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The Digital Imperative

The imperative for a consumer-centric,
digitally enabled health ecosystem

Introduction

The evidence is abundant: traditional health care is not working. Rising costs, misaligned incentives, and fragmented technology and data are plaguing the US health care system. Still, lacking disruptive competitive pressures, health plans, providers, and other stakeholders traditionally have not been incentivized to create seamless, meaningful, and engaging experiences for consumers.

But these dynamics are changing, driven by: 1) heightened consumer expectations; and 2) deep-pocketed entrants from outside of the health care industry that are challenging the status quo. These non-traditional entrants are free of legacy constraints and have a compelling financial incentive, the technology know-how, and trusted brands to own the customer and disrupt health care from the outside.

The entire health care ecosystem faces a clear, but difficult, choice: evolve and thrive or be disrupted and lose market share to outside competitors. Health plans are responding by ratcheting-up vertical integration, but acquisitions and alliances alone are not enough to repair a broken system and counter new competitive threats. Health plans need to create a consumer-centric, digitally enabled, and fully integrated health ecosystems to meet rising consumer expectations. By building an integrated health ecosystem, health plans will:

- Improve outcomes and health for consumers
- Bend the cost curve
- Improve operating and financial performance
- Carve a meaningful place in the future of health care

Figure 1. Numbers show US health care is not working



System

Poor performance—
Relative to comparable countries, US life expectancy is three years less and hospitable admissions for preventable diseases are more frequent.¹

High-cost patients—
Over 70 percent of US health care spend is attributable to chronic and complex patients who make up less than 30 percent of the population.²



Provider

Physician shortage—
By 2025, US demand for physicians will exceed supply by a range of 46,000 to 90,000.³

More errors—
The United States has higher rates of medical, medication, and lab errors than comparable countries.⁴



Consumer

Affordability—
The share of people with health insurance who say it is difficult to afford has increased from 27 percent to 37 percent since 2015.⁵

Patient engagement—
One-fifth of patients are readmitted within 30 days of hospitalization, mostly because they are unable to manage their care afterwards.⁶



Cost

Rising costs—
Costs have risen by 24 percent for employers since 2001 and health care costs are expected to increase by 5.5 percent in 2018.⁷

What health care consumers want:

An integrated digital health ecosystem that provides greater access, enables maximum well-being, and lowers costs

Health care consumers are speaking up, and loudly. They want a health care ecosystem that provides greater access to providers and treatments, enables maximum individual well-being, and reduces costs. Digital solutions are laying the groundwork to deliver on consumers' heightened expectations.

Consumers are demanding a better health experience and ownership of their data. Based on Deloitte's survey of consumer priorities in health care, they have a clear hierarchy of needs when it comes to health care, and digital tools are a way to effectively meet their needs (figure 2).

Figure 2. Health care consumers' priorities

What do today's health care consumers want?

Ownership of their health data, all in one place and transferable across the ecosystem



Personalized care and health services that serve individual needs and create engaging experiences



Seamless and efficient end-to-end journeys that are intuitive and digitally-enabled



Greater access to and choice of health care products and services in an easily accessible and centralized location



Affordability and transparency into the costs of health care services and products



How can digital deliver?



Personal health records securely owned by the consumer and interoperable across providers and tools



Analytics-driven and AI-enabled tools and solutions to deliver personalized health recommendations and treatments



Interoperable data spanning the health ecosystem to enable real-time information access across all consumer touch points



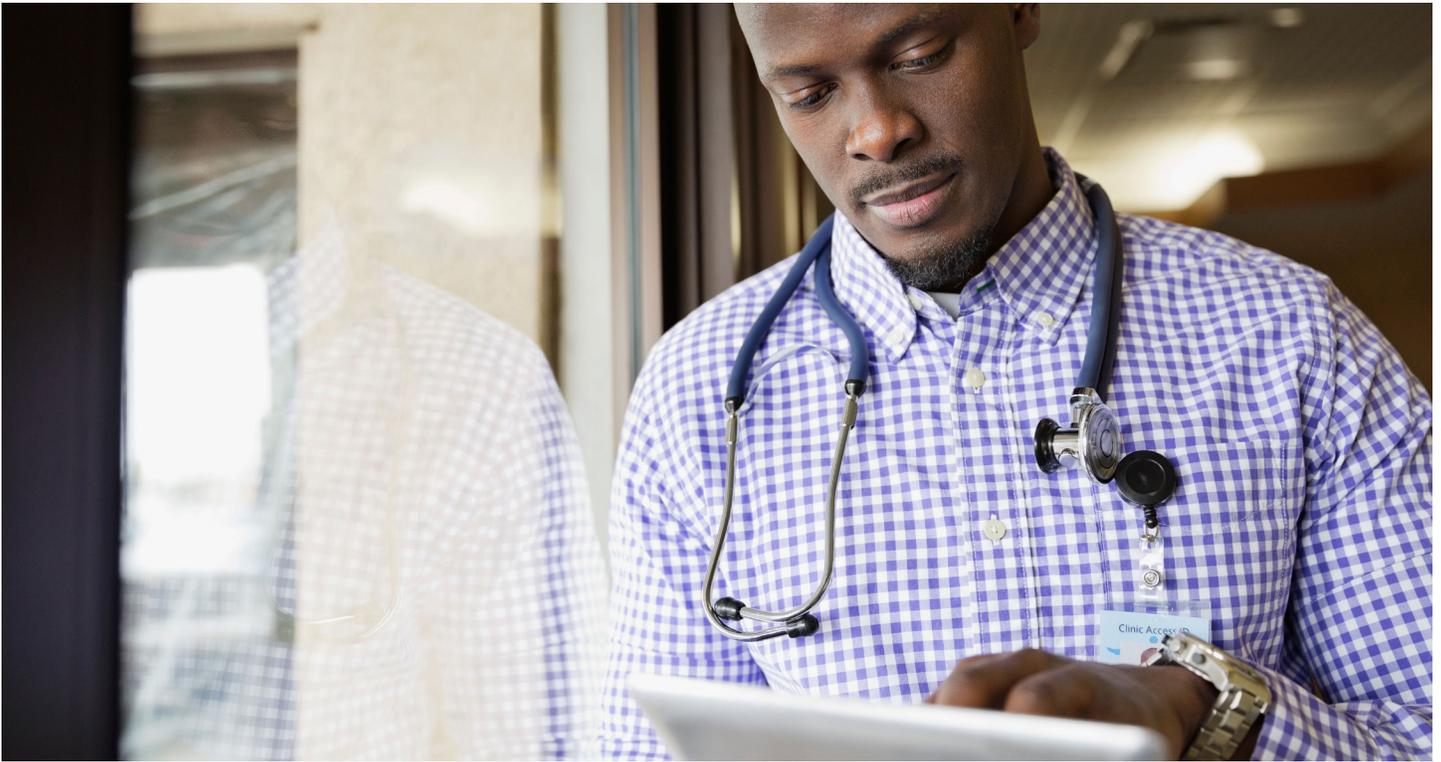
Integrated insurance platform with individualized health care products and plans



Simple provider search to evaluate cost and quality of care, and new digital methods to pay for the cost of care

Source: Deloitte's 2016 Consumers Priorities in Health Care Survey.

For health care providers, digital is key to improving quality of care and delivering more care by removing friction in the system and serving as a "force-extender" for providers. Clinicians want to focus on delivering high-quality care to their patients and digital solutions can help integrate/augment their workflow while reducing time spent on administrative tasks (e.g., handling patient data, managing referrals and paperwork). Providers are open to using digital dashboards and tools if they can be shown to help improve outcomes, save time, and manage costs.



Employers view health plan digital platforms as key differentiators. For plan sponsors and benefits managers, the buying decision is driven by:

1. Health care cost (plan sponsor spend)
2. The integrated “package” of programs and tools to drive engagement

A breakthrough digital platform with true integration across self-owned assets and strategic partnerships is a way for health plans to achieve these two things.

Despite digital's potential, few established health care industry players—including health plans—are effectively leveraging digital technology in an integrated way. Consumer experiences remain fragmented and under-developed; the current proliferation of provider, plan, and patient portals and apps for accessing health records and health content has its own term: hyper-portalosis. In addition, just 22 percent of consumers think their health plan is integrating or utilizing their data to help them improve their health.⁸ Meanwhile, technology giants and other well-financed market entrants are making bold, experimental moves to tackle rising costs and consumer engagement by integrating technology and data. In addition, private equity and venture funding in digital health is increasing at a record pace, and all-in health technology funding stands at ~\$70B.^{9,10} Technology giants and other new entrants also have built-in advantages over incumbent players. These include different financial incentives, greater access to capital, digital and exponential technology expertise, brand permission, and consumer data sets.

As investments and innovative technologies flow into the industry, health plans are increasingly engaging in vertical integration to strengthen their competitive position. For example:

- Health plans and disruptors are acquiring/launching/developing pharmacies and pharmacy benefits managers (PBMs) in order to own the end-to-end value chain at a local level
- Health plans are acquiring and/or building out their self-owned and joint venture provider networks

Health plans are also diving deeper into digital health technologies. Several health plans are designing digital tools in-house and with partners across web, mobile, and wearable technologies. Others are acquiring smaller firms and start-ups with digital capabilities to take advantage of their skilled software development teams and flexible platforms. Investments in digital are reinforcing care delivery at a local level by helping consumers find care options and making it easier for providers/clinicians to connect with health plan members (including via virtual care).

With health care firmly on the path to a digital future, health plans that want to ensure their continued relevancy and viability will need to double down on investments and strategies that allow them to craft a consumer-centric, digitally enabled, and fully integrated ecosystem.

What health plans need:

A health ecosystem solution that enables personalized care, cost efficiency, and access to products and services

Tomorrow's health plans are likely to look and operate quite differently than today's—evolving and expanding their traditional focus on health care financing to promote integrated health and wellness while building their ecosystem around one or more of the following archetypes (figure 3):

Figure 3. Future-state health plan archetypes

	Future state archetypes and description	Value proposition
	Care amplifier (next gen provider integration) <ul style="list-style-type: none"> Own and contract with provider systems to open architecture and allow bidirectional access to data Provide transparency to costs and outcomes so members can make more informed decisions Enable transition of select care delivery to lower cost settings, including in-home care 	Transparency: provide insights that aid decision-making Lower costs: bend the cost curve through personalized, proven interventions and treatments
	Partner in health (holistic health improvement) <ul style="list-style-type: none"> Invest in key front end [next generation consumer interaction channels including virtual reality (v/r)] and back end [artificial intelligence (AI), cognitive] capabilities Partner with lifestyle companies, Internet of Things (IoT) firms, retailers, social media companies, and others to develop a full view of the consumer Mine data to develop insights and conduct personalized outreach to track, monitor, and improve health 	Convenience: change embedded in day-to-day life versus point-in-time interventions Trust: robust security and privacy to safeguard data
	Scaled services provider (core admin for the industry) <ul style="list-style-type: none"> Partner with tech firms, government agencies, and providers to develop cognitive computing-based solutions that can execute a full suite of operational functions Sell capability as a subscription service to other health plans and insurance companies Gain buy-in from members to re-sell select data to secondary subscribers such as retailers, marketing firms, and lifestyle companies 	Scale: process transactions at commoditized prices Quality: deliver superior operational outcomes
	Cognitive enterprise (fully intelligent and automated plan) <ul style="list-style-type: none"> Drive down transaction costs by leveraging machine learning, AI, and quantum computing technologies while improving throughput velocity, increasing automation, and improving quality of operational, financial, and analytical processing outcomes 	Superior technology: leverage leading technologies Data: own access to data sets and monetize them
	Community health hub (education, prevention, and treatment in the community) <ul style="list-style-type: none"> Integrate a brick-and-mortar presence with compelling financial proposition to deliver care at retail settings Leverage substantial footprint integrated down to the point of sale 	Convenience: timely preventative and routine care delivered to improve medical outcomes Lower costs: drive down costs for consumers and plans; focus on prevention and early diagnosis/cheaper treatment

Depending on each health plan's strategy and assets, it may offer components across all of these archetypes, but specializing in at least one can help to maintain a differentiated value proposition in the marketplace. Regardless of its chosen archetype, each health

plan needs to cultivate a health ecosystem. The goals are to build trust, sustain engagement, drive behavior change, and deliver outcomes to benefit consumers, providers, employers/sponsors, and health plans themselves.



What health plans should do:

Steps to build an integrated digital health ecosystem

While the steps to create a digital health ecosystem solution will differ for each health plan, one way to start is by taking the pulse of an organization's current digital health as measured against the three elements of a digital health strategy (figure 4). Are there existing advantages that can be leveraged; for example, robust consumer data, strong provider network, investments in digital tools/analytics, regulatory knowledge, a head start on vertical integration, and/or existing partnerships?

Figure 4. Elements of a digital health strategy



Consumer-centric

Focus on the needs of the consumer (build trust and engage on their terms to deliver personalized health care)



Digitally enabled

Become a true digital company by investing in digital front-end capabilities to engagement, as well as digital core and digital enterprise capabilities to power it



Fully integrated

Break down organizational brick walls to integrate across the entire organization, strategically making build/buy/partner decisions to fully integrate the platform

The good news is that many health plans currently have some foundational elements in place and can source other needed capabilities internally and/or externally through partnerships.

Consumer-centric: Health plans should focus on the consumer at all times to cultivate the relationship

Health plans should have a comprehensive, personalized view of consumer/member needs and optimize resource use in a given market by delivering the right information at the right time to help each consumer optimize their health.

Personal consumer data should flow across the ecosystem and be connected across data sets. In doing so, consumers could receive:

- Ownership of their health and health record;
- Experiences that are valued;
- Simple and effective service;
- Relevant information delivered when, where, and how they want it; and
- Trusted guidance when they need it.

Taking a consumer-centric approach could allow health plan members to:

- Make choices that best fit their needs and wants;
- Identify providers and networks that offer the optimal mix of access, quality, and cost;
- Enroll in programs designed to help them improve their physical, emotional, and financial health, ultimately leading to healthier lives.

Consumer-centricity could ultimately usher in the rise of truly individualized coverage and care. For example, unique, one-of-a-kind plans would be custom-tailored for each member based on their data, personalized next best actions, and enable precision medicine to be delivered to them.

Digitally enabled: The health ecosystem of the future

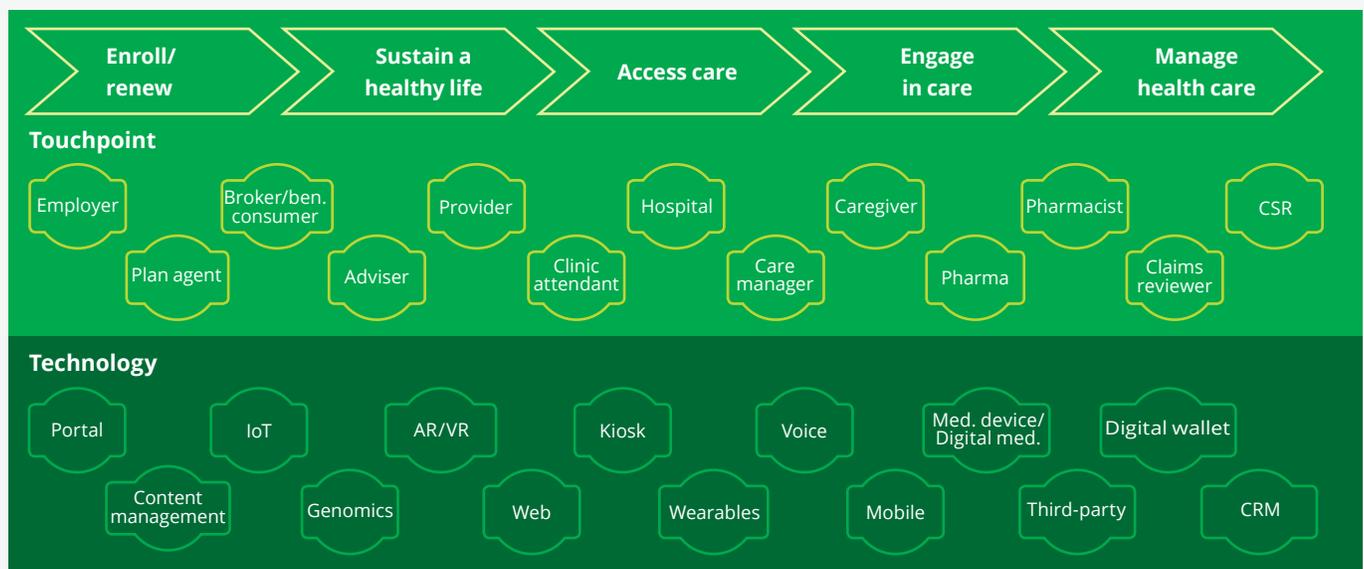
In the health ecosystem of the future, touch points, technologies, and capabilities would be interconnected via open platforms/application programming interfaces (APIs) (figure 5) and seamlessly packaged and delivered to consumers in their preferred manner of engagement. Interactions would be powered by analytics and artificial intelligence (AI) to tailor personalized experiences, solutions, therapeutics, and treatment plans that predictively sustain consumer well-being and generate meaningful workflow.

Players in this new ecosystem will need product offerings that are interoperable across the health system, tied to back-end systems, and incorporate cybersecurity measures.

Creating a best-of-breed digital health ecosystem that offers engaging experiences, captures consumer data at every step, and leverages machine learning to drive a feedback loop for continuous innovation should enable sustainable engagement.

Figure 5. High-performing digital ecosystem

Consumer journey and touch points



Capability

Enroll/renewal	Health and wellness	Rewards	Health record	Care search/transparency	Care mgmt./population health	Rx/pharmacy	Concierge/customer service	Finances
Social	Behavioral health	Triage and treatment	Telehealth	Provider connection	Chronic/complex/care support	Retail/eCommerce	Chatbox/virtual assistant	Manage plan

Analytics/Cognitive

Cognitive	Artificial intelligence	Neural networks	Blockchain	Insights/reports
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Cyber

Threat management	Infrastructure security	Identity and access mgmt.	App security	Risk management	Cloud	Data protection
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Data

Individual	Population	Institutional	Environmental
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Fully integrated: Robust technology architecture is essential to building a digital health ecosystem

The future of digital health is predicated on interoperable data and open platforms/APIs. A health plan’s digital health ecosystem should carve its place in that future by building a fully integrated technology platform that aggregates data and generates predictive insights via analytics and AI. A future-state conceptual architecture may include:

- Modern core administration engine that processes transactions in real time, provides access to all data, and can dynamically support customized offerings (benefits, contracts, etc.)
- Multiple means to monitor and inform members and consumers;
- AI hub that continuously mines data and optimizes capabilities

- Enterprise data lake and fabric for the collection and storage of unstructured and structured data from a variety of sources
- Standardized and secure external sources provider, member, and interoperable and secure sources of data (environmental)
- Additional external, cloud-based capabilities that can be accessed as needed

Operationalizing the digital health ecosystem

Strategically crafted build, buy, and partner decisions can help deliver the capabilities health plans need to operationalize a digital health ecosystem (figure 6).

Figure 6. Digital ecosystem capabilities can be delivered either in-house or via partnership

Key inputs when making the decision



Guidelines for when to build vs. buy vs. partner



Build

- Can leverage existing assets (e.g., advanced decision recommendations) to gain a head start on developing capabilities
- Contain the institutional knowledge and/or deep consumer data resources to determine what consumers want from the capability
- Can utilize a scalable population with demand for the capability (significant target demographic)
- Capability received commitment for sustained investment in talent and technology (e.g., digital product team)
- Capability is a differentiating offering for targeted consumers (own the relationship)
- Capability is monetizable (based on commercialization opportunity to plan sponsors)



Buy (acquire)

- Engaging product is already deployed to users and would be difficult to replicate in-house (e.g., a robust rewards platform)
- Talent is unique in the marketplace and commitment is received for retainment
- Strategically preventing competitors from creating access to strategic data sets, intellectual property, etc.
- Deeper capability integration increases strategic advantages by transforming the consumer experience
- Capital is available for one-time significant spend



Partner

- Capabilities are not essential to the organization’s value proposition to consumers or employer groups (not part of a core journey step you want to enable)
- Need access to external parties (e.g., non-owned provider network)
- Technology is nascent/at very early stages to begin initial exploration/experimentation (e.g., AR/VR)
- Need to quickly offer something to keep up with the market
- Features are commoditized in the marketplace
- Exclusivity available if strategic data sharing
- Partnering with providers and establishing joint ventures can help enable value-based care models

Conclusion

Digital and exponential technologies are poised to disrupt health care, and leading innovators and new entrants are seizing the opportunity by ushering in a new era. The application of these technologies requires health plans to fully reimagine and revolutionize their businesses. This transformation impacts all parts of the value chain from core operations through care delivery to consumer health and well-being.

The basis of competition is changing faster than ever before, and re-orienting to a consumer-centric digital enterprise with appropriate agility is not an option, it is a requirement for survival.

Health plans must...

Embrace a **consumer-centric mentality** across all operations to fundamentally change how consumers receive care and sustain health and well-being.

- **What this means:**
 - Building consumer trust, where consumers view their health plan as a partner in helping them optimize their health
 - Engaging consumers in personalized ways through moments that matter
 - Driving behavior change to deliver better outcomes for all stakeholders
- **Actions to take:**
 - Make the health and wellness needs of the consumer a priority
 - Deliver personalized and relevant information to the consumer on their terms
 - Determine and select health care archetype(s) based on existing strategy, assets, and competitive advantages

Transform to be a **digital-first health organization** (not a health insurance company) to continuously evolve and adapt to changing consumer health needs that span the entire end-to-end journey.

- **What this means:**
 - Rethinking how business gets done and not assuming the status quo
 - Optimizing existing business processes with new digital methods
 - Using analytics to revolutionize how consumers are engaged, monitored, and guided to optimize their health
- **Actions to take:**
 - Embrace a fail-fast, agile mind-set by utilizing rapid prototyping, testing, and piloting
 - Implement a use case-driven mentality and focus on delivering value early and often
 - Define lagging and leading key performance metrics (KPIs) to measure progress

Cultivate an **integrated health ecosystem** to break down traditional silos and enable frictionless stakeholder experiences.

- **What this means:**
 - Integrating players and connecting data in new ways that empower consumers
 - Building the flexibility into operations and systems that allow for rapid on- and off-boarding of ecosystem partners
 - Adopting a mentality of innovation through orchestration and adoption via test and learn models
- **Actions to take:**
 - Craft a digital health ecosystem that allows for seamless integration of best-in-class enterprise and partner-developed capabilities
 - Build an integrated digital platform with a data fabric that underpins organizational transformation and data interoperability
 - Partner across the health care ecosystem to truly integrate best-in-class capabilities

Executing the defined approach will enable better health outcomes for consumers, provide simplified access to health care products and solutions, reduce costs, and increase transparency across the health care landscape. It is essential that health plans take the prescribed approach to evolving their role in the future of health.

Endnotes

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