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# **The future of health in Canada** Health care reimagined

# Contents

Introduction	1
Why Canada needs a new direction	2
Why now?	5
How can the transition be accelerated?	12
Industry incumbents: Government, clinicians, delivery organizations, private health insurers, biopharma and medtech companies	13
Emergent entrants: Startups and healthtech	17
Adjacent-industry entrants: Retail health, big tech, and telco companies	18
A new direction	19
Appendix	21
Contact	24

# Introduction

Significant challenges and unprecedented pressures are affecting the ability of the Canadian health system to deliver high-quality, patient-centred health care in a timely manner.

Aging populations, rising health inequities, a strained workforce, and rigid funding models are threatening the sustainability of health services and adversely impacting people's health and productivity. A more viable and cost-effective approach is required to ensure the future health and well-being of Canadians.

Deloitte's global <u>Future of Health™</u> campaign is based on our strongly held view that emergent technologies, digital transformation, artificial intelligence (AI), and open, secure platforms will enable a shift from the current reactive-treatment model to a flexible, forward-looking health management model for sustaining well-being and improving the cost-effectiveness of care. The new model is organized around what individuals need (demand side) rather than what institutions do (supply side). <u>These changes</u> will affect business and operating models across the health care ecosystem, particularly for traditional players.

# **Read more from Deloitte's Future of Health™ collection**

# Why Canada needs a new direction

2

# Canada has the most expensive universal-access health care system in the Organisation for Economic Co-operation and Development (OECD), yet its performance is modest to poor relative to that of its peers.<sup>1</sup>

A 2022 study found that 41% of Canadians had a difficult time accessing or were unable to access at least one of five key health services: non-emergency care, emergency care, surgery, diagnostic testing, and specialist appointments.<sup>2</sup> Specialist physicians surveyed by the Fraser Institute reported a median waiting time of 27.4 weeks between getting a referral from a general practitioner and delivering treatment—the longest wait time ever recorded in the survey's 30-year history.<sup>3</sup>

Provinces and territories continue to collaborate with the federal government to align on new support models, such as efforts associated with the Canada Health Transfer in February 2023. Increasing costs paired with inflation will continue to force governments to make difficult decisions on the allocation of public funds. The stakes are high—the majority of Canadians (66%) believe that structural issues in health care go well beyond the issue of insufficient funding.<sup>4</sup>

# Beyond current economic challenges, evolving macro forces will place increasing pressure on Canada's health system:



# **Aging population**

The population aged 65 and older is expected to increase from 16.2% in 2018 to 23.4% in 2040. Assuming no changes in the cost of products and services, this shift in demographics will increase overall health care spend by about 88% by 2040.<sup>5</sup>

## **Rising burden of disease**

According to the Public Health Agency of Canada, 44% of adults aged 20 or older had at least one of 10 common chronic conditions in 2019. Further, more than five million people had a mood, anxiety, or substance use disorder in 2022, the prevalence of which has substantially increased in the previous ten years. Approximately one-third of health care expenditures in Canada are related to four chronic conditions—cardiovascular disease, cancer, chronic respiratory disease, and diabetes—as well as mood or anxiety disorders.<sup>6</sup>



#### Long-term repercussions of the pandemic

The COVID-19 crisis added to growing health care costs and exacerbated other issues across the health system. Many hospitals are facing financial strains and budget deficits due to the pandemic, which are made more difficult by challenges such as unexpected surges in demand for care and shortages in front-line staff.



# Health workforce constraints

Stress, feeling undervalued, burnout, and other challenges have led to vacancies in health occupation positions quadrupling between 2015 and 2023, with one in four surveyed nurses planning to leave their job by 2024.<sup>7</sup> These shortages not only reduce access to care for patients, but also lower both workforce morale and productivity.



# **Health inequities**

The impacts of circumstance—social, cultural, demographic, geographic, and economic—on health disproportionately affect marginalized groups, demonstrating significant flaws in the health and social systems. For example, while Canada was ranked 13th overall on the United Nations Human Development Index in 2019, Indigenous communities in Canada were ranked 63rd. Life expectancy for First Nations, Métis, and Inuit Peoples is 10 years below the national average.<sup>8</sup>



## **Unpredictable shocks**

The nature, timing, and magnitude of future disruptions like the pandemic will vary. Every player in the Canadian health sector now needs to anticipate and prepare for system shocks and unexpected dislocations, such as the next cyberattack, technology disruption, or supply chain upheaval.



## **Climate destabilization**

Canadians have begun to feel the effects of extreme heat, major flooding, air pollution, the spread of infectious diseases, and infrastructure failure due to extreme weather. The health sector is contributing to such incidents—it currently accounts for about 5% of Canada's total greenhouse gas emissions, among the highest per capita in the world.<sup>9</sup> Health sector decarbonization is critical to achieve the country's goal of net-zero emissions by 2050.

Responding to these pressures requires reimagining and rebalancing the health system in a way that optimizes the health and well-being of Canadians while addressing accelerating health expenditures.

# Why now?

# An unprecedented convergence of macro forces is impacting and shaping the future of health, which can be leveraged to advance new approaches to health delivery.

Three additional key forces are driving the shift from a reactive and treatment-focused system to one primarily based on health promotion, prevention, and symptom management.

# Advancements in technology

Developments in access to data and computing power will accelerate the rate of technological change to unlock creative developments in AI, machine learning, pervasive computing, and biotechnology. This includes novel AI algorithms that can predict patients at risk, such as the AI-powered model developed by Toronto researchers that accurately detected type 2 diabetes in over 85% of patients in one study using a 10-second smartphone voice recording.<sup>10</sup>

There is also continued advancement in diagnostics, and scientific breakthroughs in genomics, proteomics, and other related fields that provide new ways to monitor, diagnose, and treat patients with greater precision. In January 2024, for example, the Michael J. Fox Foundation announced the discovery of a biomarker that could pinpoint the earliest known signs of Parkinson's disease in patients.<sup>11</sup> Such developments will help drive transformed value in the system by moving from late-stage disease and treatment to earlier diagnosis and intervention.

# Data ubiquity and interoperability

A significant transformation in access to data is shifting the health system away from an environment of limited, siloed, outdated data to one where data is more available and more accessible to individuals, care providers, and system administrators.

As interoperability becomes the norm, standards, cloud computing, and the expansion of digital technologies are fuelling the transition to horizontal and person-centric data platforms. As of 2023, 90% of clinicians were using electronic health records, while advancements in wearables, implants, and sensor-rich devices are increasingly enabling data capture beyond medical reports.<sup>12</sup> Critically, individual health information is becoming more available in real time, a fundamental change from today's lagging, reactive processes.

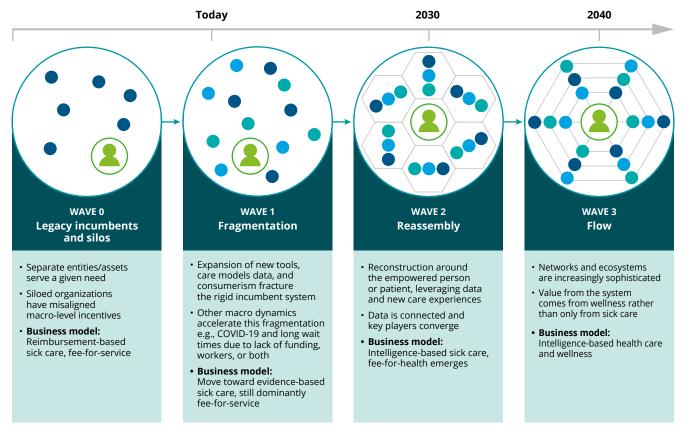
Enabling quick and seamless access to relevant data will shift value in the health system earlier in the care journey, providing insights for earlier intervention, prompting new types of collaboration between organizations, and enhancing the care experience for providers and individuals.

# Enhanced roles and expectations of individuals

With the rise in health and digital literacy, we are seeing an increased desire of Canadians to access and manage their data, new expectations of the providers that serve them, and evolving lifestyle choices. Now more than ever, individuals can access personalized information and insights about their health outside the classic provider structure. The proliferation of digital tools has fuelled patients' desire for autonomy, with 60% of Canadians expressing interest in having access to websites or apps that help monitor certain aspects of their health and 51% in using remote monitoring devices.<sup>13</sup>

These shifts will lead to the reorganization of the health system in a way that empowers individuals to exercise more choice, ownership, and participation in their health—not just in treatment, but also in prevention. It will also drive different expectations of health providers, with individuals insisting on an experience that is more fluid, responsive, always on, and accessible. We believe these forces will evolve over time, as described through the three waves of transformation in Figure 1. These waves will catalyze industry change, redefine health and the way it is delivered, nurture the development of networks and ecosystems that centre on the empowered individual or patient, and enable a shift from sick care to wellness.

Figure 1 The waves of transformation toward the future of health



#### Legend

- Individual
- Industry incumbents (governments, clinicians and delivery organizations, private health insurers, biopharma, and medtech)
- Emergent entrants (e.g., healthtech)
- Adjacent-industry entrants (e.g., retail health and telco)

A team of Deloitte actuaries analyzed the financial implications of this future of health vision. The team projected a shift from the existing reactive model to a model focused on proactive care and wellness through new and innovative roles, functions, and delivery models. This could help curb health spending and shift it toward investments that improve individuals' long-term well-being. According to the team's analysis, the following two realities could take shape.

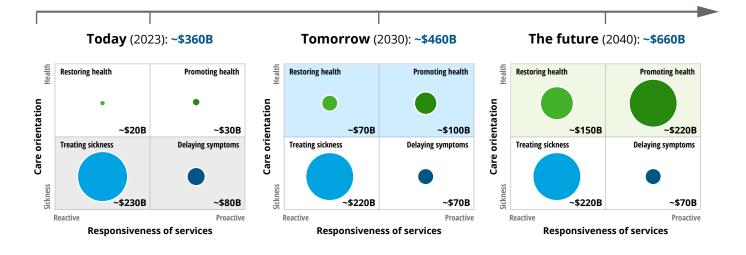


~45% of health care investments in 2040 are aligned to proactive, preventative, and predictive interventions, compared to ~30% today.



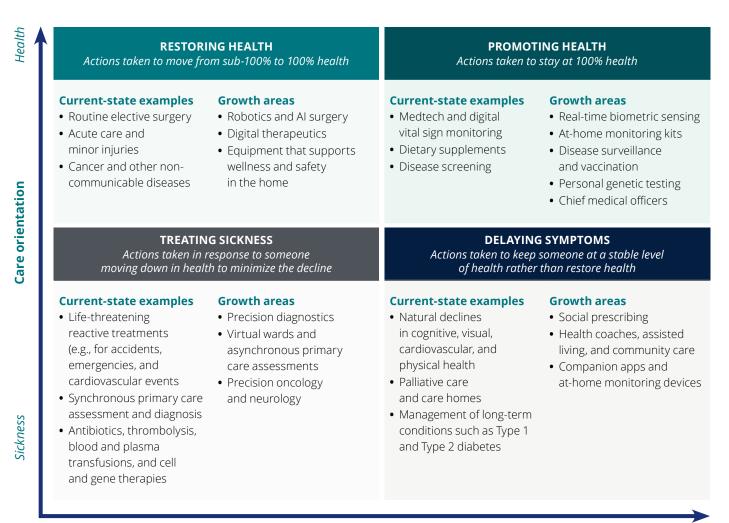
As shown in Figure 2, current investment in health care is focused on treating sickness, accounting for about 70% of spend (\$250 billion of the \$360 billion). By 2030, the centre of gravity will start shifting toward spending on health promotion, accounting for around 40% of all spend; up from about 30% today. As we approach 2040, the causal mechanisms and impacts of disease will increase that to about 45% of total health care spend.

# Figure 2 The shift to restoring and promoting health



While treating sickness is the dominant paradigm today, we will see more attention paid to restoring and promoting health through digital therapeutics, wellness-oriented apps, real-time biometric sensing, and personal genetics testing, among other growth areas (Figure 3). New-generation well-being activities will encourage consumers to monitor their health through technologies that can sense early signals of disease and other potential health issues so they can be addressed sooner.

# Figure 3 Growth areas in the future of health



Reactive

**Responsiveness of service** 

Proactive



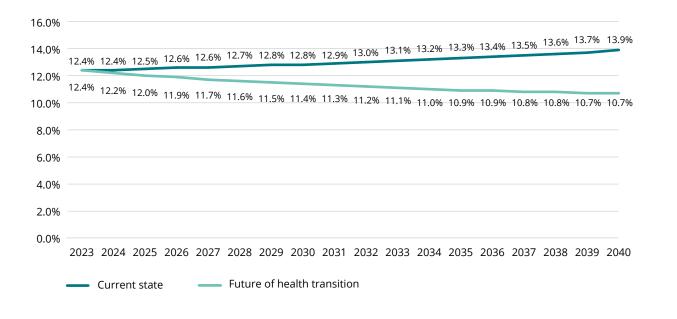
## Health care spend drops to

# of GDP by 2040, liberating ~\$200 billion of capital.

Canadians aged 65 or older will grow from representing 16.2% of the population in 2018 to 23.4% in 2040. An aging population comes with higher costs related to more chronic and agerelated conditions, increasingly complex medical needs, and more demand for services. Without intervention, base case government projections show growth in health care spend at nearly 5% per year through to 2040. This "do nothing" scenario means spending would reach almost 14% of GDP in just 15 years, significantly higher than the projected OECD average of 11.1%.<sup>14</sup>

Our model, assuming the future of health plays out as expected, breaks the inflationary trend, decreasing spend to under 11% of GDP by 2040. The difference in projections relative to the base case scenario frees up almost \$200 billion of capital. This can be referred to as a well-being dividend—the return on investment for tools, systems, and protocols that help consumers take an active role in their health and well-being.

# Figure 4 Canadian health spend as a % of GDP





# These significant savings come from:

- Proactive prevention and early detection using digital tools and advanced analytics
- Delivery of health care moving from bricks-and-mortar acute settings to virtual, home, and community settings and, for less routine services, specialty centres of excellence
- Greater patient access to education, products, and community as they take ownership of their health, well-being, and data
- New evidence-based and personalized scientific breakthroughs significantly reducing or eradicating many currently untreatable/incurable conditions
- Increased usability and reliability of health data sets enabling faster cycles of learning and improvement, with realtime training at the point of care and real-time decision-making by patients and their care teams
- Al and robotics reducing administrative burden and significantly streamlining both manual and cognitive tasks to liberate workforce capacity and enable human resources to focus on the delivery of care
- Faster modernization of underlying infrastructure through regulatory advancement, coverage flexibility, progress in digital and data tools, and by establishing virtual platforms to build solutions on top of existing infrastructure

# How can the transition be accelerated?

# Industry incumbents, emergent entrants, and adjacent-industry entrants will all play a critical role in the transition to the future of health. There are many actions these three groups of players can take to accelerate this shift—many of which are already taking place.

# Industry incumbents | Government, clinicians, delivery organizations, private health insurers, biopharma and medtech companies

Given their strong foothold in the existing ecosystem, incumbents are well positioned to lead from the front and play an outsized role in bringing about—and benefitting from—the trends that are reshaping the future of health. Incumbents can accelerate or at least support these trends; shape them or be shaped by them; and, with targeted approaches, capture the savings, efficiencies, quality enhancements, and improved outcomes that are expected. However, this transformation isn't a given. Getting there requires a bias for fundamental disruption.



# Governments

As the dominant players in Canada's health system—federal agencies and departments, provincial and territorial ministries and agencies, regional and public health authorities, and local municipalities—governments can:

- Increase investment in research and development, innovation, and technology adoption to improve health outcomes. Canada should continue to build on the flourishing Al ecosystem, where it is outperforming many of its Group of Seven (G7) peers, according to a *Deloitte report* commissioned by the Canadian Institute for Advanced Research (CIFAR), Amii, Mila, and the Vector Institute. This includes implementing innovative polices to incentivize responsible AI technology adoption as well as increasing government investment for early-stage health technologies and ecosystems. By doing so, Canada will be more likely to capture the well-being dividend.
- Act as catalyzing innovators to support ecosystem breakthroughs in health. Governments and agencies can optimize their efforts in cross-industry and cross-sector partnerships to stimulate collaboration and innovation. One example is in Newfoundland and Labrador, where the Eastern Health Authority announced a renewed focus on innovation to reduce care costs and deepen industry partnerships by shifting to a value-based procurement model and partnering with various companies across the health ecosystem. At a national level, the Coordinated Accessible National (CAN) Health Network partners with leading health organizations and companies across Canada to introduce new technologies into the health system and reduce barriers in procurement.
- Fund and commission prevention and well-being as a pillar of investment to accelerate the shift to wellness.
  Addressing pressures such as the needs of an aging population and the prevalence of chronic disease requires approaches that

extend beyond technology. In the Netherlands, an initiative of the Ministry of Health, Welfare and Sport called All about Health comprises more than 3,000 partners and 17 regional networks focused on health promotion and wellness to complement legislation.<sup>15</sup> In July 2023, the Singapore government launched Healthier SG, a reform plan to move the country's health care delivery strategy from curative care to preventive care. This includes working with sectors beyond health care to provide whole-person health care services, such as social prescribing to address social determinants of health.<sup>16</sup>

· Continue to align incentives to support new standards of care focused on treating the whole person and reducing health inequities. Models that incent greater coordination of care and services in the community, distribute smart medical devices, ensure patients know how to use these devices, and produce insights that result in well-timed nudges or behavioural interventions will be key to supporting populations, particularly those that are at risk. For example, Oak Street Health, a network of value-based primary care clinics in the United States, provides underserved communities and Medicare patients access to health services. Under its model, the emphasis is on preventative care, wellness, and mental-health monitoring and maintenance to influence patient behaviour and work through challenges related to social determinants of health. Oak Street Health reported saving US\$1,200 per patient in 2020, and in 2022, it reported a 51% reduction in hospital and emergency admission rates, alongside a 42% decrease in 30-day readmission rates.<sup>17</sup>



## **Clinicians and delivery organizations**

As direct providers with the potential to accelerate changes in the health system and enhance the patient experience, clinicians and delivery organizations can:

 Invest in technology to optimize clinical and administrative workflows and unleash the capacity of health care workers. Hospitals and health networks continue to trial and invest in AI tools to optimize work and reduce clinician burnout. A retrospective study explored the use of AI strategies in breast cancer screening, which indicated that AI tools could decrease workload by up to 70% without a reduction in cancer detection. Recently, the US Department of Veteran Affairs launched AI Tech Sprint, a US\$1-million contest for technologists to develop AI dictation tools to capture notes during patient visits or AI analysis tools that summarize medical records.<sup>18</sup>



# Advance predictive and consumer-centric care to promote seamless experiences for individuals and their circles of care. Leveraging Al, machine-learning algorithms, and data science is critical to the delivery of personalized care and better health outcomes. Unity Health Toronto's CHARTWatch, developed in collaboration with health Al startup Signal 1, employs machine learning to predict changes in patients' clinical states and avoid adverse events. This solution was successful at St. Michael's Hospital, reducing non-palliative patient deaths by 26%. British Columbia's Fraser Health Authority developed a digital front door (DFD) and digital twin to alleviate capacity challenges in emergency departments by helping citizens access the most suitable care and better utilize the continuum of services offered in the region. Of the 2,500 individuals who accessed the DFD in the first week, 550 were diverted to virtual

care instead of going to the emergency department or other

care settings.19

 Commit to population health and wellness by leveraging holistic drivers of health. Addressing social determinants of health is key to supporting whole-person health and underserved populations. One success story is the partnership of the University Health Network and the City of Toronto in launching the Social Medicine Supportive Housing initiative, which promotes community well-being through accessible and secure housing. In the United States, Kaiser Permanente invested US\$400 million in affordable housing when its data showed patients without homes stayed in hospital two to three days longer and had a 50% higher likelihood of readmission. The organization also invested US\$50 million in food and nutrition programs to improve upstream health and has launched initiatives related to public health, access to care, economic opportunity, education, environmental stewardship, urban health, and research.<sup>20</sup>



## **Private health insurers**

Given their preferential access to patient data and their interactions as payers in both the public and private health systems, Canadian private health insurers can:

- Provide personalized service offerings that aim to encourage positive behaviour change and support the transition to wellness. Customized behavioural interventions, known as precision engagement, will be a key driver for wellness and health promotion. For example, Manulife collaborated with healthtech company League to gamify digital health offerings for its group benefits members and partnered with Aeroplan to offer members points for engaging in healthy behaviours. In the United States, UnitedHealthcare, the insurance arm of UnitedHealth Group introduced UnitedHealthcare Rewards, providing members up to US\$1,000 annually for engaging in healthy behaviour, which is tracked via wearable device integration.<sup>21</sup>
- Develop innovative partnerships with incumbents to improve health outcomes through data-driven insights. Connecting data across sectors and industries creates a base of data that can be mined for predictive analytics and more comprehensive health management. In the United Kingdom, American International Group (AIG) and Cancer Research UK launched a partnership to provide health information

to customers with the aim of lowering cancer risks. In the United States, United Healthcare has developed a series of partnerships, called Communities of Health, with communitybased delivery organizations across the country to address social determinants of health and connect members to care. Since 2020, its service offerings expanded to support COVID-19 prevention efforts and care for the elderly and the uninsured via a partnership with the US Department of Health and Human Services.<sup>22</sup> · Develop new and unique products to improve the coordination and delivery of care and take on a greater role in the health ecosystem. As the shift toward personalized health accelerates, Canada's group plan providers will be able to deliver increasingly enhanced digital experiences. An example is Green Shield, which, as part of its Digital Clinic, adopted integrated health insurance benefits with provider access, acquiring Inkblot and partnering with Maple for virtual mental health services and doctor visits.<sup>23</sup> This expanded network now comprises approximately 5,000 clinicians, physicians, pharmacists, nurses, physiotherapists, and psychologists. In China, Ping An Good Doctor, originally a mobile platform for accessing health care services, has evolved into an ecosystem facilitating interactions among payers, patients, and providers under one managed care model. As of 2022, 145 million of Ping An's 227 million retail customers utilized this ecosystem.24



# **Biopharma and medtech companies**

With unique access to cutting-edge capabilities and significant resources, biopharma and medtech companies can:

- Deepen collaboration with other health players, enable decentralized clinical trials, and cultivate an open research ecosystem to accelerate innovation. Enhancing partnerships offers biopharma and medtech organizations low-cost access to specialized expertise to support the development of products and services. For example, Boehringer Ingelheim Canada has partnered with Alberta's University Hospital Foundation with numerous partnerships to advance innovation in respiratory diseases, rare diseases, mental health and improving health outcomes in Indigenous Populations. They are also a corporate partner with Plug and Play Alberta to enhance digital health innovation in the province.<sup>25</sup> In Ontario, Roche Canada and University Health Network have collaborated to develop a precision oncology platform using RNA-based predictive biomarkers for drug responses.<sup>26</sup>
- Build, acquire, or partner with other health system players to develop innovative capabilities related to advanced analytics and AI, data and interoperability, and wearables. Developing digital and data tools is key to enabling biopharma and medtech organizations to capitalize on and

further drive the shift to wellness and prevention. In 2023, Medtronic Canada partnered with AI startup FluidAI Medical to develop a post-surgical-discharge solution that integrates predictive analytics, AI, and home-monitoring technology for seamless care from hospital to home. Likewise, in 2022, General Electric HealthCare developed the Edison Digital Health Platform, which offers clinicians and delivery organizations access to over 50 third-party applications for analytics, AI, and data integration solutions.<sup>27</sup>

 Develop direct-to-consumer channels focused on prevention, early intervention, and wellness to expand and diversify business models and access new customers.
Capitalizing on the shift to wellness presents an opportunity to establish deeper connections with consumers, improve brand loyalty, and add revenue streams. UCB, a multinational biopharma company, is currently building out a program to pilot and scale a network of rheumatology clinics across Ontario through collaboration with academic hospitals and national partners to expand access, diagnose patients in earlier stages of the disease, and allow for early intervention to delay disease progression.



#### Emergent entrants | Startups and healthtech

As growing players in the health system, emergent entrants (e.g., healthtech companies and startups) have an opportunity to disrupt legacy systems. To do so, they can:

- Create market channels and business models focused on patient engagement, acquisition, and retention to grow their service offerings and challenge the status quo.
  Emergent entrants can develop and tailor products, merge with or acquire other players, or create new service offerings to access new customers. For example, Vancouver-based WELL Health Technologies leveraged a series of acquisitions to create an omnichannel patient and virtual services ecosystem that culminated in its Longevity+ wellness program.
  WELL reported 1.2 million patient visits and 1.87 million care interactions in Q4 2023, up 30% and 38%, respectively, from Q4 2022. Similarly, PocketHealth developed an online application granting individuals full access to and control over their medical images, enabling patients to seamlessly share them with other providers.<sup>28</sup>
- Build creative ecosystems, alliances, and partnerships with industry incumbents to leverage their resources and capabilities and create opportunities for innovative breakthroughs. This low-risk approach opens up possibilities to develop products or services without significant investment in time or resources. For example, Verto Health's digital twin orchestration platform enhances patient outcomes by personalizing their care journeys and integrating electronic medical record and system data for analytics-based insights. In 2022, following a successful two-year project with CAN Health Network and Unity Health Toronto, Verto began offering all 27 CAN Health Network partners access to this solution.<sup>29</sup>



# **Adjacent-industry entrants**

Retail health, big tech, and telco companies

# As established players in other sectors with significant resources and capabilities, these new participants can:

- Create ecosystems, alliances, and partnership mechanisms to enable collaboration across the sector and access the expertise of high-value industry players. As external players looking to enter the sector, collaboration will enable adjacent-industry entrants to effectively navigate the complexity of the health care ecosystem. Best Buy, for example, offers a holistic care ecosystem for aging in place, providing free courses for elderly adults and technology support from Geek Squad employees. It expanded its services by partnering with Connected Canadians, a non-profit organization that promotes digital literacy skills, to offer free technology training and support to empower seniors. In the United States, Amazon partnered with Omada Health, a virtual health care provider, to advance its Health Condition Programs to help its customers manage conditions like prediabetes, diabetes, and high blood pressure.<sup>30</sup>
- Optimize and adapt capabilities in adjacent fields (e.g., regulatory, cybersecurity, and human capital) to support health-specific ventures and use cases.
  These entrants can tailor their significant resources and established capabilities to the unique use cases of the health sector. Microsoft expanded its cloud computing platform, Microsoft Azure, by developing sector-specific products

such as Microsoft Cloud for health care (launched in 2020) and Azure Health Data Services (launched in 2022). In 2023, Microsoft further expanded its offerings with Microsoft Fabric, an end-to-end health care analytics platform. Fabric has been adopted by SingHealth, Singapore's largest network of public health care institutions, and through a partnership between Arthur Health, Quisitive, and the Ontario Workers Network (OWN), a network that includes the Ottawa Hospital.<sup>31</sup>

 Match capacity with demand to address unmet needs in health care, make gains in new growth areas, access new customers, and challenge existing industry standards and players. Capitalizing on their position as external players, adjacent-industry entrants can identify fresh opportunities and tailor their business models accordingly. Notably, Shoppers Drug Mart and the University of Alberta partnered to open Alberta's first pharmacist-led primary care clinic, offering patients assessment and treatment for minor illnesses and injuries, vaccine administration, chronic disease management, and lab testing. In January 2024, Alberta's health minister praised Shoppers Drug Mart for expanding access to primary care, and the company announced plans to open 44 more pharmacy clinics in the province by the end of the year.<sup>32</sup>

While these are just some of the examples of emerging players, collaborations, and technologies, they illustrate how the shift to the future of health can be accelerated. Traditional players in the Canadian health system already have the market access, resources, capabilities, and partnerships to position them as innovative leaders driving this transformation. All the organizations in the health ecosystem will need to make strategic choices to address today's pressing issues—within the context of where the industry is heading—in order to realize optimal health for all Canadians.

Health care reimagined: The future of health in Canada

# A new direction

19

# In working toward a better future, we can't rely on the solutions of the past

The ability to move forward requires reform to address deep structural issues. If we can pull the right levers and use technology creatively and at scale, it's possible to achieve a future of health for Canada that is predictive, preventative, participatory, personalized, and precise.

# The following goals can anchor this transition of the entire health system:

## Support the workforce

Investments in technology release capacity for health care workers, ensure clinicians work at the top of their scope of practice, and create new roles to support the shift to wellness. These changes to the work environment enhance recruitment and retention.

## Improve public and population health

Innovations in government and policy strengthen health infrastructure and boost collaboration to execute on robust prevention, promotion, and detection strategies. Streamlined data-sharing enhances collective understanding of the population's health needs, leading to better promotion of healthy living and more targeted execution of public health initiatives.

## Achieve health equity

By recognizing the impact of lived experiences and entrenched bias in traditional care delivery systems, leaders, designers, and researchers enable actual behaviour change over mere pledges. Players across the health system deepen inclusion of historically marginalized peoples and contexts in all dialogue, design services around their needs, and transform health delivery models to serve more people in better ways.

# Decelerate the projected spend on sickness and treatment

Governments define a vision and strategy to shift the paradigm from curative to preventative care, prioritizing integrated, community-based care, increasing the scope of preventative care within primary and community care, and investing in digital enablement in these sectors. This includes establishing incentives that shift spend and redistribute costs across the care continuum to promote healthier living closer to home.

## Enhance the individual's experience

Canadians experience greater and more timely access to health services that support their personalized needs. They work alongside providers across the health ecosystem to adopt approaches that will enable them to live healthier by either avoiding or delaying disease and by redefining the experience of living well with chronic disease.

While disease won't be eliminated, a more insightful understanding of disease progression will be used to effectively support individual health and wellness. As the focus switches from the treatment of sickness to holistic well-being, this will lead to healthier populations and more affordable and sustainable health care. In the not-too-distant future, the health care industry could be radically different, with Canadians living longer, healthier, happier lives.

# Appendix

# Methodology for the financial modelling of the future of health

The calculations presented in Figure 4 are based on a methodology developed in 2021 by Deloitte's US health actuaries in collaboration with industry leaders, proposing that emerging technologies, scientific innovation, and consumerization could lead to better health outcomes and decelerate health care spend. The report on this analysis, *Breaking the cost curve*, presented in-depth modelling of the financial implications of the future of health. Data from national health spend accounts (NHEA) from 2011 to 2018 was used to model the impact of six transformative forces shaping the future of health: data-sharing, the interoperability of data, equitable access, the empowered consumer, behaviour change, and innovative scientific breakthroughs. The analysis modelled how the move from a reactive, treatment-based system to a proactive, preventative system would affect the cost of care.

This model was adapted to the Canadian context by leveraging the Canadian Institute for Health Information's 2023 *National health expenditure trends* report.<sup>33</sup> Data from 2011 to 2023 (with 2022 and 2023 being forecasted spend) provided an estimate of how consolidated health care funding might change. The model projects these health care costs up to 2040.

Additionally, well-being spend was added to the projections to account for items that are not included in NHEA, including wearables, fitness apps, DNA testing, genetic services, weight loss/nutrition/diet, alternative therapies (e.g., acupuncture), and other mental health–related services (e.g., meditation and couple's therapy). This additional spend accounted for less than 5% of total health spend. The model used the average growth rate between 2011 and 2023 (9.8%) to project well-being spend through 2040.

This transition hinges on all players, including governments, insurers, health care practitioners, regulators, academia, and industry partners, moving toward more networked business models and away from the current siloed industry segments.

Finally, funding is either allocated as more traditional reactive health care spend or as non-traditional proactive spend. The difference or "well-being dividend" indicates how embracing the future of health might alter spend patterns, potentially curbing the persistent yearly cost escalations and providing more affordable health care across Canada (Figure 2 and 3).

# Endnotes

- 1 Fraser Institute, <u>Comparing Performance of Universal Health</u> <u>Care Countries</u>, November 10, 2022.
- 2 Angus Reid Institute, "<u>Access to Health Care: Free, but for</u> all? Nearly nine million Canadians report chronic difficulty <u>getting help</u>," September 2022.
- 3 Fraser Institute, *Waiting Your Turn: Wait Times for Health Care in Canada, 2022 Report*, December 2022.
- 4 Angus Reid Institute, "<u>After a 'decade of decline' in health</u> care, Canadians not convinced that money is enough to solve the crisis," August 17, 2023.
- 5 Fraser Institute, *Aging and Expenditures on Health Care*, March 2021; Fraser Institute, *Aging, Capital Investment, and Standards of Living*, February 2023.
- 6 Government of Canada, "<u>Prevalence of Chronic Diseases</u> <u>Among Canadian Adults</u>," February 5, 2019; Statistics Canada, "<u>Mental disorders in Canada, 2022</u>," September 22, 2023; Government of Canada "<u>How Healthy are Canadians</u>," April 11, 2017.
- 7 Health Canada, "Government of Canada and Chief Nursing Officer hosted the Nursing Retention Forum to address health workforce challenges," 2023; Statistics Canada, "Experiences of health care workers during the COVID-19 pandemic, September to November 2021," June 3, 2022.
- 8 Caitlin Dunne, "<u>To improve the health of Indigenous people</u> in Canada, we must confront racism," *British Columbia Medical Journal* 62, no. 7, September 2020.
- 9 Lauren Vogel, "<u>Canada's health system is among the least</u> <u>green</u>," *Canadian Medical Association Journal* 191 no. 48, December 2, 2019.
- 10 Forbes. "<u>3 Ways Artificial Intelligence Can Predict Disease</u> And Improve Treatment," October 29, 2023.
- 11 Deborah Brooks, "<u>A Key to Detecting Brain Disease Earlier</u> <u>Than Ever</u>," *Wired*, January 15, 2024.
- 12 Canada Health Infoway, <u>Shared Pan-Canadian Interoperability</u> <u>Roadmap</u>, May 2023.
- 13 Canada Health Infoway, 2022 Canadian Digital Health Survey: What Canadians Think, February 2023.
- 14 Lorenzoni et al., "<u>Health Spending Projections to 2030:</u> <u>New results based on a revised OECD methodology</u>," *OECD Health Working Papers* No. 110, May 23, 2019.
- 15 Everything is Health Network, "<u>All about Health</u>," accessed January 31, 2024.

- 16 Joyce Teo, "<u>S'pore to spend more than \$1 billion to get</u> <u>Healthier SG preventative care strategy up and running</u>," *The Straights Times*, October 4, 2022.
- 17 Oak Street Health, "<u>How Oak Street Health's Value-Based</u> Care Structure is Bolstering Health Equity in Underserved Communities," February 15, 2022; Oak Street Health, "<u>Oak</u> Street Health Releases Inaugural Social Impact Report," March 30, 2022.
- 18 José Luis Raya-Povedano et al., "Al-based Strategies to Reduce Workload in Breast Cancer Screening with Mammography and Tomosynthesis: A Retrospective Evaluation," Radiology 300, no. 1, May 4, 2021; Jory Heckman, "VA launches Al Tech Sprint to reduce burnout among health care employees," Federal News Network, October 31, 2023.
- 19 MultiPlatform AI, "<u>CHARTWatch, an AI-powered early-</u> warning system, aids Canadian healthcare workers in identifying high-risk patients," accessed January 31, 2024; Fraser Health Authority, "<u>Opening the gateway to a new</u> era in health care with predictive and prescriptive health analytics," October 16, 2023.
- 20 University Health Network, "<u>UHN and partners kick off</u> construction of Social Medicine Supportive Housing in Parkdale," March 25, 2022; Sai Balasubramanian, "Kaiser Permanente Is Investing \$400 Million To Create More Affordable Housing," Forbes, April 19, 2022; Kaiser Permanente, <u>2022 Kaiser Permanente Community Health</u> <u>Snapshot</u>, July 2023.
- 21 Manulife, "Soaring to New Heights: Manulife and Aeroplan Partner to Give Millions of Canadians Access to Rewards in New, First-of-its-Kind Canadian Partnership," January 23, 2024; Mike Pangilinan, "Manulife to Elevate Digital Experience for Group Benefits Ecosystem," Insurance Business Canada, September 28, 2023; UnitedHealth Group, "UnitedHealthcare Introduces New Rewards Program With a Modern Approach to Well-Being," February 8, 2023; UnitedHealth Group, "Supporting Vulnerable Populations," accessed January 31, 2024.
- 22 Cancer Research UK, "<u>All our corporate partners</u>," accessed February 1, 2024; UnitedHealth Group, "<u>Powering</u> <u>health care innovation through strategic collaborations</u>," September 13, 2023.

- 23 GreenShield, "Health plan sponsors: Maple always quick, easy, and convenient!," accessed November 13 2023; GreenShield, "Green Shield expands national mental health offering with acquisition of Quebec-based BCH Consultants," February 13, 2023.
- 24 Ping An Group, "Ping An Releases 2022 Sustainability Report Reveals Roadmap to Achieve Carbon Neutrality Goal," March 28, 2023.
- 25 Newswire, "<u>New Partnership in Alberta Supports Healthcare</u> Solutions for Interstitial Lung Diseases," 2020.
- 26 Newswire, "Boehringer Ingelheim Canada Partners with Plug and Play Alberta to Advance Digital Health Innovation," June 22, 2022; Roche, "Al with Roche," 2021.
- 27 Canadian Healthcare Technology, "FluidAl joins leading hospital-at-home project," September 20, 2023; General Electric Healthcare, "<u>GE Healthcare Developing a Digital</u> health Platform to Help Providers Accelerate Digital <u>Transformation</u>," May 15, 2022.
- 28 Canadian Healthcare Technology, "WELL Health announces Longevity+ program," November 15, 2023; WELL Health Technologies Corp. "What is WELL: Overview," accessed January 30, 2023; MarketWatch, "WELL Health Sees Higher 4Q Revenue, Earnings as Patient Visits Continue to Rise," January 25, 2024; PocketHealth, "PocketHealth: Take control of your healthcare journey," accessed November 9, 2023.

- 29 CAN Health Network, "<u>CAN Health Network Provides</u> <u>National Access to Verto's Canadian-Made Digital Twin</u> <u>Technology</u>," October 6, 2022.
- 30 Best Buy, "<u>Best Buy Digital Citizen Course</u>," accessed January 30, 2024; BusinessWire, "<u>Omada Health Joins</u> <u>Amazon's Health Condition Programs as Launch Partner</u>," January 8, 2024.
- 31 Microsoft. "Microsoft expands healthcare cloud strategy with new solutions and capabilities across data. Al and clinician experiences," March 15, 2022; Microsoft, "Microsoft introduces new data and Al solutions to help healthcare organizations unlock insights and improve patient and clinician experiences," October 10, 2023.
- 32 Shoppers Drug Mart, "<u>Pharmacist-Led Health Clinic to Open in Lethbridge, Alberta</u>," June 24, 2022; Phil Heidenreich, "<u>Alberta government applauds expansion of pharmacy care clinics, critic calls it 'Band-Aid' solution</u>," Global News, January 25, 2024.
- 33 Canada Institute for Health Information, <u>National health</u> <u>expenditure trends</u>, 2023, November 2, 2023.

# Contacts

# Debra Sandomirsky

Partner Life Sciences & Healthcare dsandomirsky@deloitte.ca

Michelle Theroux Partner Life Sciences & Healthcare mtheroux@deloitte.ca

**Kristin Mendoza** Partner

Life Sciences & Healthcare krmendoza@deloitte.ca

**Tom Stewart, MD** Chief Medical Officer and Partner Life Sciences & Healthcare thstewart@deloitte.ca

# Contributors

Caitlyn D'Souza Zayna Khayat Chris King Pierre-Luc Laliberté Tracey Ma Lawrence Sean Richardson Kristen Thompson



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