



## 2016 Top Markets Report **Health IT** Country Case Study

### Canada

The Canadian market is a promising one for Health IT products and services, with significant Health IT investment already in place. High urban population density and GDP levels, as well as a large share of aging population, support this ranking. There are some challenges, however, including limited or no interoperability of telehealth systems and a fragmented health policy structure that varies by province. One particularly salient element of the Canadian market is the strong provincial role in delivering health care services. Due to geographic proximity and long-standing relationships, U.S. companies have opportunities for greater collaboration in areas such as electronic medical records, telehealth and mobile health solutions.

Overall Rank

**13**

#### Description of Rank and Sub-score Measurements

Canada receives a high ranking in the report due to its relatively strong rankings for per capita health expenditure, widespread Internet access, density of urban population, GDP and share of aging population. In addition, given the close proximity of Canada to the United States and the likely presence of strong existing relationships between Canadian and U.S. companies, there should be good opportunities available for U.S.-developed products and services to further establish themselves in Canada over time.

#### Opportunities for U.S. Companies

While Canada only has roughly one-tenth of the U.S. population, as of 2011 the urban population percentages in both countries are similar at about 81 percent;<sup>i</sup> meanwhile, most of the remaining 19 percent of the Canadian population is in sparsely settled locations. The urban percentage of Canadians continues to increase over time; as recently as 1986, 76 percent of Canadians lived in urban areas. This ongoing urbanization is particularly noteworthy as Canada's population grew at a steady

rate of just over 1 percent a year between 2001 to 2011 (year of the last Canadian census).<sup>ii</sup>

In 2015, total health expenditure in Canada was expected to reach USD \$219.1 billion, or USD \$6,105 per person. It is estimated that, overall, health spending represents 10.9 percent of Canada's gross domestic product (GDP).<sup>iii</sup> According to the U.S. Embassy in Canada, Health IT accounts for about 2 percent (USD \$3.3 billion) of annual healthcare spending and has remained relatively stable in recent years. A key policy focus has been to harness technology to enhance efficiencies within the health care system, with USD \$7 billion to USD \$8.6 billion<sup>iv</sup> to be invested in Health IT infrastructure across Canada in the next 8 to 10 years. According to industry sources, Canada is expected to register a compound annual growth rate (CAGR) of 7.7 percent in the overall North American Health IT market in the coming years, followed by the U.S. at 7.2 percent.<sup>v</sup> Projections by Business Monitor International show a similar growth trend trajectory for overall health expenditure (see Figure 8)<sup>vi</sup> with the projected share of private health spending in Canada expected to increase over time.

Canada Health Infoway (hereafter “Infoway”) is an independent, not-for-profit corporation established in 2001 to accelerate the development of electronic health records and related technologies.<sup>vii</sup>

According to Infoway, Health IT is very well accepted by the general public, as well as medical professionals. More than one in five hospitals provide patients with remote monitoring services, and more than 350,000 Canadians use medical devices that capture and transmit data electronically to their healthcare provider for monitoring and support. In terms of procurement contracts, Infoway contracts with vendors to supply goods and services through a competitive bidding process on an invitation basis.<sup>viii</sup> Infoway partners mostly with technology solution companies across Canada. As a result, it is recommended for U.S. firms to establish partnership programs with Canadian companies to enhance their chances of entering Canada’s Health IT industry.<sup>ix</sup>

Since its inception, Infoway has received USD 2.1 billion through five federal government grants. These grants have been issued by Health Canada through the Canadian Economic Action Plan, a publicly funded program.<sup>x</sup> These funds have been used to co-invest in more than 400 projects with the provinces, territories and other partners.<sup>xi</sup> Below are

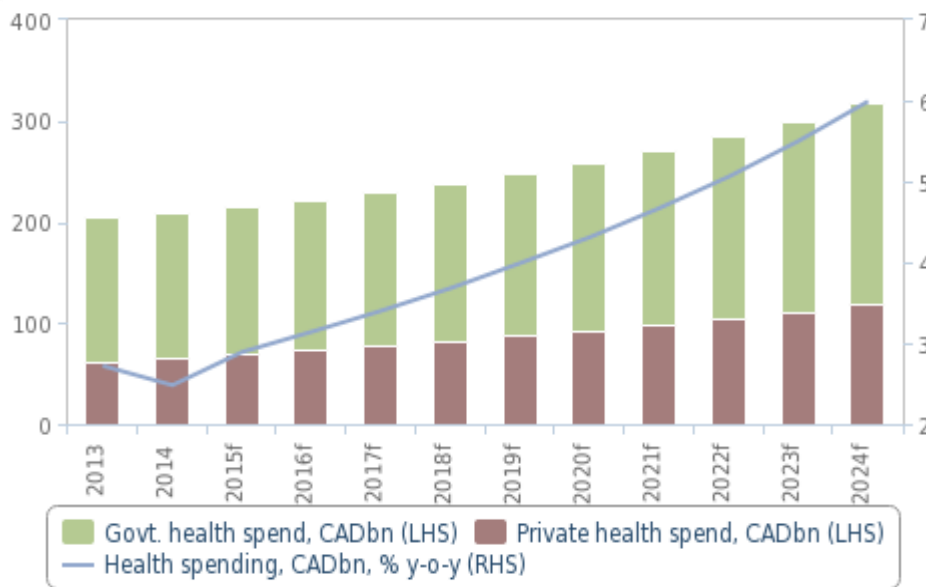
a few examples of how these investments are making a difference in Canada:

- 77 percent of primary care physicians are now using electronic medical records;
- 99.9 percent of x-rays, MRIs, CTs and similar imaging in hospitals are now digital;
- Telehealth videoconferencing is now available in 98 percent of hospitals; and
- 88 percent of lab test results are now digital.

Across Canada, the delivery of clinical care via telehealth continues to expand, from 282,529 sessions in 2012 to 411,778 sessions in 2014, a growth rate of 45.7 percent during the period.<sup>xii</sup> Since 2010, telehealth delivery has more than doubled. The delivery of healthcare services through telehealth and other forms of remote monitoring can pose tremendous market opportunities for U.S. exporters.

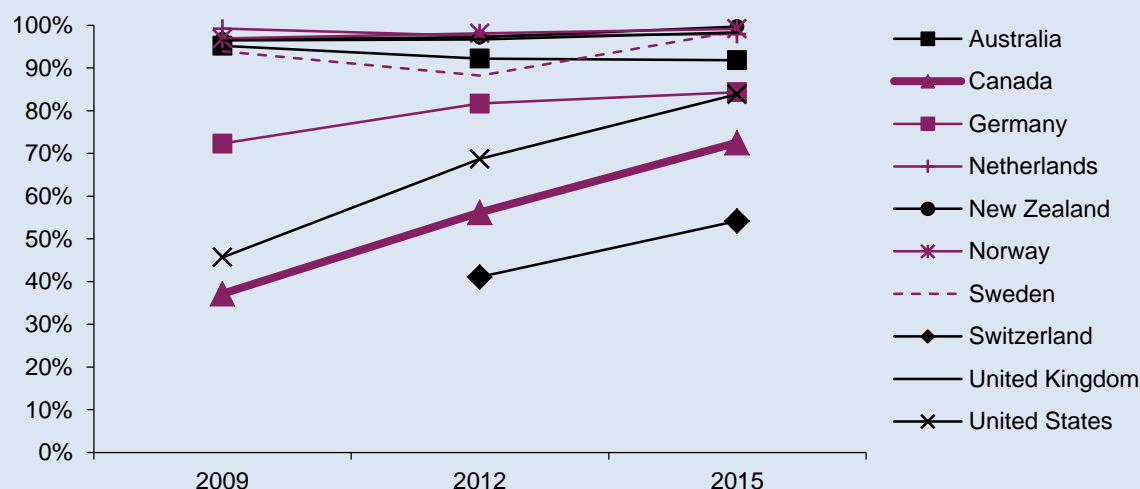
Infoway establishes investment approval and investment expenditure targets for 13 investment programs every fiscal year. Delivering on performance expectations and continuing to advance Infoway’s investment programs will require investment expenditures in the range of USD 75.45 million to USD 93.42 million in 2015 to 2016.

**Figure 8: Accelerating Growth** Canada: Healthcare Market Forecast



f = BMI forecast. Source: World Health Organization (WHO), BMI

**Figure 9: Use of EMRs has more than doubled since 2009, but Canada is still below the international average**



Source: Canadian Institute for Health Information

1. British Columbia Healthcare System (<http://www2.gov.bc.ca/gov/content/health/about-bc-s-health-care-system>)
2. Alberta Health Services (<http://albertahealthservices.ca>) and Alberta Netcare EHR (<http://www.albertanetcare.ca/>)
3. eHealth Saskatchewan (<http://www.ehealthsask.ca/HealthRegistries/Pages/apply-for-health-card.aspx>)
4. Manitoba Health (<http://www.gov.mb.ca/health/>)
5. Ontario Ministry of Health and Long-Term Care (<http://www.health.gov.on.ca/en/>)
6. Quebec Health Insurance (<http://www.ramq.gouv.qc.ca/en/citizens/health-insurance/Pages/health-insurance.aspx>)
7. New Brunswick Health Department (<http://www2.gnb.ca/content/gnb/en/departments/health.html>)
8. Nova Scotia Department of Health and Wellness (<http://novascotia.ca/dhw/>)
9. Prince Edward Island Health PEI (<http://www.healthpei.ca/>)
10. Newfoundland and Labrador Department of Health and Community Services (<http://www.health.gov.nl.ca/health/>)
11. Yukon Health and Social Services (<http://www.hss.gov.yk.ca/>)
12. Northwest Territories Health and Social Services (<http://www.hss.gov.nt.ca/>)

13. Nunavut Department of Health (<http://www.gov.nu.ca/health/information/nunavut-health-care-plan>)

Separately, the Canada home healthcare market was valued at USD 10.5 billion in 2013 and is estimated to reach USD 18.9 billion by 2020, growing at a CAGR of 8.9 percent.<sup>xiii</sup>

According to Transparency Market Research,<sup>xiv</sup> home healthcare devices and services are commonly used for the diagnosis and mitigation of chronic diseases. The home healthcare market is witnessing positive growth in Canada due to the rising incidence of chronic diseases such as diabetes, cancer and hypertension. According to the Public Health Agency of Canada, three individuals out of five<sup>xv</sup> aged 20

years and above suffer from chronic diseases such as diabetes, cancer, mental illness and cardiovascular diseases in Canada, and four out of five are at risk of developing chronic conditions.

Geographically, the Canada home healthcare market is segmented<sup>xvi</sup> as Ontario, Quebec, Alberta and Rest of Canada. Ontario and Rest of Canada together account for almost 70 percent share of the total Canada home healthcare market in 2013. Key growth attributors for the Ontario home healthcare market include favorable government initiatives to improve and strengthen patient centered home and community care services. A large population base, coupled with rising prevalence of chronic diseases in

Quebec, is projected to help this province grow with the highest CAGR for home healthcare during the forecast period of 2014 to 2020.

Separately, use of electronic medical records (EMRs) to manage patient care is lower in Canada than the international average, but uptake is increasing. Measuring the performance of primary care is still not standard practice in Canada.<sup>xvii</sup>

subsectors that may be promising for U.S. Health IT vendors.

Given Canada’s relatively lower adoption rate of EMRs, U.S. exporters may seek investment opportunities in this area. It is apparent that the Canada Health IT sector is continuing to evolve, and many gaps exist which may encourage foreign partnership to co-develop and cooperate in the

**Figure 10: With the exception of a few Western provinces, the adoption of patient EMRs is below the international average in Canada**

Source: Canadian Institute for Health Information; CMWF (Commonwealth Fund)

	B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	N.S.	N.L.	Can.	CMWF avg.
Proportion of primary care doctors who use patient EMRs in their practices (not including billing systems)	82%	85%	83%	73%	78%	60%	40%	71%	36%	73%	88%

**Figure 11: Only a small fraction of Canadian practices offer electronic communication with patients**

Source: Canadian Institute for Health Information

	B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	N.S.	N.L.	Can.
Proportion of practices that offer the following means of electronic communication with patients:										
Request appointments or referrals online	10%	18%	14%	11%	12%	9%	5%	7%	4%	11%
Request refills for prescriptions online	3%	7%	15%	10%	10%	6%	3%	5%	2%	7%
View test results on a secure website	36%	22%	22%	17%	13%	11%	12%	11%	21%	18%

Fewer Canadian primary care doctors use EMRs compared with the international average ( see Figure 10). Uptake has doubled in Canada since 2009, however, when the rate was 37 percent.

- Of those who have EMRs, Canadian doctors are less likely to use them to understand the health of their patients or to help make decisions to care for them.
- Canadian primary care doctors are considerably less likely than doctors in other countries to routinely review surveys on patient satisfaction and patient experiences. For example, in British Columbia, only 3 percent of practices request refills for prescriptions online, and 10 percent of practices request appointments or referrals online (17 percent vs. 47 percent) or to compare their performance with that of other primary care practices (17 percent vs. 37 percent). Figures in Figure 11 above may give some indications by province as to Health IT

sector. We can expect more advanced Health IT technologies to disrupt the broader healthcare sector, and Canadian companies will consequently be looking for global partners to be better prepared for the upcoming challenges to the health sector.

As strong allies, the United States and Canada could and should work together to improve health in both nations. An example occurred in November 2015, when more than 100 senior healthcare stakeholders—government officials, health professionals, academics and patient advocates—gathered in Washington, D.C., to participate in the inaugural Canada-U.S. Health Summit, a meeting dedicated to sharing information and building cross-border collaborations around common health priorities. One overarching conclusion from the Summit is that both countries face similar obstacles to improving healthcare, including the challenges brought by aging populations and cost pressures on the health system. Healthcare innovation examples

**Figure 12: Population and Language Information by Providence**

Location	Population	Percent	Language Policy
Canada	33,476,688	100%	Varies by Provence
Ontario	12,851,821	38%	Regionalized language policy: English and French
Quebec	7,903,001	24%	Officially French with support for English
British Columbia	4,400,057	13%	Officially English
Alberta	3,645,257	11%	Officially English with support for French
Manitoba	1,208,268	4%	Officially bilingual: English and French
Saskatchewan	1,033,381	3%	Officially English with support for French
Nova Scotia	921,727	3%	Officially English with support for French
New Brunswick	751,171	2%	Officially bilingual: English and French
Newfoundland and Labrador	514,536	2%	Officially English
Prince Edward Island	140,204	0%	Officially English with support for French
Northwest Territories	41,462	0%	Officially multilingual: English/French and others
Yukon	33,897	0%	Officially bilingual: English and French
Nunavut	31,906	0%	Officially multilingual: English/French and others

Sources: Canada Province Population 2011 Census -Retrieved February 7, 2016, <http://www12.statcan.gc.ca>; Language Policy, ([https://en.wikipedia.org/wiki/Language\\_policies\\_of\\_Canada%27s\\_provinces\\_and\\_territories](https://en.wikipedia.org/wiki/Language_policies_of_Canada%27s_provinces_and_territories)) Retrieved February 7, 2016.

from both countries demonstrated the translatable nature of innovation beyond national borders.<sup>xviii</sup>

**Challenges in the Market**

Canada is a highly decentralized federation with a mixed model of public and private healthcare delivery. Provincial/territorial (P/T) ministries of health delegate considerable administrative decision-making to quasi-public Regional Health Authorities (RHAs) in several provinces. Additionally, the delivery of most primary health services is private and therefore decentralized. As a result, many family physicians are profit-making professional contractors and are not directly employed by either the RHAs or P/T ministries of health. While hospitals are divided in ownership (some are owned by RHAs while others remain private) and are largely non-profit corporations, specialist physicians who provide acute services are usually private, independent contractors. Such a structure may create challenges for U.S. companies venturing into the market, particularly in the areas

of interoperability of electronic health records and exchange of health information.

Unequal population distribution and language variances by region are two additional considerations when deploying Health IT in Canada, as more than 80 percent of the population lives in urban areas. In addition, many regions in Canada are bilingual or multilingual.<sup>xix</sup> These challenges can be mitigated by developing pilot projects for entering the market and building bilingual/multilingual language platforms.

The health policy structure is very fragmented and varied by region, lacking a coherent governance and management structure featuring shared funding for Health IT. While healthcare in Canada is commonly referred to as "the Canadian Healthcare system", there are 14 single-payer, universal and public systems, including 10 provinces, three northern territories and the federal government, which deliver primary and supplementary health services to select populations.<sup>xx</sup> Here are several issues that

show the decentralized and fragmented nature of the Canadian Health IT system:<sup>xxi</sup>

- Uncoordinated licensure, qualifications and privileging across (and sometimes within) telehealth networks/programs;
- Limited/no interoperability of telehealth systems with EMRs, EHRs and other digital solutions;
- Telehealth technology being unavailable at key times/places during a patient and family's journey through the healthcare system (e.g., lack of integrated scheduling across health authorities in a given jurisdiction);
- Multiple, confusing fee codes and reimbursement schedules;
- Burdensome scheduling and booking processes;
- Uncertainty about which organizations should play the lead role in supporting and serving First Nations, Metis and Inuit depending on the location (urban, rural or remote).

The challenges articulated above may potentially provide opportunities for U.S. companies to enter and offer information on international best practices to local partners and policy makers, shaping the Health IT industry in Canada over time

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<sup>i</sup> Statistics Canada: <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo62a-eng.htm>.

<sup>ii</sup> Ibid.

<sup>iii</sup> Canadian Institute for Health Information: <https://www.cihi.ca/en/spending-and-health-workforce/spending>.

<sup>iv</sup> Information supplied by the U.S. Embassy in Canada.

<sup>v</sup> Information supplied by the U.S. Embassy in Canada.

<sup>vi</sup> "Canada - Healthcare Sector Will Benefit From Liberal Party's Fiscal Stimulus," BMI Daily Alert—Pharmaceuticals and Healthcare, October 29, 2015.

<sup>vii</sup> Canada's Economic Action Plan - Canada Health Infoway webpage: <http://actionplan.gc.ca/en/initiative/canada-health-infoway>.

<sup>viii</sup> Canada Health Infoway - Doing Business with Infoway webpage: <https://www.infoway-inforoute.ca/en/about-us/doing-business-with-infoway>.

<sup>ix</sup> Ibid.

<sup>x</sup> Canada's Economic Action Plan - Canada Health Infoway webpage: <http://actionplan.gc.ca/en/initiative/canada-health-infoway>.

<sup>xi</sup> More information about the Health Infoway investment programs can be found here: <https://www.infoway-inforoute.ca/en/what-we-do/progress-in-canada/investment-programs>.

<sup>xii</sup> Canadian Telehealth Report: 2015 - Canada's Health Informatics Association.

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<sup>xiii</sup> Transparency Market Research report: "Canada Home Healthcare Market - Industry Analysis, Size, Share, Growth, Trends and Forecast 2014 – 2020."

<sup>xiv</sup>

<http://www.transparencymarketresearch.com/pressreleases/canada-home-healthcare-market.htm>.

<sup>xv</sup> <http://www.prnewswire.com/news-releases/canada-home-healthcare-market---industry-analysis-size-share-growth-trends-and-forecast-2014--2020-300201257.html>.

<sup>xvi</sup>

<http://www.transparencymarketresearch.com/pressreleases/canada-home-healthcare-market.htm>.

<sup>xvii</sup> See Figures 9, 10, and 11.

<sup>xviii</sup> 2015 Canada-U.S. Health Summit summary report:

[http://pages.wilsoncenter.org/rs/219-MVU-643/images/Canada-US\\_Health\\_Summit\\_Summary\\_Report.pdf](http://pages.wilsoncenter.org/rs/219-MVU-643/images/Canada-US_Health_Summit_Summary_Report.pdf).

<sup>xix</sup> See Figure 12.

<sup>xx</sup> Healthcare Priorities in Canada: A Backgrounder: April 2014 - Canadian Foundation for Healthcare Improvement.

<sup>xxi</sup> Ibid.