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The new health industry ecosystem

What's your "way to play"?



Introduction

We are at a genuine tipping point. The health industry is for a variety of reasons ready to change. In Canada and in many other developed countries around the world, we're just not getting enough out of health care dollars. In fact, Canada spends more on health care than the majority of its peer countries that are members of the Organisation for Economic Co-operation and Development (OECD).



After a normalized view, adjusting for age (i.e. the percentage of the population over 65 years of age), it ranks third highest for expenditure on health care as a percentage of GDP (Fraser Institute; OECD). With health spending only projected to grow, health care in Canada faces difficult questions about the sustainability of the current state of our system.

As government and health system leaders across Canada heed these warnings, an important dialogue must be established regarding the role of public and private sector innovation, service provision and overall approach to investment. The focus of this discussion doesn't need to rest solely on policy and funding reform. It can begin by recognizing the capabilities, assets and opportunities to help shape and influence the emerging health ecosystem. It's our view that incremental change and disruptive change have a significant role to play. Organizations wanting to succeed in this new reality must learn to adopt broader perspectives and hold themselves accountable to truly "pushing forward" in a more challenging and uncertain world. But what's this new health ecosystem that we speak of?

We define this emerging health ecosystem as the set of interconnected stakeholders participating in Canadian health, including public and private payers, providers and suppliers. But we must think differently about participation in health. Our view of health and the factors that affect it must be considered more broadly. For example, the roles of broader government and local communities are critical to change our approach. And traditionally fringe areas like consumer health and wellness will become increasingly important in changing the way health is redesigned and delivered. Important contributors like allied health providers, retailers and emerging health product and service developers, including technology companies, employers as an important sponsor and the evolving role of the individual in reshaping their own health experience, all have an important role to play. Working together, each can contribute significantly to improving quality of care and health outcomes, while also lowering costs. Perhaps most critical is the recognition that the vast majority of this activity will often reside outside the four walls of the hospital. And if we're able to respond to the need, much of it will happen in our homes and local communities.

We discuss a number of the factors reshaping the health industry ecosystem in this article, as well as a number of emerging participation models now in the market. We also offer advice to organizations wishing to respond to opportunities in the new ecosystem.

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What will drive the reshaping of the new health ecosystem

A number of critical market forces are reshaping the new and emerging health industry ecosystem. Those that can align and position themselves to take advantage of this ecosystem will have a better chance of "winning" in health.



Consumer-centric health is a main driver, often focused on wellness, when it comes to decision making and traction in the new health system. Much like other industries, the concept of a collaborative or participative economy is changing the relationship with the consumer. Whether it's integration of care, liberation of data or acting on the information, all ecosystem participants can capitalize on this new appetite for information and insight. They can also harness the potential of informed, activated consumers. Responding to this, companies are already commercializing self-monitoring tools, and they are providing their consumers with the information and resources to make healthy choices and changes. As a result, organizations must work within the new ecosystem to respond to positive consumer activity, rewarding adherence and participation in wellness programs with incentives like discounts and points that can be converted to real currency or other tangible goods.

Proactive health is a major driver of change in the health ecosystem. Technology will continue to allow tracking and monitoring to better manage disease. Wearable devices will help with disease prevention, data about optimum lifestyle decisions and the right care. This information will need to be incorporated in provider plans and updated continually in response to new evidence. Perhaps one of the most significant wild cards is the phenomenon of quantifiedself. This is defined as self-knowledge through self-tracking by data collected from devices like wearable technology, fitness apps and sleep monitors. Increasingly, other biometric information could grow this opportunity significantly. More broadly, in a system that must change, patients are arguably the most significant resource for change. More and more, they have an opportunity and the interest in self-navigating and actively managing their health. Our prediction is that the next major wave in proactive health will be the role of community engagement in driving increased accountability. Emergence of social networks, in person and digitally, to reinforce positive habits will play a vital role in improving health.

Health-care integration, collaborative care teams and new incentive models ultimately mean adjusting the health ecosystem to tailor services to consumer needs, taking into account specific patient health conditions, delivering quality care and encouraging specific behaviours over the long term. Digital solutions and new models of collaboration have a significant role to play, but work needs to be done on the subject of open standards, interoperability and communication from physicians and other service providers. If we can begin to join them, then by making the most of data and focusing on proactive care, together we can shift the trajectory for experience, health outcomes and cost. What's more, innovation in payment models will be an excellent complement to digital integration solutions, with opportunity to learn from early successes south of the border.

Data Sharing is also critical. As mentioned, an important factor in reshaping the health ecosystem will be the evidence to inform decision making. Data can help solve many challenging problems in health. For example, retail pharmacy could help improve consumer adherence to prescriptions and learn new information about adverse interactions which arise. This information could then be used to establish enhanced relationships with patients and other providers. Similarly, community-based providers can start combining digital, and brick and mortar assets to personalize experiences for individuals and design service offerings to cater to different consumer, behavioural and socioeconomic contexts that often vary significantly by locality. Data can help us understand, assess risk and respond proactively and often much more effectively.

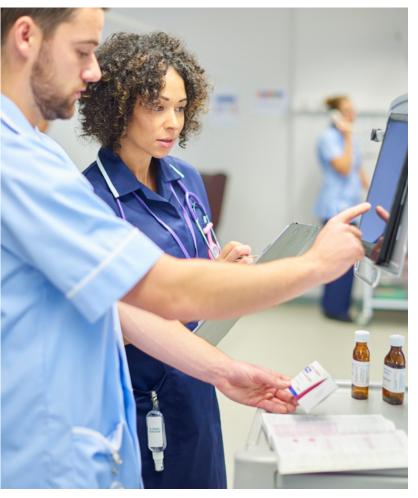
Clearly, the evolving roles and responsibilities of health ecosystem participants are changing. In the workplace, for example, employers, employees and payers have a converging set of interests in reducing health-care costs, improving productivity and living healthier lives. Much more can be done to improve all three with enhanced and integrated health and wellness solutions. Public and private providers can work with companies, payers and the rest of the health system to identify risks, drive better compliance and increase value from health investments, all while keeping patients at home, in the community and at work. This will ultimately deliver significantly enhanced health, business and broader economic outcomes.



The shifting health market structure

The corporate leaders of our age are technology and data companies. In fact, the Top 5 companies by market capitalization in January 2019 were all technology companies. Albeit in different ways, all five companies are dominant global giants and already using their data prowess and innovation to help transform health.

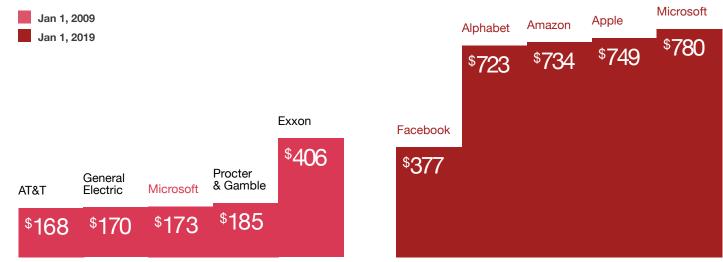




Top 5 global companies by market cap, in 2009 versus 2019

This trend is true of traditional health organizations and newer entrants. In fact, recent PwC research identified that 84% of the Fortune 50 had at least one offering in health. Much of this activity is driven by a consumer experience gap and health systems that are unable to free themselves from legacy practices and investments, archaic reimbursement policies and a highly complex web of stakeholders to manage. All of these factors create an opportunity for more nimble and innovative new entrants.

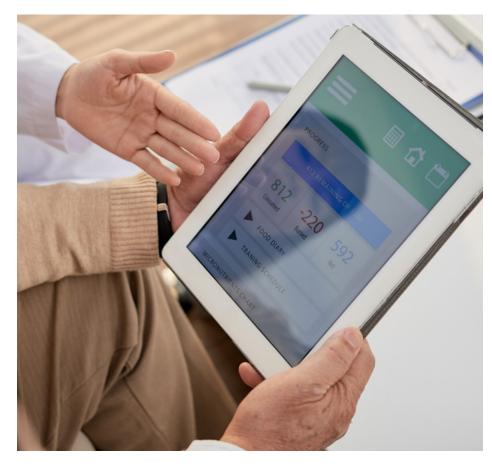
These drivers of change are all contributing to the achievement of a similar goal: How we deliver the right care at the right time and in the right location. The ecosystem must and is beginning to change. We may, at times, overestimate how quickly a change will happen, but it's a matter of when not if. It's our view that, in this new ecosystem, payers, providers and other participants in health will have to collaborate with one another in very different ways to identify consumers, understand their needs, tailor their offerings



All funds US\$ billion

Illustrative convergence of unmet wellness, medical and consumer needs in health

Wellness needs	Infant and pregnancy well-being Nutrition Physical activity Cognitive training	Smoking cessation Weight management Physical activity Senior safety	Managing and sharing personal health data Ergonomics Beauty and skin care Consumer-genomics
Medical needs	Depression and anxiety Dementia Chronic pain Chronic respiratory disease	Virtual access to health professionals Diabetes Hypertension Cardiovascular disease	Cancer Pre- and post- operative surgery Allergies Pharmacogenomics
Consumer needs	Digital/mobile At-home convenience Loyalty programs Personalized	On-demand In-store Payment options Social media	Customer support Quantified-self Reminders Education



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Everyone involved will have to rethink partnerships, funding, intellectual property and other asset sharing.

and deliver them appropriately. Everyone involved will have to rethink partnerships, funding, intellectual property and other asset sharing, including the use of data analytics. Each stakeholder will bring different assets to the table. Some main examples include: a unique interaction with the consumer; brickand-mortar stores and clinics; connected devices; specialized human sources; data and insights; a deep-payer relationship; or financial capital.

The question for leaders will be: Where should I target my efforts? This discussion must start with the needs of the customer. The diagram above provides just a few examples of unmet needs.

How will you participate

There are many unmet needs in health, but given the tight reimbursement, fragmentation and range of other complexities in the health industry, few areas provide immediate opportunity to drive significant commercial gain. More significant strategic investment would be required for that to happen.



Ultimately, no matter the market direction, choices about the foundational capabilities for success need to be made. We call this choosing your "ways to play," which could include one or a combination of different models. We have identified five different "archetypes".

Value chain integrator

This archetype will seek to assemble and make the most of resources from a range of partners along the health system value chain in order to fulfil their core mission in health. The ability to draw upon existing infrastructure and distribution channels has allowed these partnerships or acquired assets to significantly reduce market entry or overall operating costs, simultaneously expanding their reach. South of the border, we're already seeing major partnerships among private payers, pharmacies and pharmacy benefit managers. Closer to home, retailers and health services companies are diversifying in health through a mix of brick-and-mortar and digital offerings across both health and wellness.

Value chain integration requires organizations to be deliberate in reaching different partners (e.g. financing; setting up clinics; acquiring data, technology or other health service delivery assets). This is often achieved through building out significant scale and scope of services, delivering value to as many consumers as possible by a large footprint or network of partners. But in the age of digital technology, physical size will not be the only way to scale, and success will be measured by number of lives touched.

Community hub provider

As the aging population and rise in chronic illness create more pressure on primary-care services, the provision of communitybased care will evolve and perhaps become more diverse. There is a bigger and more formal role for other wellness service providers, including pharmacies, fitness services, dietary management, spiritual health and others. Whether it's a single provider network or a set of geographic micro hubs, a new centre of gravity is emerging—the community hub provider. The primary value proposition of this archetype is creating enhanced community-based care capacity, consumer convenience and the freeing up of acute health



system capacity by focusing on preventative rather than curative treatments.

These hubs will allow and propel the shift to community-based care provision. While strong assets are already in place, real momentum will require gaps to be better understood, and new care pathways and care plans will need to be developed in the new ecosystem. These will make the most of new community-based resources like seniors' housing, pharmacies, retailers and new hospital systems. And these, in turn, bring technology assets and specialized human resources that can directly tie into other community care services, including home care, discharge planning, care navigation and transportation.

Digitally connected network provider

Similar to horizontal system integration activities, this model would likely build on consumer and/or patient (e.g. loyalty or claims) data. Ideally, this would combine the capabilities of an electronic healthrecord provider with a consumer-controlled health record, offering access to a portfolio of other consumer health solutions. Private and public sector organizations are already pursuing such strategies. They could eventually become an integrated set of digital networks or even consolidate into a single connected health network over time.

These networks could build on existing digital health platforms, advancing connectivity to established care providers in ambulatory, pharmacy, acute, home care and allied health. This would then make the most of solutions like digitally enabled consults, prescriptions, referrals, personal health records and others. Advances in



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Digitally connected network providers will be competitive in information technology, focusing on systems' interoperability and data sharing.

technology like the Internet of Things, cloud computing, data analytics, artificial intelligence and machine learning—and the practical ways they can be applied, including in autonomous vehicles and e-commerce—mean there is a need for integration of the digital network. Digitally connected network providers will be competitive in information technology, focusing on systems' interoperability and data sharing.

No participant can operate alone in the digitally connected network. These networks can provide a medium of engagement and exchange where joint strategies are developed, partnerships are identified and formed, and offerings are launched, with the new digital network providing the cost-efficient medium to enable this. These digital networks or "ecosystems" will be able to connect acute-care providers, clinics, pharmacies, retailers, home care, private payers, start-ups and charities, among others.

Product and service marketer

This archetype offers health products and services that allow improved care quality, better outcomes and lower overall costs. Though some of these products and services will be targeted at acute providers and related settings, much of the opportunity will be to deliver solutions that either directly allow or eventually lead to more care being delivered closer to home. This may encompass virtual or physical offerings that are differentiated and increasingly will need to address prevention and more costly, complicated chronic health conditions. Some of the underlying capabilities of this archetype will include attracting new customers through partnerships or new initiatives and building long-term, "stickier" relationships with them where relevant. In some cases, this will be a specific health issue, but in others it will require partnering to address the patient's whole health needs. They will also need to use behavioural science that leverages incentives and other nudges to ensure consumers adopt and stick to the product or service to bring about a long-term solution to problems.

Using data and delivering an enhanced consumer experience may be the most important underlying capabilities. Organizations will need to understand consumer preferences and determine how they will deliver consistent experiences across traditional venues, new, non-traditional physical locations and virtual arenas that consumers will come to recognize and expect. They will invest in loss-leaders and "Uberized," at-your-service solutions to attract and retain customers. They also must determine how to marry home life, work life and user experience, where the 9 am to 5 pm workday and the 5 pm to 9 am of life must not be separated when facilitating and improving the consumer and overall health experience.

Data and insights manager

Many ecosystem participants have been collecting data. And the scale, scope and velocity of this data will only grow when many more start. For the data and insights manager archetype, connecting data not just from patient encounters but also encompassing the preferences and social circumstances that shape patients' everyday health and health-care-related purchasing decisions will be the priorities. They will use that information to gain insights to help give a more seamless, customized experience and stay connected to customers. They will use these insights to make predictions that help better manage risk, devise improved care planning information and create better overall efficiency.

Those who get an edge will be the ones able to connect personal consumer information across employer health benefits plans, family physicians and pharmacies. This connection will bring relevant health insights to customers, and develop and distribute offerings. For example, we believe that wellness can and must be personalized. This can be done through a combination of user claims data across different health benefits settings and predictive analytics offerings. Both can support the development of targeted wellness solutions to prevent unwanted issues like poor mental and physical health, resulting absenteeism and disability, while reducing pressure on the public health system. Potential services could target improved access, development and enhanced management of employee health and wellness benefit programs and enhanced uptake.

The archetypes or "ways to play" covered here will need to be combined through innovative and nimble partnerships. For example, advanced analytics could be offered by combining the connected systems data outputs from the data and insights manager with "smart" technologies such as artificial intelligence, likely provided by digitally connected network providers. And these could deliver insights to improve all aspects of care, including efficiency and patient experience.



The New health industry ecosystem and the recommended "ways to play"

Moving away from yesterday's health care...

- · Reactive
- Primarily physician driven
- Institutional
- · Patients'-as-a-passenger
- Paper-based
- Highly fragmented
- Health-focused
- Data used post-hoc
- · Technology in the hands of a few
- Predictable set of partners

...by developing news ways to play and....

- Value chain integrator
- Community hub provider
- · Digitally connected network provider
- Product and servce marketer
- · Data and insights manager

...creating the "new health industry ecosystem"

- · Enabling proactive care
- · Enabling virtualized
- Targeting consumers
- · Driving care integration
- Offering products and comprehensive solutions that deliver improved value for customers
- Improved health outcomes
- Keeping people at home

Moving forward

Organizations navigating these times of change must focus on capabilities that advance the most disruptive potential and external alignment, while managing the risks involved.



Opportunities are plentiful, but the risks and disruptive potential of these changes are outrunning many organizations' ability to respond to them. An organization can realize its full market potential only by acknowledging the capabilities needed and charting a path toward developing and using them. We offer organizations the following advice in moving forward.

1. Focus on capabilities

We believe that every organization must place capabilities at the heart of strategic planning. Our published research confirms that most strategies fail because they're not sufficiently weighted to capabilities and how they fit to form a reinforcing system. Organizations that reliably and sustainably "win" or deliver to targets have a coherent strategy that's facilitated by a "system" of differentiating capabilities. Organizational capabilities are the link between strategy and execution. Organizations that use strong performance and demonstrate the ability to renew themselves in the face of changing market conditions focus on capabilities rather than products or assets. Our belief is that in a world-class organization, "you are what you do, not what you sell." So an exercise that uses alignment across the leadership team and forces a conversation around what truly differentiates the organization is critical. Organizations must always ask: Does this investment help us build stronger capabilities in the areas that matter?

2. Respond to opportunities earlier

Historically, many companies have been content to react as it relates to disruptive opportunities, problems, customer concerns and other market forces linked to their products and services. That approach no longer works; today, being proactive matters. Companies must consider the potential consequences of their solutions, new technologies and other market opportunities while they're developing them and considering what to market. Winners in health must anticipate, plan and invest. The "speed to move" requirement has become all too significant for organizations to play the "waitand-see" game. The reality is that the overall business environment moves far more quickly today than it has in the past. And the rate of survival and longevity of an organization has never been lower. Never in history has it been easier to access and use technology to disrupt. For companies, responding to opportunities more quickly can often mean the difference between market mediocrity and domination, or in some cases, survival or failure.

3. Develop a culture of agility

Agility in this context means the ability of an organization to renew, adapt, change quickly and succeed in an often rapidly changing, ambiguous, turbulent environment. And not changing your business or operating model quickly enough, by leveraging today's emerging technologies may have dire consequences for your company. Though the temptation is often to slow down and figure out what the "right" path is going to be, a better balance must be established, with a leaning toward action and willingness to coursecorrect. This is often referred to as the "agile" approach. What it takes is a cultural shift, adopting broader perspectives and holding yourself accountable to rapid planning and continuous improvement of products and services. Similarly, you must respond quickly to internal problems and correct the mishaps and unintended consequences of your efforts. You must also pay more attention to the well-being of employees, relationships with customers and other stakeholders. Ultimately, this often manifests in the need for new competencies, particularly how you attract, hire, train and motivate your leadership and teams to respond to the new ecosystem.



4. Work with others to innovate

Innovation is hard. And in the age of industry and technology convergence, often it requires companies to work beyond their own walls and form partnerships and working relationships with regulators, stakeholders and peers. Companies have an opportunity to work with partners, regulators and payers, and other stakeholders to reframe problems and explore approaches to reduce risks, unlocking new and more significant innovation opportunities. To survive in the new ecosystem, it's important to work with others and develop new perspectives (e.g. seek to understand market trends, gaps and concerns, and why those concerns exist). Working with others to devise potential solutions that take into account the potential for disruption, while also ensuring a path for innovation and growth, can drive competitive advantage. Partnerships often mean the ability pool risk, establish new capabilities or make certain investments that others have already established. This will often require new competencies, as alliances are often challenging for companies that are new at them.

5. Seek competitive advantage through data and analytics

As technology becomes more fully incorporated into daily business operations and consumers' lives, more and more data is being created. This data offers immense opportunities to understand people, companies and markets, largely through the application of analytics. In our experience, focusing on a use case that's tied to critical business outcomes is a great way to get started. It can illustrate the value case for data and build buy-in across the organization. Often, this revolves around bringing together a range of competencies, such as technology, finance, advanced analytics, business unit leaders and other subject matter experts, to help develop an end-to-end road map for the realization of value through analytics. Strategic

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Whether the goal is to better serve consumers, enhance return on select investments or optimize costs, data can genuinely provide competitive advantage in the highly data-rich but often information-poor health industry.

decisions will need to be considered, like whether to focus on data capture, the timing of monetization, forming innovative partnerships or disruptive ideas like pooling data with competitors. Every organization will have to consider its own path based on its underlying capabilities and the right business model. Ultimately, whether the goal is to better understand consumers, enhance return on select investments or optimize costs, data can genuinely provide competitive advantage in the highly data-rich but often information-poor health industry.

No matter what you do next, we urge you to reflect on the new health industry ecosystem, your selected ways to play and the advice we've offered. Industry change can be anxiety-provoking, but it's also an opportunity for differentiation, rebuilding a brand and charting a successful path forward.



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Strategy& is a global strategy consulting business uniquely positioned to help deliver your best future: one that is built on differentiation from the inside out and tailored exactly to you. As part of PwC, every day we're building the winning systems that are at the heart of growth. We combine our powerful foresight with this tangible know-how, technology, and scale to help you create a better, more transformative strategy from day one.

As the only at-scale strategy business that's part of a global professional services network, we embed our strategy capabilities with frontline teams across PwC to show you where you need to go, the choices you'll need to make to get there, and how to get it right.

The result is an authentic strategy process powerful enough to capture possibility, while prag- matic enough to ensure effective delivery. It's the strategy that gets an organization through the changes of today and drives results that redefine tomorrow. It's the strategy that turns vision into reality. It's strategy, made real.

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