and real-life patient decisions/actions – to individual patients at the point of care is game changing. The new generation of precision medicine, big data, and data science teams are giving personalized medicine a big boost. But this is just the beginning: As whole-genome sequencing costs drop from \$10,000 per test to less than \$1,000, the knowledge base of gene maps to diseases will expand exponentially. Companies like Human Longevity have already created sequence-based profiles for more than 10,000 consumers, promising a vastly more informed better-living life plan.

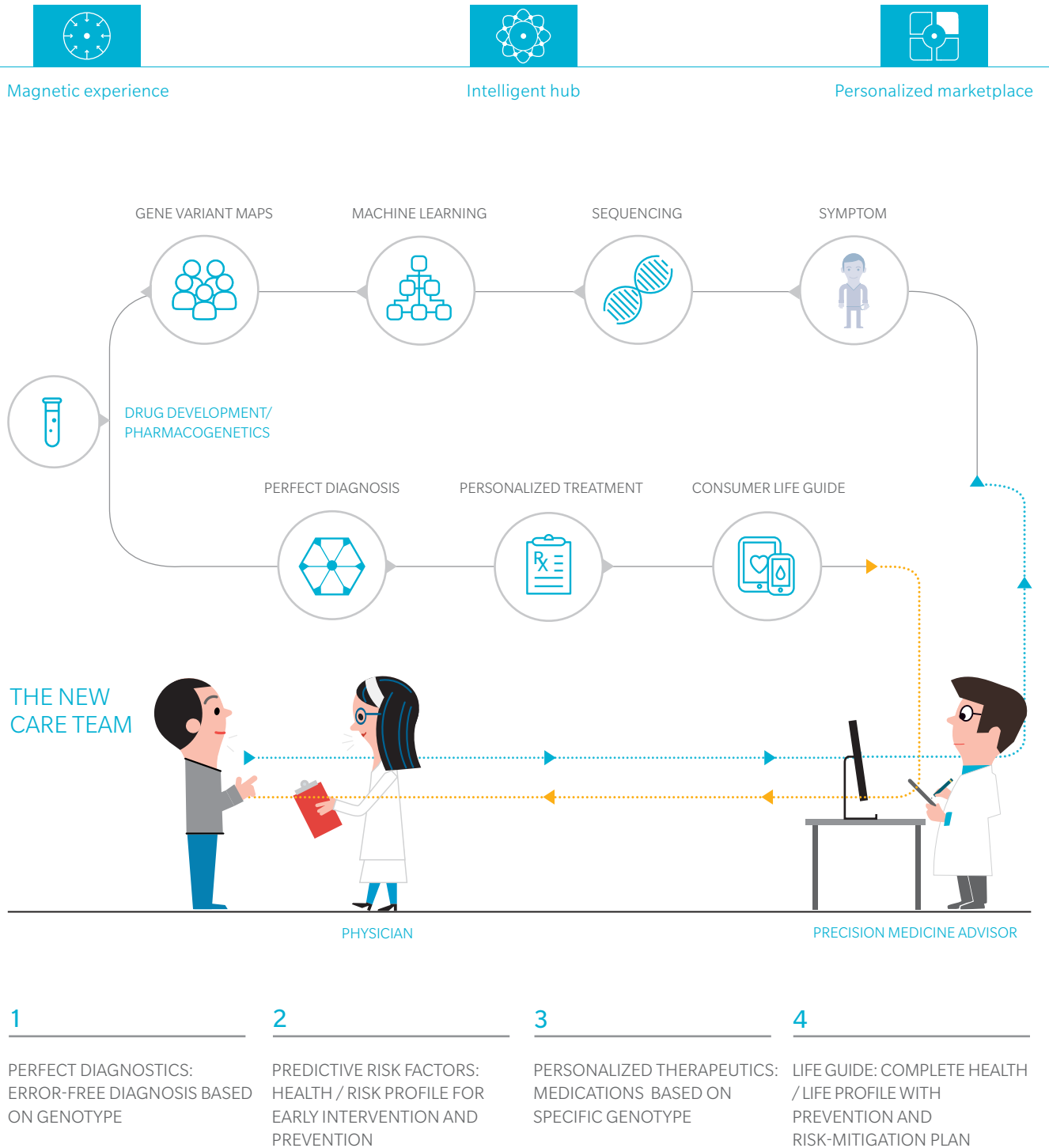
Thanks to partnerships like the one between NantHealth and Allscripts, or the one between IBM Watson and Welltok, the Big Data and point-of-care software worlds are converging, creating the foundation for accelerated real-time knowledge deployment. Over the past five years, more than two dozen new genomics companies have emerged. Players like NantHealth are focused on genomic sequencing for cancer care; Human Longevity has targeted prevention and better living; Hudson Al-

pha's new start-up Envision is focused on rare and undiagnosed diseases; while Google-backed 23andMe is driving the direct to consumer market.

The rise of personalized medicine hubs has the potential to be the most disruptive mega-trend on the horizon. Imagine: Location independence; as diagnostics and personalized treatment plans are derived from genomic analysis, clinic-based care models will be less important and augmented by web-based coaching. Preventative life plans; as more consumers complete their whole-genome profile, they will be armed with a powerful life plan to help them avoid or prevent the development of disease. And personalized health; consumers with genomic profiles will better understand what drugs/nutraceuticals work for them, and the best wellness choices. For the first time, consumers will have the knowledge advantage.

It is all about to get faster, cheaper, better; and then faster, cheaper, better again. As precision medicine is mainstreamed, consumers will expect error-free diagnostics and personalized therapeutics – from a drop of blood to personalized medicine at your front door. The convergence of genomics, microbiomics, and epigenetics will soon lead to the next generation of preventions and treatments; enabling dramatic advances in personalized markets ●

**FIGURE 10: PRECISION AND PERSONALIZED MEDICINE HUB**



# THE GAME PLAN FOR INCUMBENTS

**THESE** four ecosystems, and others like them, are exerting powerful pressure on the incumbents of Health Market 1.0, pushing both convergence and the expansion of the market well beyond sick care. The consumer tech, Big Data, retail pharmacy, and precision medicine industries understand the scale of the opportunity and are on a trajectory to unlock trillions of dollars of new value. At the same time, these players are acutely aware that their pathway to market includes the incumbents who currently own sick care and benefits dollars, and so they are eager to collaborate.

Incumbents looking for outsized growth, powerful new consumer relationships, and highly differentiated value (thanks to expanded products and services) must rethink their business designs and embrace these new partners. Partnering will enable a broader ecosystem capable of outperforming its individual components. Health plans, health systems, and pharmaceutical and medical device companies all have the opportunity to either lead or be high-value participants in emerging ecosystems.

Most leadership teams have an informed view of the risk and economic profile of defending the incumbent model into the future. We are sharing a view of the alternative strategy: playing offense within Health Market 2.0. The first step in that playbook is taking a hard look at the broader marketplace and then re-examining your own built-in advantages and capabilities. Only then can you understand how the new business designs will play going forward; and only then can you develop a strategic plan for how your strengths could be parlayed into a new ecosystem.

## HEALTH PLANS

Health plans are ideally positioned to reinvent the traditional supply chain model. They are already experts in supply chain contracting and administration, and they have the economic clout to drive the new marketplace. Health plans can require suppliers to be transparent in order to participate in the new marketplace. They can expand the spectrum of products and services to meet consumer needs; and they are well positioned to accelerate the inclusion of innovative alternatives like mobile health and better-living ecosystems.

Health plans could easily open up arbitrary benefits-based borders to bring the world of health, wellness, and better living to consumers. Which companies will be first to market with an offering that is less expensive, provides easier access, and supports consumers in better living? The answer will depend on how well a company is able to execute the following:

- Define value transparency, including price, outcomes, quality metrics, consumer-experience ratings, and a series of real-time convenience variables, such as wait time. And make it a requirement of the marketplace.
- Move from contracted provider networks to personalized consumer marketplaces, significantly broadening the inventory of products and services to match consumer needs.
- Simplify and integrate consumer economics, making it easy and fun for people to blend benefits dollars with rewards, cash, and credit.
- Create the integrated rewards marketplace and empower consumers to get more for their healthcare dollar through demonstrated better health.

- Accelerate the availability and integration of innovative solutions like convenient-care clinics, new urgent/triage modalities, telehealth, better-living ecosystems, and precision medicine.
- Partner with and pay providers for the care-model redesign work (population, disease, procedures) required to break the fragmented, transactional, sick-care factory model.

Health plans have always had a relationship with the “member” or consumer – but have not yet created the demand-side models that empower optimized consumer decision making. Health plans have an amazing opportunity to rethink product design and consumer experience from the consumers’ point-of-view, as they arm consumers with powerful new decision-making apps and help them make better health decisions. All of which will help the consumer get more for their healthcare dollar within the plan year.

So which will it be: commodity marketplace with low margins and scale-based competition, or robust growth runway with improving margins and a new center of strategic control?

## PROVIDERS

Like payers, providers have the opportunity to reinvent the supply chain. In their case, it will be by embracing the integration of new care models, opening up access, and leading the way on value transparency. Providers also have the opportunity to accelerate the movement from inpatient to mobile health by embracing new technology-enabled business designs that leverage medical devices, mobile health, biometric monitoring, smart blood glucose meters, smart inhalers, and related consumer technologies. If they seize these opportunities, providers have the ability to dramatically

---

*Incumbents looking for outsized growth must rethink their business designs and embrace new partners.*

---

improve the sick-care model while establishing much stronger consumer relationships.

The provider’s path has significant risk and challenges, however. These include the existing inpatient and specialist-based profit model, high-capital intensity and fixed costs, and a clinic-based business model where change is costly and inherently slow. The route to Health Market 2.0 is exacerbated by fragmentation and complicated governance models.

To make the transition from Health Market 1.0 to 2.0, providers must embrace a consumer-centered approach and be ready to reorganize into new ecosystems that transform the value equation and meet consumers on their terms. The new provider systems will integrate services across a care continuum that includes inpatient, ambulatory centers, retail locations, and the home or the smart phone. To achieve this transition and realize the full potential of the opportunity, the following actions should be considered:

- Redesign the consumer experience, starting with the consumer's hassle map. Rethink access, hours of operation, engagement, personalization, common experience across touch points, health coordination, outreach, and life beyond sick care.
- Lead the way on transparency by openly sharing price, value, outcomes, and customer ratings in easy-to-understand consumer terms. Start with convenient care, and then quickly move to procedural care. Compete on value, not position, in the payer network.
- Redesign care models and the care continuum for needs-specific populations and people with specific health issues. Think holistically and converge access, assessment, treatment, return to health, and better living.
- Open up care models and clinic boundaries. Integrate telehealth, retail clinics, and call centers to change the game on access and engagement.
- Extend the patient relationship into the living room. Partner with new "better living with chronic disease" ecosystems. Move to a multi-chain business design and bring real-time biometric monitoring, prediction/prevention, smart cloud, and vastly better consumer relationships into the model.
- Lead the movement to near-perfect patient diagnostics and personalized treatment plans by partnering with Big Data/artificial intelligence players and advanced diagnostic organizations. Actively explore precision medicine in key areas of focus.

Leading provider organizations have already demonstrated – through new population health and value-based care models – the ability to improve patient value by more than 25 percent. At the same time, they are unlocking the next wave

of value by fueling the movement of healthcare services to ambulatory, home, and mobile settings, while embracing powerful new predictive and preventative technologies.

So which is it going to be: protect the current franchise and survive market contraction and margin headwinds, or develop (through partnerships) new value-based ecosystems, creating the next generation of sustainable growth runways where best consumer value wins the day?

## PHARMACEUTICAL AND MEDICAL DEVICES

While pharmaceutical and medical device companies may not appear to have much in common, both organizations are focused on defined diseases or clinical problems, both win through provider adoption, and both require health plan reimbursement to make their economics work. And both understand their business models are changing with the rise of consumerism and the shift to value-based payments.

As providers and health plans focus on improving clinical value and outcomes, business models for these companies are shifting from the pill or the device to the disease or clinical problem, and new solutions are being designed accordingly. Without change, pharmaceutical and device organizations run the risk of being commoditized or shifted down the food chain as the market places a premium on total solutions for the management of diseases such as diabetes, asthma, and Parkinson's.

Pharmaceutical and medical device companies have two great opportunities to broaden their growth runways and re-energize



their market positions. The first is to double-down on the science and technology, and bring the next generation of game-changing therapeutics or devices to market. The second is to become a consumer disease manager, by redesigning business models around consumers with specific health profiles. These options could serve to reduce fragmentation, bridge health and wellness, and help consumers live better. And they would mean a step up in role and a shift into understanding the economics of disease.

The convergence of technology and science is leading to a new generation of solutions. Miniature implantable devices capable of biometric monitoring and wireless communication with smart clouds are changing how the industry thinks about managing neurological or circulatory diseases. At the same time, advanced-sequencing (genome, biome, etc.) businesses powered by data science teams and cognitive computing are enabling the development of personalized therapeutics. Consequently, pharmaceutical and medical device companies have the opportunity to create new science/tech ecosystems. Imagine radically changing the efficacy paradigm through personalized medicine, or mainstreaming next-generation ecosystems that combine modulation, diagnostics, and real-time monitoring in a single device.

Pills and devices have played an important role in disease management and clinical treatment; but for most consumers, the pill or the device is a small part of living with a chronic disease or long-term medical condition. Consumer disease ecosystems start by walking in the consumer's shoes and understanding how they experience life with their unique health profile. (Do

they struggle with affordability? Do they really understand their disease? Do they get depressed? Can they navigate the system? Do they have the right care team? Is their productivity at work at risk?) And then rethinking the ecosystem to help the consumer live better, improve value, and bend trends.

Early evidence suggests that consumer disease ecosystems could improve value by more than 15 percent and significantly boost the consumer's quality of life. To start on the path of developing a consumer disease ecosystem, pharmaceutical and medical device companies should consider the following actions:

- Identify high-impact disease categories where consumer value could be dramatically improved.
- Evaluate pill or device assets that could play a meaningful role in a new disease ecosystem.
- Design the disease ecosystem from the consumer-in, and redefine or unlock value.
- Evaluate key partners required to build the ecosystem (consumer tech, data science, behavior/engagement).
- Launch a series of consumer-based disease ecosystems that transform the value model and how consumers live with their disease.

The one-of-a-kind therapeutic or unequalled device will always be a big winner, but what about the rest of the portfolio? Consumer technologies are converging with devices and pills and the value game is changing.

So which will it be: margin compression and a limited role in someone else's ecosystem? Or a lead role in a consumer disease ecosystem with a new growth runway? ●

# TOWARD THE FUTURE

# THE 2.0 LEADERSHIP

# CHALLENGE

**WHEN** markets go through big, deep-seated changes, the track record for incumbents is not encouraging. In fact, it's downright troubling. It doesn't matter whether you look to newspapers, steel companies, computer companies (through numerous generations), department stores, the music industry, or dozens of other industries, as much as 80 percent of yesterday's economic champions didn't survive to the next stage of the industry's evolution.

With all due respect to these prior transitions, it's hard to find one that is as large-scale, multi-dimensional, and complex as the one that has already started in the health market. But we do not have to accept that high failure rate as an inexorable given. If companies allow themselves to see clearly, if they start early, and if they commit to engaging both the consumer and their own employees, they can dramatically change the expected outcome.

The leadership challenge is not just about navigating that transition, but knowing how to initiate it. A good place to begin is tackling this set of key questions – questions whose answers will literally determine who tomorrow's winners will be:

- Does our organization really “get” the consumer?
- Do we know, in detail, our consumers' hassle maps?
  - Overall?
  - By specific issue?
  - By health circumstance?
  - In getting price information or reliable ratings?
  - By living situation?
- What dots do we have to connect to solve the hassle map in a non-incremental, elegant way?
- How effective are we at partnering?
  - With other health care players?
  - With players outside our industry?
- Have we built a platform, a process, or an intelligent hub to make it easy for others to partner with us?
- Are we spending most of our energy playing defense for yesterday's business model? What is our defense-offense ratio?
  - 90/10?
  - 70/30?
  - 50/50?
- As an organization, how fast are we?
- How external is our focus? Does our thinking start and stop with sick care?
- What's our relative organizational-intelligence and rate of learning about consumers?
- Are we translating our consumer experience into knowledge and applied innovation?

Whether a company will find success in Health Market 2.0 will depend greatly on how well it prepares for and responds to these questions. And whether incumbents figure out their place in the new world or consumer-tech players topple healthcare – as they have many other industries. Either way the outcome will be vastly better consumer value and a much bigger marketplace – driven by unrelenting consumer demand.



FRED IS READY. AND HE CAN'T WAIT.

## ABOUT OLIVER WYMAN

Oliver Wyman is a global leader in management consulting. With offices in 50+ cities across 25 countries, Oliver Wyman combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation. The firm's 3,000 professionals help clients optimize their business, improve their operations and risk profile, and accelerate their organizational performance to seize the most attractive opportunities. Oliver Wyman is a wholly owned subsidiary of Marsh & McLennan Companies [NYSE: MMC], a global team of professional services companies offering clients advice and solutions in the areas of risk, strategy, and human capital. With 52,000 employees worldwide and annual revenue exceeding \$10 billion, Marsh & McLennan Companies is also the parent company of Marsh, a global leader in insurance broking and risk management; Guy Carpenter, a global leader in risk and reinsurance intermediary services; and Mercer, a global leader in human resource consulting and related services.

Oliver Wyman's Health & Life Sciences practice serves clients in the pharmaceutical, biotechnology, medical devices, provider, and payer sectors with strategic, operational, and organizational advice. Deep healthcare knowledge and capabilities allow the practice to deliver fact-based solutions.

Oliver Wyman launched the Health Innovation Center (OWHIC) in 2011 dedicated to promoting positive change in healthcare.

OWHIC champions innovation by disseminating proven innovations; envisioning market-based solutions to today's and tomorrow's challenges; and establishing a cross-industry community of thought-leaders to share and shape ideas.

For the latest on the business of transforming healthcare, visit Oliver Wyman Health digital platform at [health.oliverwyman.com](http://health.oliverwyman.com).

For more information, visit [www.oliverwyman.com](http://www.oliverwyman.com).

Follow Oliver Wyman on Twitter @[OliverWyman](https://twitter.com/OliverWyman).

Copyright © 2016 Oliver Wyman

All rights reserved. This report may not be reproduced or redistributed, in whole or in part, without the written permission of Oliver Wyman and Oliver Wyman accepts no liability whatsoever for the actions of third parties in this respect.

The information and opinions in this report were prepared by Oliver Wyman. This report is not investment advice and should not be relied on for such advice or as a substitute for consultation with professional accountants, tax, legal or financial advisors. Oliver Wyman has made every effort to use reliable, up-to-date and comprehensive information and analysis, but all information is provided without warranty of any kind, express or implied. Oliver Wyman disclaims any responsibility to update the information or conclusions in this report. Oliver Wyman accepts no liability for any loss arising from any action taken or refrained from as a result of information contained in this report or any reports or sources of information referred to herein, or for any consequential, special or similar damages even if advised of the possibility of such damages. The report is not an offer to buy or sell securities or a solicitation of an offer to buy or sell securities. This report may not be sold without the written consent of Oliver Wyman.