

# Better Healthcare for Albertans

A Report by The Office  
of the Auditor General of Alberta

Research Material

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# About This Document

The purpose of this document is to provide the reader of our May 2017 report – titled *Better Healthcare for Albertans* with additional background information on several aspects of Alberta’s healthcare system: health funding, physician compensation, health human resources and health information systems. This document also describes the interconnected roles of a variety of stakeholders, provides an overview of recent trends in cost and quality of health service delivery and discusses the importance of determinants of health outside the healthcare system. In several parts of the document, readers are reminded of the role that elected officials play in shaping the health sector.

Initially developed as an internal information resource in the Office of the Auditor General of Alberta, this document was one of many sources used by the project team in the preparation of our *Better Healthcare for Albertans* report. This document does not provide comprehensive coverage of all aspects of Alberta’s healthcare system, and does not attempt a sector-by-sector analysis of healthcare (e.g., acute versus continuing care, inpatient versus ambulatory care, pediatric versus geriatric care). It also excludes any in-depth discussion on important areas of the healthcare system, such as mental health and addictions, primary care, chronic disease management and cancer. Also, subjects such as access to services, wait times, wait lists and bioethical issues (e.g., physician assisted death) have also not been touched on. However, we believe that the exclusions do not diminish the value of the document to a reader interested in better understanding the evolution of healthcare in Alberta, and some of the basic facts about our healthcare system.

## 1.1. Abbreviations

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AARP	Academic Alternative Relationship Plan	GSS	Good Samaritan Society
ABJHI	Alberta Bone and Joint Health Institute	HCPA	<i>Health Care Protection Act</i>
ACP	Alberta College of Pharmacists	HHR	Health Human Resources
AHCIP	Alberta Health Care Insurance Plan	HIA	<i>Health Information Act</i>
AHS	Alberta Health Services	HIDSA	<i>Hospital Insurance and Diagnostic Services Act</i>
AI	Alberta Innovates (formerly Alberta Innovates—Health Solutions)	HIS	Health Information Systems
AISH	Assured Income for the Severely Handicapped	HPA	<i>Health Professions Act</i>
AMA	Alberta Medical Association	HQCA	Health Quality Council of Alberta
ARP	Alternative Relationship Plan	HWF	Health Workforce
AUPE	Alberta Union of Provincial Employees	LPN	Licensed Practical Nurse
CARNA	College and Association of Registered Nurses of Alberta	MCA	<i>Medical Care Act</i>
CHA	<i>Canada Health Act</i>	MSI	Medical Services (Alberta) Incorporated
CIHI	Canadian Institute for Health Information	NHSF	Non-hospital Surgical Facility
CIS	Clinical Information System	NWMP	North West Mounted Police
CLPNA	College of Licensed Practical Nurses of Alberta	OAG	Office of the Auditor General of Alberta
CMHA	Canadian Mental Health Association	OIPC	Office of the Information and Privacy Commission
CPCSSN	Canadian Primary Care Sentinel Surveillance Network	PCN	Primary Care Network
CPSA	College of Physicians and Surgeons of Alberta	PMIS	Performance Measures Information System
CQI	Continuous Quality Improvement	RBB	Results-Based Budgeting
CSS	Catholic Social Services	RHA	Regional Health Authority
CYDL	Child and Youth Data Laboratory	RN	Registered Nurse
DIMR	Data Integration, Measurement and Reporting	RNA	Registered Nursing Assistant
EHR	Electronic Health Record	RSHIP	Regional Shared Health Information Platform
EMR	Electronic Medical Record	RxA	Alberta Pharmacists' Association
EPF	<i>Federal-Provincial Fiscal Arrangements and Established Programs Financing Act</i>	SCF	Shepherd's Care Foundation
FFS	Fee-for-Service	SOMB	Schedule of Medical Benefits
FTE	Full-time Equivalent	STARS	Shock Trauma Air Rescue Society
GOA	Government of Alberta	SUDP	Secondary Use Data Platform
		UNA	United Nurses of Alberta
		WCB	Workers' Compensation Board

# 1

## Alberta Healthcare System – An Overview

### 1. Introduction

Alberta's healthcare system is expected to provide services to 4.2 million Albertans, when and where they need care. The services are provided in complex and multiple settings because of the interplay among many different professional groups, organizations, patients and their family members. Caregivers include nurses, physicians, pharmacists, physical therapists, healthcare aides and many others. In addition to healthcare professionals, government officials and elected politicians play an important role in setting overall policy and meeting and managing expectations of Albertans.

Services are provided in a variety of care settings:

- Academic Care Centre
- Addictions Clinic
- Ambulance
- Ambulatory Clinic
- Cancer Centre
- Church
- Community Health Centre
- Corrections
- Dental Office
- Emergency Department
- Family Care Clinic
- Group Home
- Health Centre
- Home
- Hospice
- Hospital
- Laboratory
- Long-term Care
- Medicentres
- Mental Health Clinic
- Nursing Home
- Pharmacy (Community)
- Primary Care Clinic
- Public Health Centre
- Radiology Clinic
- Rehabilitation Centre
- School
- Specialty Clinic
- Supportive Living
- Urgent Care

Source: Alberta Health Services. *Request for Proposals for AHS Provincial Clinical Information System Solution*. Request for Proposals No: AHS-2015-2109.

## 2. History of Alberta's Healthcare System

### 2.1 Legislation

#### a) Before the 1920s

The *British North America Act* of 1867 gave provinces jurisdiction over most health services.<sup>1</sup> “The provinces were responsible for establishing, maintaining and managing hospitals, asylums, charities and charitable institutions.”<sup>2</sup>

Upon gaining provincial status in 1905, Alberta established a health branch under the jurisdiction of the Department of Agriculture. The *Public Health Act*, the first piece of health legislation in the province, was passed in 1907. The Act provided for the formation of a Provincial Board of Health consisting of five members with “authority to make and administer public health laws and to divide the province into health districts with local boards of health”<sup>3</sup> under the provincial board. The board collected vital statistics, managed local boards, and inspected hospitals, orphanages and jails.<sup>4</sup> In 1910, a revision to the Act reduced health laws to regulations that could be enforced by the provincial board.<sup>5</sup>

“The *Municipal Hospitals Act* was passed by the legislature in 1917, amended in 1918 and went into effect in May of that year,” transferring responsibility for public services to the municipalities. Under the Act, a municipal area could apply a tax to build and operate a hospital.<sup>6</sup> This essentially introduced an early form of hospital insurance<sup>7</sup> by providing for subsidized basic hospital care for a user fee of \$1 per day.<sup>8</sup> With the passage of the *Mothers' Allowance Act*, the year 1919 also marked the start of provincial assistance directly to Albertans in need, benefiting in-need mothers with dependent children.<sup>9</sup>

The *Department of Public Health Act* was passed in 1919, establishing the first Department of Public Health in Alberta.<sup>10</sup> Alberta was the second province in Canada to establish a Department of Public Health.<sup>11</sup>

The department was responsible for distributing funds, overseeing the creation of hospital districts, supervising hospitals, approving municipal plans related to health issues such as sewage and waterworks, and supervising all hospital activities.<sup>12</sup> Provincial hospitals formed the Alberta Hospital Association in 1919.<sup>13</sup>

The first district hospitals, then known as municipal hospitals, came into operation in 1919.<sup>14</sup> Hospital districts were quasi-municipal jurisdictions created subject to the approval of a plebiscite of ratepayers. The hospital districts had “boundaries encompassing all or parts of several municipalities.”<sup>15</sup> “A district board was empowered to levy local property taxes in a manner similar to that available to a municipal council.”<sup>16</sup>

1 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

<http://www.pearsoncanada.ca/media/highered-showcase/multi-product-showcase/wade-2-ch03.pdf>.

2 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

3 Alberta Health (1991, p. 29).

4 Sommerville and Defries (1959, p. 10); [http://www.canadiansocialresearch.net/Alberta\\_welfare\\_history.pdf](http://www.canadiansocialresearch.net/Alberta_welfare_history.pdf) p. 15.

5 Alberta Health (1991, p. 29); AMA (Undated).

6 Sommerville and Defries (1959, p. 17).

7 Jamieson (1947, p. 84).

8 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 653.

9 Reichwein (2007, p. 11).

10 Alberta Health (1991, pages 9 & 29).

11 Alberta Health (1991, p. 29); <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428259> p. 23; Sommerville and Defries (1959, p. 9).

12 <https://hermis.alberta.ca/paa/Details.aspx?ObjectID=GR0013&cdv=True&deptID=1>.

13 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 655; Sawyer et al (2006, p. 133).

14 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 655.

15 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 655.

16 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 655.

The Public Health Nursing Service was established in 1918<sup>17</sup> to carry out preventive healthcare and provide public health education. Nurses began to “inspect school children, interview parents and give health lectures.”<sup>18</sup> “The *Public Health Nurses’ Act* came into force on May 17, 1919.”<sup>19</sup>

## b) The 1920s to 1960s

The *Sexual Sterilization Act* was passed in 1928.<sup>20</sup> The Act allowed for sterilization of mentally challenged persons and was repealed in 1972.<sup>21</sup> The *Public Health Act* was amended in 1929.<sup>22</sup> The amendment gave the minister the “power to establish health districts where requested,”<sup>23</sup> thus encouraging the spread of local healthcare facilities (e.g., hospitals, personal care homes, laboratories and clinics). According to Parsons and Moore (1993):

The first health units to cover wide regions were established in Red Deer and High River–Okotoks in 1931. During the first three years, the cost of operating each facility was shared by the provincial government (50 percent), the Rockefeller Foundation (25 percent) and the local authority (25 percent). Health unit functions were carried out by a full-time Medical Officer of Health, a hygienist, a nurse and a secretary. Their activities included examination of school children, education, hygiene inspection, vaccinations and inoculations, and control of contagious diseases.<sup>24</sup>

The *Tuberculosis Act* came into force in 1936.<sup>25</sup> It provided free diagnosis and treatment to all Alberta residents (Alberta Health, 1991: p.2). Alberta was the second province (after Saskatchewan) in Canada to legislate free treatment of infectious tuberculosis in sanatoria.<sup>26</sup> The Government of Alberta (GOA) was the first in Canada to offer aftercare to those contracting polio, with rehabilitation starting in 1938.<sup>27</sup>

In 1947 the *Public Welfare Act* was amended, giving the GOA “responsibility for the hospitalization of old age pensioners, blind pensioners, etc.”<sup>28</sup> Women receiving mother’s allowance, and their dependants, were also covered.<sup>29</sup> The new provincial program benefited the citizens most in need, as old age pension was made available only to senior citizens with very little income.

The GOA passed the *Nursing Aides Act* in 1947, licensing the Certified Nursing Aide.<sup>30</sup> In the 1950s, the *Nursing Services Act* “expanded district nursing services to assist villages and rural municipalities to appoint public health nurses.”<sup>31</sup> The *Health Unit Act* was passed in 1952.<sup>32</sup> The Act “allowed a system of dividing the province into health units, each with its own board and system of administration, with 60 per cent of its budget supported by the province.”<sup>33</sup> In addition, the great polio epidemic prompted the GOA to increase services covering practically the entire polio treatment requirements and to help municipalities build senior citizen homes.<sup>34</sup>

The federal *Hospital Insurance and Diagnostic Services Act* was proclaimed in 1957, “setting up prepaid coverage for necessary hospital care for virtually all Canadians.”<sup>35</sup> The Act provided 50/50 cost-sharing for provincial and territorial hospital insurance plans.<sup>36</sup>

17 Reichwein (2007, p. 11); Alberta Medical History Fact Sheet (AMA, Undated); Jamieson (1947, p. 76).  
18 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428259> p. 22.  
19 Reichwein (2007, p. 11).  
20 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 38; Alberta Health (1991, p. 30); Jamieson (1947, p. 80).  
21 Reichwein (2007, p. 13).  
22 <http://www.robertlampard.ca/Books/Alberta%20Medical%20History.pdf> p. 305.

23 Reichwein (2007, p. 13). See also Alberta Health (1991, p. 31); Jamieson (1947, p. 82).  
24 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428259> p. 24. See also Jamieson (1947, p. 82); Carney (1994, p. 23).  
25 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 41; Alberta Health (1991, p. 2); Jamieson (1947, p. 81).  
26 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428259> p. 26.

27 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428259> p. 25. See also Alberta Health (1991, p. 31); <http://www.robertlampard.ca/Books/Alberta%20Medical%20History.pdf> p. 682.  
28 <http://www.robertlampard.ca/Books/Alberta%20Medical%20History.pdf> p. 656; see also Jamieson (1947, p. 86).  
29 Jamieson (1947, p. 86); Alberta Health (1991, p. 32).  
30 <http://www.clpna.com/about-clpna/history-of-alberta-lpns/>.  
31 Sommerville and Defries (1959, p. 9).

32 Carney (1994, p. 26).  
33 Reichwein (2007, p. 15).  
34 Reichwein (2007, p. 15).  
35 Alberta Health (1991, p. 3). See also <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 57; <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.  
36 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>; <http://www.robertlampard.ca/Books/Alberta%20Medical%20History.pdf> p. 14.



“By the early 1960s, almost 90 per cent of the population in Alberta had access to public health services.”<sup>37</sup> With the passage of the *Auxiliary Hospitals Act* in 1960<sup>38</sup> and the *Nursing Home Act* in 1964,<sup>39</sup> auxiliary hospitals and nursing homes came under the jurisdiction of the government.

In 1966, the *Department of Health Act* replaced the *Department of Public Health Act*, creating the Department of Health. The new department had two sections, Hospital Services and All Other Services, each headed by a deputy minister.<sup>40</sup> This reorganization marked a change in the administration of health services.

The GOA entered the realm of prepaid medicine in 1967.<sup>41</sup> The GOA “entered into an agreement with the federal government for the purpose of obtaining 50/50 cost sharing of all financial assistance costs in Alberta.”<sup>42</sup> Alberta passed *The Alberta Health Plan Act* to let as many people as possible buy a healthcare insurance package. The plan did not cover groups; instead, it offered contracts to individuals, permitting coverage for high-risk people with a continuation of the subsidy program. Seniors and their dependants were not required to pay premiums.

During the late 1960s, the GOA “took steps to assume complete responsibility for the administration of public health funds.”<sup>43</sup> The *Alberta Health Care Insurance Act* was passed in 1969,<sup>44</sup> “establishing the Health Care Insurance Commission to administer the new Alberta Health Care Insurance Plan.”<sup>45</sup> The plan allowed Alberta to “obtain cost-sharing from the federal government under the *Medical Care Act* (1966).”<sup>46</sup>

### c) The 1970s and Onward

The Registered Nursing Assistant (RNA) designation was created in 1978 through the passing of the *Nursing Assistant Registration Act*.<sup>47</sup> The title was changed in 1990 to Licensed Practical Nurse (LPN), and the organization’s name was changed to the College of Licensed Practical Nurses of Alberta (CLPNA) in 1998.<sup>48</sup>

In 1984, the *Canada Health Act* was passed.<sup>49</sup> The main objectives of the Act were to protect, promote and restore the mental and physical well-being of Canadians and to facilitate reasonable access to health services without financial or other barriers. Under the Act, Albertans received full coverage for medically necessary physician and hospital services.

In the mid- to late 1990s, focus was placed on the integration and strategic planning of Alberta’s health system. The following key developments occurred:

- In 1994, over 200 separate boards and administrations were replaced by 17 new regional health authorities.<sup>50</sup>
- Wellnet, an initiative to develop a province-wide electronic health record system, was launched in 1997.<sup>51</sup>
- The Ministry of Health and Wellness was established in 1999 under the authority of the *Government Organization Act* to set policies to lead, achieve and sustain a responsive, integrated and accountable health system.

37 Reichwein (2007, p. 16).

38 Alberta Health (1991, p. 3).

39 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 68; Alberta Health (1991, p. 3).

40 Alberta Health (1991, p. 9). Parsons and Moore (1993) identify the two sections as Hospital Services and Health Services; <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428259> p. 29.

41 Alberta Health (1991, p. 3).

42 [http://www.canadiansocialresearch.net/Alberta\\_welfare\\_history.pdf](http://www.canadiansocialresearch.net/Alberta_welfare_history.pdf) p. 24.

43 Reichwein (2007, p. 17).

44 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 68; <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.<sup>45</sup> Alberta Health (1991, p. 3).

46 Alberta Health (1991, p. 3).

47 <http://www.clpna.com/about-clpna/history-of-alberta-lpns/>.

48 <http://www.clpna.com/about-clpna/history-of-alberta-lpns/>.

49 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 89.

50 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 100; Reichwein (2007, p. 19).

51 AMA (Undated).

A ground-breaking eight-year trilateral master agreement between the Alberta Medical Association (AMA), Alberta Health and the regional health authorities came into effect in 2003.<sup>52</sup> The agreement was a formal arrangement between the physicians and regional health authorities to provide health services.

In 2009, focus was placed on the affordability of health services. Alberta Health Care Insurance Plan (AHCIP) premiums were no longer collected from Albertans. The second phase of a pharmaceutical strategy was unveiled to reduce generic drug costs, provide faster access to new drugs and expand the role of pharmacists to better meet patient needs.

For a timeline of the evolution of key health legislation, see Appendix A.

## 2.2 Service Provision

### a) Before the 1920s

The North West Mounted Police (NWMP) built and staffed Alberta's first hospitals.<sup>53</sup>

- Fort Macleod – 1874
- Fort Walsh – 1875
- Calgary – 1883

“The NWMP hospitals were open to the public for emergencies only.”<sup>54</sup> The NWMP and local miners cooperatively built a hospital in Lethbridge in 1877 (Alberta Health, 1991: p.1). In 1881, the Grey Nuns established in St. Albert the first non-NWMP hospital, which was staffed with untrained nurses.<sup>55</sup> New communities arose and hospitals were built as Canadian Pacific Railway construction expanded in Alberta. “The first community hospitals were opened in Medicine Hat (1890), Calgary (1890), Lethbridge (1891), Fort Macleod (1893) and Edmonton (1895).”<sup>56</sup>

In 1889, prepaid medical care was introduced in Alberta. To fund operation of the hospital in Medicine Hat, the board of directors agreed to provide accommodation and medical services for one year to anyone who purchased a “Five Dollar Ticket.”<sup>57</sup> Hundreds of individuals enrolled in this offer.

With the increasing number of hospitals, emphasis in the early 1900s was placed on the healthcare profession and education. The *Medical Profession Act* was passed in 1905, and the College of Physicians and Surgeons of Alberta (CPSA) and AMA were formed in 1906.<sup>58</sup>

The CPSA was responsible for licensing and disciplining members. The AMA was formed chiefly as an educational body that was involved in setting standards for medical care. In 1913, the University of Alberta established the first Faculty of Medicine in Alberta.<sup>59</sup> In 1916, the College and Association of Registered Nurses of Alberta (CARNA) was formed under the Alberta *Registered Nurses' Act*.<sup>60</sup> According to Thomson (2008):<sup>61</sup>

52 [https://www.albertadoctors.org/Publications%20-%20ADD/pub\\_add\\_julaug11\\_pub.pdf](https://www.albertadoctors.org/Publications%20-%20ADD/pub_add_julaug11_pub.pdf) p.9; see also AMA (Undated).

53 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 12; Jamieson (1947, p. 89); <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 653; <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428229> p. 1.

54 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 4.

55 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> pages 5 & 684; <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428229> p. 1.

56 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 4.

57 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428270> p. 33.

58 AMA (Undated).

59 AMA (Undated).

60 [http://www.nurses.ab.ca/content/dam/carna/pdfs/Fonds/district\\_fonds\\_part2.pdf](http://www.nurses.ab.ca/content/dam/carna/pdfs/Fonds/district_fonds_part2.pdf) p. 19; <http://www.nurses.ab.ca/content/carna/home/learn-about-carna/museums---archives/nursing-education/setting-standards-of-excellence.html>

61 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 653; <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428299> p. 2.

Under the *Municipal Hospitals Act* of 1918, the government had introduced a form of hospital insurance providing basic hospital care for ratepayers at \$1 per day user fee. A non-ratepayer could secure coverage by purchasing a \$10 “ticket.” Beyond a provincial per diem grant, further revenue came from each hospital board’s power to requisition funds from municipalities within the hospital district.

## b) The 1920s to 1960s

GOA health initiatives between the 1920s and 1940s included:

- 1920     hospital dedicated to the treatment of tuberculosis was built<sup>62</sup>
- 1922     government began to distribute insulin via mail to all people with diabetes<sup>63</sup>
- 1924     Alberta’s Travelling Clinics provided doctor examinations, small pox vaccinations, dental inspections and dental treatment for children<sup>64</sup>
- 1928     Alberta first province to provide special facilities to treat polio and care for polio victims<sup>65</sup>
  - mental health clinics established in Calgary and Edmonton (1929), Lethbridge (1930) and Medicine Hat (1931)<sup>66</sup>
- 1938     Alberta first province to offer aftercare to polio victims<sup>67</sup>
  - *Cancer Treatment and Protection Act* passed in 1940, enabling people to receive free diagnosis and treatment of cancer<sup>68</sup>
- 1941     Alberta established first free cancer services program in Canada<sup>69</sup>
- 1945     *Maternity Hospitalization Act* provided free hospital care related to childbirth in 1945.<sup>70</sup> “Under the legislation, women were entitled to up to 12 days standard ward hospitalization for obstetrical services at public expense,”<sup>71</sup> and \$15 was given to poor expectant mothers.<sup>72</sup> Free maternity hospitalization was extended to all maternity patients five years later.
- 1947     Provincial-Municipal Hospitalization Plan began “providing free hospitalization and treatment for persons receiving old age and blind pensions or mother’s allowance”<sup>73</sup>

“By the end of 1945, of 92 approved general hospitals, religious groups operated 39, hospital districts (including Lloydminster) 35, community organization and local municipalities 17, and the province one.”<sup>74</sup>

As a form of health insurance, Alberta set up Medical Services (Alberta) Incorporated (MSI), “offering medical, surgical and obstetrical services to subscribers”<sup>75</sup> in 1948. The Alberta Blue Cross Plan was launched shortly after. “Initially, the plan provided a full range of hospital services, upon payment of a monthly subscription of \$2 per family, for members of employed groups and their dependents.”<sup>76</sup>

62 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 8.

63 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 38.

64 Alberta Health (1991, p.30); Jamieson (1947, p. 79).

65 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 38; Alberta Health (1991, pages 2 & 31); <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p.682; Jamieson (1947, p. 84).

66 Alberta Health (1991, p. 2); <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 349.

67 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 612; Alberta Health (1991, p.31).

68 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 50; Alberta Health (1991, p. 2); <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428299> p. 28.

69 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> pages 612 & 682; Alberta Health (1991, p. 32).

70 Alberta Health (1991, p. 31).

71 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428299> p. 6.

72 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428299> p. 27.

73 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 50; See also: Alberta Health (1991, p. 9 & 32).

74 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 654; <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428299> p. 5.

75 AMA (Undated).

76 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 656

Alberta created a limited provincial hospital insurance plan on July 1, 1950.<sup>77</sup> Under the Municipal Hospitalization Plan or the Dollar-a-Day Hospitalization Plan, “residents obtained hospitalization benefits in their local municipal hospital for \$1 per day.”<sup>78</sup> The hospital district obtained the rest of its funding from its municipality.

“Changes in the *Municipal Hospitals Act* in 1950 permitted municipalities outside a hospital district to contract out their hospital requirements to a hospital in a nearby district. The hospital provided basic care and the municipality assumed all approved basic costs above the \$1 per day user fee and the province then reimbursed the municipality for one-half its costs.”<sup>79</sup>

“By the end of the 1950s, 93 per cent of the population in Alberta was covered by services extended by health units.”<sup>80</sup> The Provincial Air Ambulance Emergency Service went into operation January 1, 1959.<sup>81</sup> “By 1960 there were 80 municipal hospital districts in the province. Fifty of them operated their own hospitals, nine were served by voluntary hospitals and 12 had no hospitals.”<sup>82</sup>

The Alberta Certified Nursing Aide Association incorporated under the *Societies Act* in 1961 with a membership of 443 and 12 chapters.<sup>83</sup> In 1963, to support training of nurses, the GOA introduced grants to hospitals with training schools. The grants provided \$300 for each nurse who graduated.<sup>84</sup>

In 1963, the Alberta Medical Plan came into effect,<sup>85</sup> offering full medical services for all Albertans. It was a basic health insurance policy individuals could purchase from a private carrier.<sup>86</sup> A government subsidy was introduced for lower-income citizens.<sup>87</sup> In 1966, the plan extended to Alberta Blue Cross membership.<sup>88</sup> “The plan now covered medical services, preferred hospital accommodation, drugs and specified appliances.”<sup>89</sup>

In 1967, the Faculty of Medicine at the University of Calgary was established.<sup>90</sup> The measles vaccine was made available in 1969.<sup>91</sup>

### c) The 1970s and Onward

The 1970s saw major reforms in mental health and services for people with disabilities.<sup>92</sup> The deinstitutionalization of special needs populations affected “not only the clientele serviced, but also service providers, including public health professionals.”<sup>93</sup>

The *Mental Health Act* was passed in 1972, “shifting the focus of care from institutions to communities.”<sup>94</sup>

In 1973 the GOA “initiated 100 per cent funding of health unit costs.”<sup>95</sup> Services provided by the health units also increased, as home care, and dental and nutritional programs for specific population groups were added.<sup>96</sup>

77 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

78 Alberta Health (1991, p. 12); see also: <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 57.

79 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 653.

80 Reichwein (2007, p. 15); Carney (1994, p. 26).

81 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428229> p. 29.

82 Alberta Health (1991, p. 12).

83 <http://www.clpna.com/about-clpna/history-of-alberta-lpns/>.

84 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428299> p. 28.

85 Alberta Health (1991, p. 3).

86 Alberta Health (1991, p. 3).

87 Alberta Health (1991, p. 3).

88 Alberta Health (1991, p. 3).

89 Alberta Health (1991, p. 3).

90 AMA (Undated).

91 Reichwein (2007, p. 17).

92 Reichwein (2007, p. 17).

93 Reichwein (2007, p. 17); see also: Alberta Health (1991, p. 4 & 25).

94 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 75.

95 Alberta Health (1991, p. 4; see also p. 22). See also: <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 75;

<http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428259> p. 24;

<http://www.ourfutureourpast.ca/medhist/page.aspx?id=2016329> p. 78.

96 Reichwein (2007, p. 17).

The United Nurses of Alberta (UNA) was established in 1977,<sup>97</sup> representing registered nurses, registered psychiatric nurses, students and allied healthcare professionals. UNA's role was to negotiate collective agreements and participate in debates on health policy in Alberta.

In 1978, "Alberta Hospitals and Medical Care assumed responsibility for the activities of the former Alberta Hospital Services Commission and the Alberta Health Care Insurance Commission."<sup>98</sup> Legislation was passed giving health units the authority and budget to provide home care programs.<sup>99</sup>

In 1980 Alberta became the first province in Canada to establish a fully accredited community mental health service.<sup>100</sup>

In 1985, the Lions Air Services was formed to provide helicopter ambulance service to rural areas.<sup>101</sup> A single helicopter was acquired, operating from a Calgary base. Later, the name was changed to Alberta's Shock Trauma Air Rescue Society (STARS). An Edmonton base was added in 1991, and a Grande Prairie base in 2006.<sup>102</sup>

In 1985, the GOA announced the first de-insurance for optometric services.<sup>103</sup> In 1986, the GOA and the AMA have agreed to end extra billing in the province.<sup>104</sup> A number of medically non-necessary services such as routine eye examinations and sterilization were de-insured in 1987.<sup>105</sup> Provincial and territorial governments in Canada (except Quebec) signed "reciprocal billing agreements for physician services provided out-of-province/territory" in 1988.<sup>106</sup>

"In the 1990s, in an effort to reduce public healthcare costs and to balance their budgets, most provinces limited the coverage provided under their healthcare insurance plans."<sup>107</sup> Under the *Canada Health Act* (CHA), insured health services must be fully insured by provincial healthcare insurance plans. Insured health services are medically necessary hospital, physician and surgical-dental services (performed by a dentist in a hospital, where a hospital is required for the proper performance of the procedure) provided to insured persons.

Alberta Health considers the professional judgement of a physician to determine what insured services are deemed medically necessary. Given that the Act defines "medically necessary services" broadly, the range of de-insured (de-listed) healthcare services varies by province. In Alberta, the Minister of Health determines which services are covered by the Alberta Health Care Insurance Plan (AHCIP). Section 12 of the *Alberta Health Care Insurance Regulation*<sup>108</sup> defines which services are considered not insured. Section 4(2) of the *Hospitalization Benefits Regulation*<sup>109</sup> provides a list of hospital services considered not insured.

Any changes to the insured physician services listed in the Schedule of Medical Benefits (SOMB) are the result of negotiations between the Alberta Ministry of Health and the AMA. In the past, AHS was also a signatory, but was not included in the current agreement. Although there is no formal agreement between dentists and the Alberta Ministry of Health, the department of health meets with members of the Alberta Dental Association and College to discuss changes to the Schedule of Oral and Maxillofacial Surgery Benefits. All changes to the benefit schedule require ministerial approval.

For current basic services covered by the AHCIP, and non-insured health services in Alberta, see subsection 4. Most provinces have de-insured some services previously covered under their public healthcare insurance plans.

97 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 75.

98 Alberta Health (1991, p. 4).

99 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 75.

100 Alberta Health (1991, pages 5 & 25).

101 AMA (Undated).

102 <http://www.stars.ca/who-we-are/history>.

103 <http://www.collegeofoptometrists.ab.ca/about-history.asp>.

104 Alberta Health (1991, p. 6); see also: <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 89.

105 Alberta Health (1991, p. 6).

106 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

107 <http://www.lop.parl.gc.ca/content/lop/researchpublications/944-c.htm>.

108 [http://www.qp.alberta.ca/documents/Regs/2006\\_076.pdf](http://www.qp.alberta.ca/documents/Regs/2006_076.pdf).

109 [http://www.qp.alberta.ca/documents/Regs/1990\\_244.pdf](http://www.qp.alberta.ca/documents/Regs/1990_244.pdf).

*DynaLIFE* was established to “serve patients, physicians, hospitals and pharmaceutical, government and industrial clients.”<sup>110</sup> *DynaLIFE* is contracted<sup>111</sup> by AHS to provide diagnostic testing services. The headquarters and main testing facility is located in Edmonton.

In 1995, the responsibility for public health shifted from health units (which were located in every city, town and rural area of the province) to regional health authorities (Carney 1994).

Provincial legislation passed in 2000 facilitated separation of the Alberta Pharmacists Association (RxA) and the Alberta College of Pharmacists (ACP) into two independent organizations. The RxA “promotes the value of pharmacists in supporting and advancing the health of Albertans.”<sup>112</sup> The ACP registers and licenses pharmacists and pharmacy technicians, measures and supports the competence of pharmacists and resolves complaints.<sup>113</sup>

In March 2006, the University of Alberta opened the first School of Public Health in Canada.<sup>114</sup> In 2008, 16 Catholic healthcare facilities combined to form a single board and administration called Covenant Health. “Covenant Health is Canada’s largest Catholic healthcare organization.”<sup>115</sup> In 2011, Covenant Health had a caregiver sum total of over 15,000 (physicians, employees and volunteers) servicing 12 communities in Alberta.<sup>116</sup>

Further efforts in 2009 were made toward a provincial approach to managing health services. The AHS Board was formed to combine the regional health authorities, the Alberta Mental Health Board, the Alberta Cancer Board and the Alberta Alcohol and Drug Abuse Commission. The AHS Board is responsible for delivering health services to the entire province and is accountable to the Minister of Health. See Appendix B for a timeline of changes in the provision of health services.

## 2.3 Evolution of Funding

### a) Before the 1920s

Early hospitals were locally run, stand-alone facilities that relied on fundraising, local taxes and the influence of elected members to stay open.

“The hospitals were autonomous institutions run by charitable organizations, local groups and sometimes by local governments.”<sup>117</sup> With increasing costs and demand, broader participation became necessary, at first municipally, then provincially and then eventually federally.<sup>118</sup> Government financial involvement began in 1889 when St. Albert Hospital was given \$100 and Medicine Hat General Hospital was given \$500.<sup>119</sup>

### b) The 1920s to 1960s

As governments used their spending power to set healthcare delivery policy, local independence diminished. While the GOA assumed the responsibility for a number of healthcare programs, funding of general hospitals was limited to a per diem grant. In 1945, total funding was less than \$1 million, with general hospitals receiving \$0.45 per patient per day.<sup>120</sup>

110 <https://www.dynalifedx.com/DynaLIFECommunity>.

111 <http://globalnews.ca/news/2277514/ahs-extends-lab-services-contract-with-dynalife/>.

112 <http://www.rxa.ca/about-rxa.aspx>.

113 <https://pharmacists.ab.ca/who-we-are>.

114 Reichwein (2007, p. 22).

115 <https://www.covenanthealth.ca/corporate-information>.

116 <https://www.covenanthealth.ca/resources/pdf/2011%20Annual%20Report.pdf>.

117 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 653.

118 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 653; <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428229> p. 1.

119 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 12; Alberta Health (1991, p. 1).

120 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428299> p. 6.



By the eve of the Second World War, the federal government was providing cost-sharing conditional grants to all provinces for the establishment of healthcare programs.<sup>121</sup> Federal funding began to shape policy in areas strictly outside its jurisdiction, while provinces organized and delivered the services. “This cost-matched, conditional grant system, with its origins in the 1920s and 1930s, was the federal financial instrument underpinning the post-Second World War expansion and modernization of provincial hospital infrastructures and the public health insurance systems.”<sup>122</sup>

The Alberta Social Credit government passed the *Maternity Hospitalization Act* in 1944.<sup>123</sup> The Act provided free Maternity Care and a grant for home care. The introduction of the Act marked the “first direct provincial contribution to financing general hospital services.”<sup>124</sup>

In 1944 Saskatchewan took the first steps toward a fully funded health system.<sup>125</sup> The *Hospital Insurance Act* came into effect on January 1, 1947, guaranteeing every citizen of Saskatchewan hospital care without a fee.<sup>126</sup> This marked the introduction of a province-wide, universal hospital care plan.<sup>127</sup>

A universal, provincial medical insurance plan to provide doctors’ services to all Saskatchewan residents was introduced in 1962.<sup>128</sup>

In 1947, a federal National Health Grants Program was introduced to provide financial aid for health-related initiatives.<sup>129</sup> Also introduced were the Professional Training Grant for the training of healthcare personnel and the Hospital Construction Grant for the construction of new hospital facilities.<sup>130</sup> In conjunction with the grants, the Department of National Health and Welfare issued guidelines with minimum building standards for hospital facilities. Most provinces, including Alberta, adopted standards that were similar to the federal guidelines.

Government financial support to health units after the passage of the *Health Unit Act* in 1952 amounted to 60 per cent of the budget of the health unit board.<sup>131</sup>

In 1957 the federal *Hospital Insurance and Diagnostic Services Act* was passed.<sup>132</sup> The Act reimbursed half of provincial and territorial costs pertaining to specified hospital and diagnostic service plans. The *Alberta Hospitalization Benefits Act*,<sup>133</sup> passed in 1958, created a cost-sharing agreement with the federal government whereby the province received funds for 46 per cent of the cost of providing in-patient hospital service and operating costs of the Alberta Hospitalization Plan.<sup>134</sup> “The Alberta Hospitalization Plan of 1957 completely covered hospitalization costs and reduced the need for municipal contribution.”<sup>135</sup> In 1959, capital debt, renovations and hospitalization in chronic care institutions were incorporated in the Hospitalization Plan (Alberta Health 1991: p. 3 and 9).

121 [http://web.uvic.ca/~ostry/selected\\_publications/health\\_services/2006\\_Ostry\\_Canada's\\_Health\\_Care\\_System.pdf](http://web.uvic.ca/~ostry/selected_publications/health_services/2006_Ostry_Canada's_Health_Care_System.pdf) p. 13.

122 [http://web.uvic.ca/~ostry/selected\\_publications/health\\_services/2006\\_Ostry\\_Canada's\\_Health\\_Care\\_System.pdf](http://web.uvic.ca/~ostry/selected_publications/health_services/2006_Ostry_Canada's_Health_Care_System.pdf) p. 13.

123 Alberta Health (1991; p.31); <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 692; Jamieson (1947, p. 82).

124 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428299> p. 6.

125 <http://medicare50years.blogspot.ca/2011/08/unsung-heroes-in-saskatchewan-struggle.html>.

126 <http://esask.uregina.ca/entry/medicare.html>.

127 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>;

<http://www.law.harvard.edu/programs/lwp/healthc.pdf>.

128 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>;

<http://www.historymuseum.ca/cmcl/exhibitions/hist/medicare/medic-2k03e.shtml>.

129 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 655.

See also <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

130 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 655;

<http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

131 Reichwein (2007, p. 15).

132 Alberta Health (1991, p. 3); <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 57;

<http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

133 Alberta Health (1991, p. 3).

134 Alberta Health (1991, p. 9); Sommerville and Defries (1959, p. 17);

<http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

135 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428299> p. 2.

The federal *Medical Care Act* was passed in 1966, providing “50/50 cost sharing for provincial/territorial medical insurance plans.”<sup>136</sup> It came into force on July 1, 1968. The Canada Assistance Plan was also introduced, providing cost-sharing for social services, including healthcare not covered in hospital plans, for those in need.

In 1966, the Alberta Medical Plan was extended to Alberta Blue Cross membership.<sup>137</sup> “The plan now covered medical services, preferred hospital accommodation, drugs and specified appliances.”<sup>138</sup>

During the 1960s and the early 1970s, the provincial government “took steps to assume complete responsibility for the administration of public health funds.”<sup>139</sup>

### c) 1970s and Onward

In 1973, there were 27 health units. “The government undertook to fund all public health programs, including 100 per cent of approved health unit budgets.”<sup>140</sup> Full funding of all health unit budgets, including “local Boards of Health of Edmonton and Calgary and the federal areas of Banff, Jasper and Waterton National Parks,”<sup>141</sup> was aimed at addressing inequality of service. “Dental and nutritional programs for specific and limited population groups were added to health unit services, and home care programs were introduced to be administered from health units.”<sup>142</sup>

With the increasing costs of providing health services, cost-sharing was replaced with block funding (cash payments and tax points) under the *Federal Provincial Fiscal Arrangements and Established Programs Financing (EPF) Act* of 1977.<sup>143</sup>

The first provincially funded medical research program in Canada was developed in 1980 through the formation of the Alberta Heritage Foundation for Medical Research.<sup>144</sup> The foundation was initially funded through an endowment of \$300 million dollars.<sup>145</sup>

In 1984, the *Canada Health Act* (CHA) was passed.<sup>146</sup> To receive full federal funding for healthcare, provincial and territorial health insurance plans had to meet the following five criteria:<sup>147</sup>

- **public administration** – plans must be administered and operated on a nonprofit basis by a public authority accountable to the provincial or territorial government
- **comprehensiveness** – plans must ensure all medically necessary services are provided by hospitals, medical practitioners and dentists working in a hospital setting
- **universality** – plans must entitle all insured people to health insurance coverage on uniform terms and conditions
- **accessibility** – plans must provide all insured people reasonable access to medically necessary hospital and physician services without financial or other barriers
- **portability** – plans must cover all insured people when they move to another province or territory of Canada and when they travel abroad

136 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

137 Alberta Health (1991, p. 3).

138 Alberta Health (1991, p. 3).

139 Reichwein (2007, p. 17).

140 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428259> p. 24.

141 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=2016329> p. 78.

142 Reichwein (2007, p. 17).

143 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>

144 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 89; <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 683.

145 AMA (Undated).

146 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 89; <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>

147 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>



“Medicare in Canada is a government-funded universal health insurance program established by legislation passed in 1957, 1966 and 1984.”<sup>148</sup> “The common understanding is that Alberta adopted a publicly funded healthcare system in late 1950s when publicly funded hospital insurance was introduced. Subsequently, coverage was expanded to include all services provided by physicians in the late 1960s.”<sup>149</sup> Transfers from the Government of Canada constituted 21.5 per cent (\$4.24 billion) of the total 2016–17 funding of \$19.7 billion for the department of health.<sup>150</sup> The ministry spends \$2.4 million every hour – approximately \$58 million per day, “to maintain and improve Alberta’s healthcare system.”<sup>151</sup> For a chronology of changes in health funding, see Appendix C.

### 3. Determinants of Health

A person’s physical and mental health is determined by the complex interactions between social and economic factors, their physical environment and their individual behaviour.

Determinants of health do not exist in isolation from each other – these aspects of health combine to determine an individual’s health status.

An approach based on population health identifies the interactions between factors that contribute to the overall health status of an individual. This approach allows:

- a focus on root causes of a problem
- efforts to prevent the problem
- improving societal health status, while considering special needs/ vulnerabilities of subpopulations
- a focus on partnerships and intersectoral co-operation
- finding flexible and multidimensional solutions for complex problems
- public involvement and community participation

The determinants of health, as defined by Health Canada, are:<sup>152</sup>

- **income and social status** – Health status improves at each step up the income and social hierarchy. High income determines living conditions such as safe housing and ability to buy sufficient good food.
- **social support networks** – Support from families, friends and communities is associated with better health. Social support networks help people solve problems and deal with adversity, and maintain a sense of mastery and control over life circumstances.
- **education and literacy** – Health status improves with level of education. Education is closely tied to socioeconomic status, and effective education for children and lifelong learning for adults are key contributors to health and prosperity for individuals, and for the country.
- **employment and working conditions** – Unemployment, underemployment, stressful or unsafe work are associated with poorer health.

148 <http://www.historymuseum.ca/cmc/exhibitions/hist/medicare/medic01e.shtml>

149 John Church (June 2012, Personal communication).

150 <http://www.health.alberta.ca/documents/Funding-Health-2016-17-Q2-Sources.pdf>

151 <http://www.health.alberta.ca/about/health-funding.html>

152 [http://www.phac-aspc.gc.ca/ph-sp/determinants/index-eng.php#key\\_determinants](http://www.phac-aspc.gc.ca/ph-sp/determinants/index-eng.php#key_determinants);

see also <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 25.

- **physical environments** – At certain levels of exposure, contaminants in the air, water, food and soil can cause a variety of adverse health effects. In the built environment, factors related to housing, indoor air quality and the design of communities and transportation systems significantly influence the physical and psychological well-being of individuals.
- **social environments** – The array of values and norms of a society influence in varying ways the health and well-being of an individual and populations. Social stability, recognition of diversity, safety, good working relationships and cohesive communities provide a supportive society that reduces or avoids many potential risks to good health.
- **healthy child development** – Effects of early experiences on brain development, early child development and school readiness affects an individual's health throughout life.
- **personal health practices and coping skills** – Those actions by which individuals can prevent diseases and promote self-care, cope with challenges and develop self-reliance, solve problems and make choices that enhance health.
- **biology and genetic endowment** – Basic biology and organic make-up of the human body will predispose certain individuals to particular diseases or health problems.
- **delivery of health services** – Those services designed to maintain and promote health, prevent disease, and restore health and function contribute to population health. The health services continuum of care includes treatment and secondary prevention.
- **gender** – Array of society-determined roles, personality traits, attitudes, behaviours, values, relative power and influence that society ascribes to the two sexes on a differential basis. “Gendered” norms influence the health system's practices and priorities.
- **culture** – Some persons or groups might face additional health risks due to socioeconomic environment, determined by dominant cultural values that contribute to the perpetuation of conditions such as marginalization, stigmatization, loss or devaluation of language and culture, and lack of access to culturally appropriate healthcare and services.

Determinants of health are summarized as follows:

- biology and genetic endowment
- culture
- education and literacy
- employment and working conditions
- gender
- healthcare delivery
- healthy child development
- income and social status
- personal health practices and coping skills
- physical environments
- social environments
- social support networks

## 4. Coverage of Health Services

### 4.1 Canada Health Act – What is Funded in Alberta and What Is Not

Although publicly funded services in Alberta continue to evolve, the *Canada Health Act* (CHA) provides a key directive about what is funded. The CHA requires all provinces to provide hospital-based services and physician services to their residents without co-payment. Any jurisdiction not in compliance with the CHA is subject to penalty imposed by Health Canada. The federal government can withhold health transfer payments for provinces found to be in violation of the CHA requirements.

One of the first criteria for hospital/physician services is whether those services are medically necessary. Simple examples of medically necessary services include lifesaving procedures, like heart bypass surgery, and bone and joint surgeries. Nonmedically necessary procedures include cosmetic surgeries like botox or nose beautification. Although these services are provided by physicians or surgeons, they are not publicly funded.

Taken from the Alberta Health website,<sup>153</sup> following is a list of services covered, partly covered and not covered.

#### SERVICES COVERED UNDER AHCIP

The AHCIP covers all eligible Albertans for insured hospital and physician services in Alberta. Alberta's healthcare plan provides Alberta residents with full coverage for medically necessary physician services and some specific dental and oralsurgical health services.

##### Basic Services

- Examinations
- Medically required surgery
- Standard ward hospitalization
- Medically necessary use of a semi-private or private room
- Private nursing care in a hospital setting, ordered by attending physician and meeting hospital bylaws
- Pacemakers, steel plates, pins, joint prostheses, valve implants and any goods approved by the minister (unless they are enhanced goods and services)
- Necessary nursing services
- Laboratory, radiological and other diagnostic procedures (including interpretation) to maintain health, prevent disease and help diagnose/treat any injury, illness or disability
- Drugs/biologicals/related preparations administered in hospital (specified in hospitalization benefits regulation)
- Use of operating room, case room and anesthetic facilities, plus necessary equipment and supplies
- Routine surgical supplies
- Use of radiotherapy facilities
- Use of physical therapy facilities
- Services supplied by persons being paid by the hospital
- Hospitalization benefits (in-patients)
- Transporting a patient in Alberta by ambulance or other commercial vehicle from one facility to another
- Goods and services included in an approved hospital or specific program (unless they are enhanced goods and services)
- Hospitalization benefits (out-patients)

153 <http://www.health.alberta.ca/health-care-insurance-plan.html>.

- Medically necessary goods and services provided to an out-patient, including goods used in a medical procedure but excluding goods given to a patient to use after discharge
- Oral and maxillofacial surgery services
- Diagnostic interview and evaluation or consultation
- Insured oral surgery

### Popular Health Services

- Vasectomy is covered, vasectomy reversal is not covered
- Cosmetic surgery is not covered, except for procedures deemed medically necessary by a physician, including:
  - panniculectomy (tummy tuck)
  - breast reduction mammoplasty
- Bariatric surgery is covered for weight loss for extremely obese patients with medical complications from the excessive weight, including:
  - gastric partitioning
  - laparoscopic adjustable gastric banding
  - gastric bypass procedures
- Visits to a psychiatrist are covered because a psychiatrist is a medical doctor
- Counselling services provided by psychologists or non-physician mental health therapists are not covered regardless of whether or not a referral is made by a patient's physician

Alberta Health provides funding to AHS to meet the mental healthcare needs of Albertans. AHS offers various mental health services on both an in-patient and out-patient basis.

NOTE: In the case of a discrepancy, the insured services listed in the schedules of medical benefits and outlined in legislation overrule this list.

### Specialized Procedures

Province-wide services are highly specialized procedures, such as organ transplants and major heart surgeries. These services can only be delivered effectively and efficiently at major centres: Edmonton and Calgary. Province-wide services are available to all Albertans in addition to basic health services.

### Services Partly Covered

A portion of a healthcare service cost is covered by AHCIP, but not the entire cost, depending on age and other factors.

- **Podiatry, optometry and dental services** – AHCIP provides partial coverage for podiatry and optometry services received in Alberta only. These services have benefit limits or maximums per benefit year (July 1 to June 30). AHCIP also provides coverage for some specialized dental, oral and maxillofacial surgical services. When the charge for a service exceeds the benefit limit, patients or their secondary insurer (if applicable) must pay the difference in cost. Always discuss treatment details and associated costs with healthcare professional before obtaining the service.
- **Podiatry (foot care)** – Some podiatry services, provided in Alberta under the basic podiatry program, are payable at specific rates up to a maximum of \$250 per benefit year (July 1 to June 30). Podiatrists can charge more than AHCIP covers for basic podiatry services. The patient or their secondary insurer (if applicable), is responsible for paying any additional costs not covered under AHCIP. The podiatric surgery program provides full coverage for services provided by a podiatric surgeon in an Alberta hospital or non-hospital surgical facility under contract with AHS. Podiatric surgeons providing services contracted by AHS may not charge their patients for additional costs. Podiatry services received outside Alberta are not covered.
- **Optometry (vision) eye exams** – For Alberta children 18 years old and younger (1–18), and seniors 65 years and older, eye examinations are covered if received in Alberta. Optometry services received outside Alberta are not covered. Optometry benefits are limited to one complete exam, one partial exam and one diagnostic procedure per benefit year (July 1 to June 30). There are also optometry benefits for Albertans of all ages for specific medical conditions treated by Alberta optometrists. Optometrists cannot charge their patients for services covered by AHCIP. The patient, or their secondary insurer (if applicable), is responsible for paying additional costs not covered under AHCIP. Ask your optometrist for details. Alberta residents 19–64 years old, who require an eye examination for a medical condition, illness or trauma, might be eligible for an eye examination if the optometrist deems it an insured eye examination. Consult healthcare professional about services covered.
- **Dental** – Routine dental care, such as cleaning, fillings and extraction of wisdom teeth, is not covered. Some specific dental, oral and maxillofacial surgical services are fully covered. The patient, or their secondary insurer (if applicable), is responsible for paying additional costs not covered under the AHCIP. Alberta seniors with low to moderate incomes might be eligible for some benefits under the Dental and Optical Assistance for Seniors Program.

### SERVICES NOT COVERED UNDER AHCIP

AHCIP does not cover all healthcare services. Some services not covered by AHCIP might be covered by other government sponsored or private supplementary health insurance. Non-insured health services include:

- cosmetic surgery, such as panniculectomy (tummy tuck), bariatric (lap band) surgery and breast reduction (mammoplasty), unless deemed medically necessary
- prescription drugs, with exceptions
- ambulance services
- routine eye exams for residents 19–64 years of age
- eyeglasses and contact lenses
- routine dental care and dentures
- some immunizations
- mental health services received out-of-province or in non-publically funded facilities
- services provided by chiropractor, acupuncturist, licensed massage therapist, homeopath, naturopath, social worker, nutritionist and physicians' assistant
- vasectomy reversal
- clinical psychologist services
- physiotherapy

- anesthetic charges for services not covered by the AHCIP (for dental service exceptions, contact your dentist)
- third-party medical services, such as medicals for employment, insurance or sports
- hearing aids, medical and surgical appliances, prosthetics, supplies, mobility devices
- Alberta Aids to Daily Living might offer assistance
- medical advice with a patient by telephone, unless otherwise stated in Schedule of Medical Benefits or Schedule of Oral and Maxillofacial Surgery Benefits
- experimental or research program procedures
- medical-legal services
- podiatry and optometry services obtained outside Alberta
- dentistry services obtained outside Alberta, except for medically required oral surgery

### HEALTH COVERAGE OUTSIDE ALBERTA

The AHCIP covers only insured physician and hospital services in Alberta and elsewhere in Canada. For medical treatment outside Canada, there are two sources of funding: AHCIP and the Out of Country Health Services Committee.

## 4.2 Non-Canada Health Act Services

The extent of coverage for services not covered under the *Canada Health Act* varies widely among provinces.

### Prescription Drugs

Pharmacare is not part of the *Canada Health Act*. Albertans are responsible for paying for their prescription drugs, either out of pocket or through private insurance. While in-hospital patients receive prescription drugs at no cost during their hospital stay, they are responsible for paying for drugs once discharged from the hospital. Residents in long-term care facilities have a different arrangement for drug coverage. Alberta seniors qualify for premium-free Pharmacare coverage through Blue Cross Plan. Prescription drugs on the Alberta Drug Benefit List are covered.

The GOA supports a variety of drug programs with public funds to meet the needs of a particular group of Albertans through multiple ministries. Albertans who do not meet the criteria of any publicly funded prescription drug program can have access to a drug plan through private or third-party insurance.

## Continuing Care in Alberta

Continuing care, provided in nursing homes and auxiliary hospitals is not a covered service under *Canada Health Act*. While most of the funding comes from AHS budget, residents are required to pay monthly “accommodation charges.” Comparative data on long-term care accommodation are extremely difficult to collect – non-common definition and terminology make this comparison very difficult. Home care provided in people’s homes is the other component of continuing care. Homecare is a non-*Canada Health Act* service and a variety of co-pay mechanisms exist (see Table 1).

**Table 1: Provincial\* Comparison – *Canada Health Act* and Non – *Canada Health Act* Services**

Province	CHA Services	Non-CHA Services	
	Medically Required Hospital Services	Prescription Drugs	Long-Term Care
Alberta	Medically necessary services provided by physicians and surgeons	Alberta does not have universal plan. • Group 66 plan for seniors • Co-pay and deductible in place	• Long-term care funded by GOA with per diem co-pay from residents
British Columbia	Same as Alberta	• BC has universal income-based Fair Pharmacare plan • Co-pay based on income level	• Long-term care funded by government • Residents pay per diem charge
Saskatchewan	Same as Alberta	• Saskatchewan has universal Pharmacare plan • Different co-pay amounts for seniors and non seniors	• Long-term care funded by government • Residents pay per diem charge based on income
Manitoba	Same as Alberta	• Manitoba has universal Pharmacare plan • Income-tested	• Long-term care funded by government • Co-pay amounts determined by after-tax income and marital status
Ontario	Same as Alberta	• Ontario does not have universal Pharmacare plan • Six drug programs and 65 plus drug plan	• Long-term care funded by government • Standardized co-pay rates

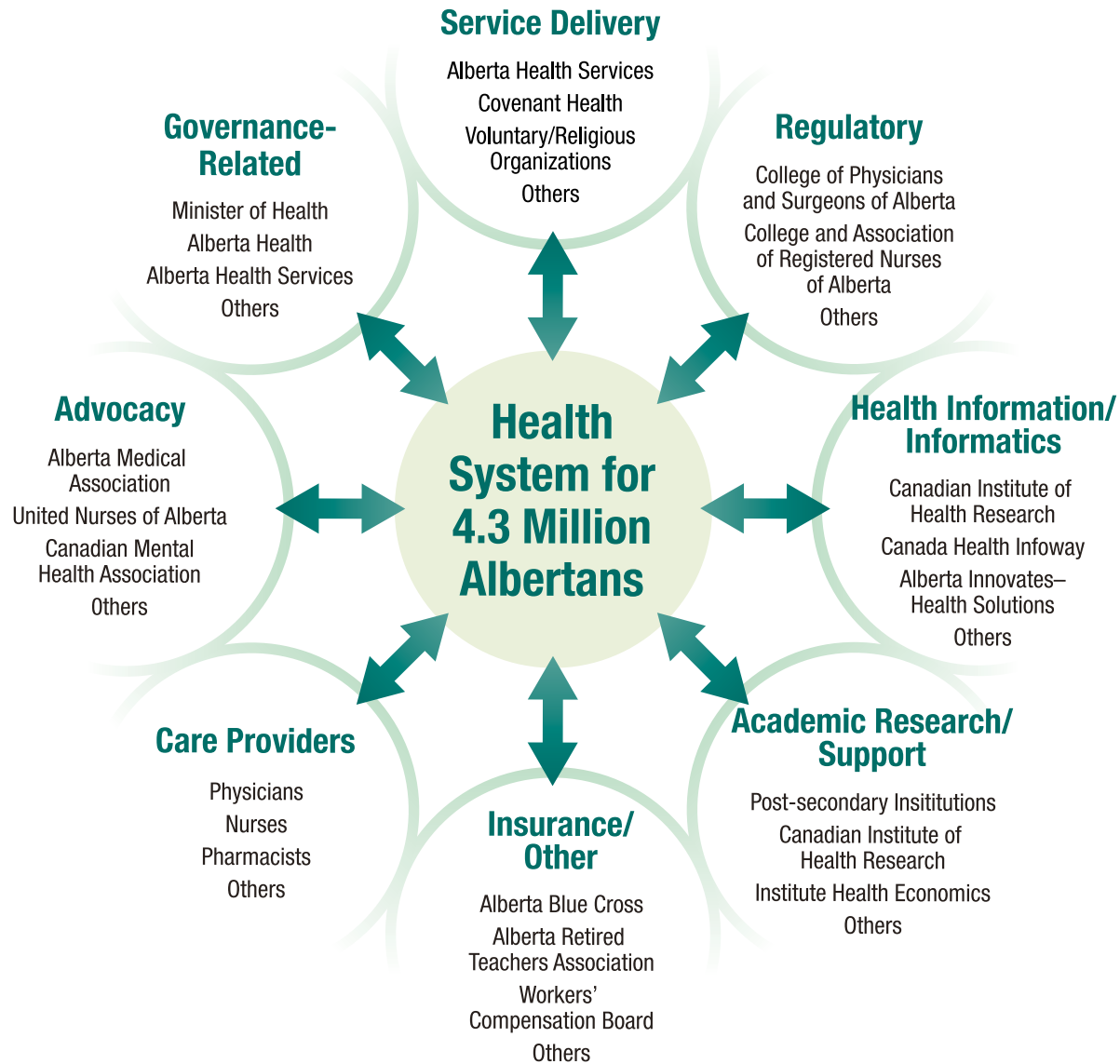
**Note:** \*Comparison limited to western provinces and Ontario, and to drugs and long-term care only.

**Source:** Various sources including Towers Watson (2010).<sup>154</sup>

## Other non – *Canada Health Act* services:

- Physical therapy services are partially covered. Most often, the publicly funded program covers limited number of services per person.
- Chiropractor services are partially covered. Most often, the publicly funded program covers limited number of services per person.
- Services provided by speech therapists, respiratory therapists and occupational therapists are partially covered. Coverage varies between hospital and non-hospital setting.

Figure 1: Overview of Key Participants in Alberta's Health System



## 5. Health Sector Stakeholders

### 5.1 Introduction

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The complexity of Alberta's healthcare system can be explained by the variety of stakeholders who play a role (see Figure 1 and Appendix D).

### 5.2 Governance

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#### a) Minister of Health

The minister is the elected representative who oversees the entire health system, and works as part of the cabinet and sets overall government policy along the lines of the party in power.

#### b) Alberta Health

Alberta Health “sets policy, legislation and standards for the health system in Alberta,”<sup>155</sup> “allocates health funding and administers provincial programs such as the AHCIP and provides expertise on communicable disease control.”<sup>156</sup>

According to Business Plan 2016–17 for Health:<sup>157</sup>

The objective of the ministry is to ensure that Albertans receive the right healthcare services, at the right time, in the right place, provided by the right healthcare providers and teams. Government is committed to bringing stability to the healthcare system by finding efficiencies while protecting frontline services. High value care will be made possible through health system leadership and accountability; regular input from Albertans, health system partners and communities; investments into wellness, prevention and primary healthcare; and ongoing management of performance.

The desired outcomes for the ministry outlined in Business Plan 2016–17 are:<sup>158</sup>

- improved health outcomes for all Albertans
- the well-being of Albertans is supported through population health initiatives
- Albertans receive care from highly skilled healthcare providers and teams, working to their full scope of practice
- a highquality, stable, accountable and sustainable health system

For key actions/initiatives/priorities in the ministry's business plan, see Appendix E.

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<sup>155</sup> <http://www.health.alberta.ca/about-us.html>.

<sup>156</sup> <http://www.health.alberta.ca/about-us.html>.

<sup>157</sup> <http://www.finance.alberta.ca/publications/budget/budget2016/health.pdf>.

<sup>158</sup> <http://www.finance.alberta.ca/publications/budget/budget2016/health.pdf>.



### c) Alberta Health Services

Alberta Health Services (AHS) is the major service delivery arm for Alberta's health system (see subsection 5.3.a), governed by a board accountable to the Minister of Health.<sup>159</sup> The AHS mission is "to provide a patient-focused, quality health system that is accessible and sustainable for all Albertans."<sup>160</sup> Under Section 5 of the *Regional Health Authorities Act*,<sup>161</sup> AHS is required to:<sup>162</sup>

- promote and protect the health of the population in the health region and work toward the prevention of disease and injury
- assess on an ongoing basis the health needs of the health region
- determine priorities in the provision of health services in the health region and allocate resources accordingly
- ensure that reasonable access to quality health services is provided in and through the health region
- promote the provision of health services in a manner that is responsive to the needs of individuals and communities, and supports the integration of services and facilities in the health region

### d) Health Quality Council of Alberta

The mandate of the Health Quality Council of Alberta (HQCA) is to "promote and improve patient safety and health service quality on a province-wide basis, primarily through the lens of the Alberta Quality Matrix for Health."<sup>163</sup> HQCA operates under the *Health Quality Council of Alberta Act*.<sup>164</sup> According to the HQCA, the Act sets the following responsibilities for the HQCA:<sup>165</sup>

- measure, monitor and assess patient safety and health service quality
- identify effective practices and make recommendations for improvement of patient safety and health service quality
- assist in implementation and evaluation of activities, strategies and mechanisms designed to improve patient safety and health service quality
- survey Albertans on their experience and satisfaction with patient safety and health service quality
- assess or study matters respecting patient safety and health service quality
- appoint a panel and provide administrative support for public inquiries relating to the health system, as directed by the Lieutenant Governor in Council

### e) Other Ministries

Other GOA ministries play a direct or indirect role in Alberta's health system, particularly:

- **Advanced Education** – responsible for training healthcare professionals in the province's postsecondary institutions.
- **Human Services** – responsible for a variety of social support services that are integrally linked to the physical, mental and social well-being of Albertans.
- **Infrastructure** – responsible for the construction and maintenance of provincial buildings, including hospitals and other healthcare facilities.
- **Education** – responsible for primary and secondary education; the link between education and population health status is well documented in literature.

159 <http://www.albertahealthservices.ca/about/Page12825.aspx/>.

160 <http://www.albertahealthservices.ca/assets/about/publications/ahs-pub-health-business-plan.pdf> p. 6.

161 <http://www.qp.alberta.ca/documents/Acts/R10.pdf>.

162 <http://www.albertahealthservices.ca/assets/about/publications/ahs-pub-health-business-plan.pdf>.

163 <http://hqca.ca/about/our-mandate/>.

164 <http://www.qp.alberta.ca/documents/Acts/h07p2.pdf>.

165 <http://hqca.ca/about/our-mandate/>.

## 5.3 Service Delivery

### a) Alberta Health Services

The following information was retrieved from the AHS website:<sup>166</sup>

#### Who We Are

- Alberta Health Services (AHS) is Canada's first and largest province wide, fully integrated health system, responsible for delivering health services to the over four million people living in Alberta, as well as to some residents of Saskatchewan, B.C. and the Northwest Territories. Alberta is the fastest-growing province in Canada. In 2014, Alberta's population growth rate more than doubled the national average (2.9 per cent and 1.1 per cent, respectively).
- AHS has over 108,000 employees, including over 99,900 direct AHS employees (excluding Covenant Health staff) and over 8,200 staff working in AHS wholly owned subsidiaries such as Carewest, CapitalCare Group and Calgary Laboratory Services. We are also supported by over 15,600 volunteers and almost 9,300 physicians practicing in Alberta, more than 7,700 of whom are members of the AHS medical staff (physicians, dentists, podiatrists, oral and maxillofacial surgeons).
- Students from Alberta's universities and colleges, as well as from universities and colleges outside of Alberta, receive clinical education in AHS facilities and community locations.
- 106 acute care hospitals, five stand-alone psychiatric facilities, 8,471 acute care beds, 23,742 continuing care beds/spaces and

208 community palliative and hospice beds, 2,439 addiction and mental health beds plus equity partnership in 42 primary care networks.

- Programs and services are offered at over 650 facilities throughout the province, including hospitals, clinics, continuing care facilities, cancer centres, mental health facilities and community health sites.
- The province also has an extensive network of community-based services designed to assist Albertans maintain and/or improve health status.

#### Our History

- Canada's first province-wide, fully integrated health system, announced on May 15, 2008, by Ron Liepert, Minister of Health and Wellness.
- It brings together 12 formerly separate health entities in the province including three geographically based health authorities, Alberta Alcohol and Drug Abuse Commission (AADAC), Alberta Mental Health Board and Alberta Cancer Board. Ground ambulance service was added to the responsibilities of AHS in an announcement from Alberta Health and Wellness on May 30, 2008. The services were moved from municipalities to AHS effective April 1, 2009.

According to the 2016–17 AHS Health Plan and Business Plan, Health Link had “more than one million client/patient contacts, there were more than 2.4 million visits to MyHealth.Alberta.ca and more than 1.2 million seasonal influenza immunizations were administered” in 2014–15.<sup>167</sup>

The numbers in Table 2 provide a snapshot of AHS activity and demonstrate the change in services provided in the past few years.<sup>168</sup>

<sup>166</sup> <http://www.albertahealthservices.ca/about/about.aspx/>.

<sup>167</sup> <http://www.albertahealthservices.ca/assets/about/publications/ahs-pub-2015-2016-annual-report.pdf>.

<sup>168</sup> <http://www.albertahealthservices.ca/assets/about/publications/ahs-pub-2015-2016-annual-report.pdf>.

Table 2: AHS – Provincial Quick Facts

Alberta Health Services	2012-13	2013-14	2014-15	2015-16	% change 2014-15 to 2015-16
<b>Primary Care / Population Health</b>					
Number of Unique Home Care Clients	109,184	112,062	114,990	116,462	1.3%
Number of People Placed in Continuing Care	7,761	7,694	7,810	7,879	0.9%
Health Link Calls	755,980	778,353	813,471	755,334	-7.1%
Seasonal Influenza Immunizations	919,348	1,157,550	1,254,950	1,146,569	-8.6%
EMS Events	416,160	461,813	503,769	517,640	2.8%
Food Safety Inspections	94,856	95,389	92,723	92,857	0.1%
<b>Acute Care</b>					
Emergency Department Visits (all sites)	2,116,946	2,142,634	2,181,375	2,134,968	-2.1%
Urgent Care Visits	204,602	205,354	195,312	189,768	-2.8%
Hospital Discharges	385,536	393,765	401,331	404,513	0.8%
Births	51,540	52,323	54,203	55,281	2.0%
Total Hospital Days	2,640,537	2,670,834	2,808,990	2,811,727	0.1%
Average Length of Stay (in days)	6.8	6.8	7.0	7.0	0.0%
<b>Diagnostic / Specific Procedures</b>					
Total Hip Replacements (scheduled and emergency)	5,216	5,243	5,397	5,563	3.1%
Total Knee Replacements (scheduled and emergency)	6,116	6,224	6,377	6,646	4.2%
Cataract Surgery	35,716	36,785	36,583	36,700	0.3%
Main Operating Room Activity	266,469	272,708	275,925	281,312	2.0%
MRI Exams	176,705	190,024	199,928	195,419	-2.3%
CT Exams	344,667	365,181	387,116	391,600	1.2%
X-rays	1,815,841	1,848,122	1,868,044	1,874,879	0.4%
Lab Tests	68,571,727	70,911,298	73,994,032	75,513,093	2.1%
<b>Cancer Care</b>					
Cancer Patient Visits (patients may have multiple visits)	561,625	560,340	578,005	616,237	6.6%
Unique Cancer Patients	50,103	51,105	52,288	55,020	5.2%
<b>Addiction &amp; Mental Health</b>					
Mental Health Hospital Discharges (acute care sites)	19,955	21,008	21,429	22,810	6.4%
Community Treatment Orders Issued	271	359	439	pending	pending

Note: Health Link volumes — In 2014-15, measles outbreak was the key reason for the difference in call volume as there was no outbreak in 2015-16. Seasonal Influenza Immunization — In 2015-16 there was a later start to influenza illness and influenza activity remained low compared to previous year. Given the economic downturn in Alberta, there were less employers offering onsite influenza immunizations to employees through AHS Workplace Influenza Immunization programs in Edmonton and Calgary. It is important to note the increase in coverage for seniors 65 years of age and older was 62.7% (a 2% increase from last year), one of our more vulnerable populations. MRI volumes — In 2014-15, surplus operating dollars were used to perform additional MRI and CT scans. This was a one-time increase. In 2015-16, AHS maintained budgeted activity numbers and performed the targeted exam numbers.

Source: <http://www.albertahealthservices.ca/assets/about/publications/ahs-pub-2015-2016-annual-report.pdf>.

## b) Covenant Health

Covenant Health, a faith-based organization, provides health services in the areas of acute, continuing and community-based care. Covenant Health is committed to serve, contribute, grow and transform meeting the needs of the community.<sup>169</sup> A number of strategic objectives are listed on their website.<sup>170</sup>

With an annual operating budget of \$856 million in 2015–16<sup>171</sup>, Covenant Health provided “acute care, continuing care and independent living services at 24 facilities in 15 communities across the province.”<sup>172</sup>

The following facts and figures for fiscal 2015–16 were retrieved from Covenant Health’s website:<sup>173</sup>

Team	Service Activity	Service Capacity
<ul style="list-style-type: none"><li>• Employees: 11,120</li><li>• Physicians: 812*</li><li>• Volunteers: 2,536</li></ul> <p>*Physicians designate a Covenant Health facility as their primary site for practice. There are an additional 1,314 physicians who also have privileges to care for patients and residents in Covenant Health facilities.</p>	<ul style="list-style-type: none"><li>• Acute patient days: 324,789</li><li>• Resident days: 530,566</li><li>• Emergency visits: 195,649</li><li>• Outpatient visits: 417,083</li><li>• Surgery cases: 44,904</li><li>• Deliveries: 9,867</li><li>• Diagnostic imaging exams: 260,064</li><li>• Laboratory tests: 3,236,225</li></ul>	<ul style="list-style-type: none"><li>• Acute care beds: 977</li><li>• Sub-acute care beds: 30</li><li>• Palliative beds: 61</li><li>• Rehabilitation beds: 36</li></ul>

## c) Religious and Other Voluntary Organizations

Religious and voluntary organizations have played an important role in shaping healthcare delivery in Alberta. These organizations are actively involved in the delivery of continuing care and a variety of community support services. Many of these organizations receive funding from AHS or other government entities.

## d) Private-for-Profit

For-profit private corporations providing continuing care are an exception in the health services sector. Some of these organizations play an important role in the public healthcare system as AHS contracts them to deliver certain continuing care services. Despite being private, these providers are expected to follow the same guidelines and care standards as other continuing care facilities in the province.

**Note:** Long term care is publicly funded with accommodation charges as co-pay from residents. A variety of models of private funding is an option for home care and supportive living.

## e) DynaLIFE

*DynaLIFE* is a “major Canadian medical laboratory offering a complete range of diagnostic testing services,”<sup>174</sup> under a contract arrangement with AHS. Edmonton is the main testing facility for *DynaLIFE*.

169 <http://www.albertahealthservices.ca/assets/about/publications/ahs-pub-2015-2016-annual-report.pdf>.

170 <http://www.albertahealthservices.ca/assets/about/publications/ahs-pub-2015-2016-annual-report.pdf>.

171 <http://www.albertahealthservices.ca/assets/about/publications/ahs-pub-2015-2016-annual-report.pdf>.

172 <http://www.albertahealthservices.ca/assets/about/publications/ahs-pub-2015-2016-annual-report.pdf>.

173 <https://www.covenanthealth.ca/corporate-information/figures-at-a-glance>.

174 <https://www.dynalifedx.com/MeetDynaLIFE>.

## 5.4 Regulatory Bodies

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Most healthcare professions in Alberta are self-regulated. For example:

### a) College of Physicians and Surgeons of Alberta

“The College of Physicians and Surgeons of Alberta (CPSA) regulates the practice of medicine in Alberta. The privilege of self-regulation is granted through Alberta’s *Health Professions Act* (HPA).”<sup>175</sup>

### b) College and Association of Registered Nurses of Alberta

The vision of CARNA is “Excellence in nursing regulation and practice for the health of all Albertans.”<sup>176</sup>

The mission is “to serve the public by:

- regulating registered nurses to promote and support safe, competent, ethical nursing care
- providing progressive, innovative leadership that encourages professional excellence and influences health policy”<sup>177</sup>

### c) Alberta College of Pharmacists

The vision of the Alberta College of Pharmacists (ACP) is “Healthy Albertans through excellence in pharmacy practice.”<sup>178</sup> The ACP “governs pharmacists, pharmacy technicians and pharmacies in Alberta to support and protect the public’s health and well-being.”<sup>179</sup> The ACP sets and enforces “high standards of competence and ethical conduct.”<sup>180</sup>

## 5.5 Union/Advocacy/Advisory

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### a) Alberta Medical Association

“The Alberta Medical Association (AMA) stands as an advocate for its physician members, providing leadership and support for their role in the provision of quality healthcare.”<sup>181</sup> Almost 10,000 physicians in Alberta are members of the AMA.<sup>182</sup>

### b) United Nurses of Alberta

“The United Nurses of Alberta (UNA) is the union for more than 30,000 Registered Nurses, Registered Psychiatric Nurses and allied workers in Alberta.”<sup>183</sup> Formed in 1977, the UNA “represents nurses in bargaining, in their profession, and in disputes with employers and professional licensing bodies.”<sup>184</sup>

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175 <http://www.cpsa.ca/about/>.

176 <http://www.nurses.ab.ca/content/carna/home/learn-about-carna/organization-and-leadership/vision-mission-values.html>.

177 <http://www.nurses.ab.ca/content/carna/home/learn-about-carna/organization-and-leadership/vision-mission-values.html>.

178 <https://pharmacists.ab.ca/who-we-are>.

179 <https://pharmacists.ab.ca/who-we-are>.

180 <https://pharmacists.ab.ca/who-we-are>.

181 <https://www.albertadoctors.org/about/vision-and-mission>.

182 <https://www.albertadoctors.org/search?q=10%2C000>.

183 <https://www.una.ab.ca/about>.

184 <https://www.una.ab.ca/about>.

## b) Wellness Alberta

Wellness Alberta, a relatively new entity, “brings together thousands of individuals including business, health, recreation and sport leaders and non-governmental organizations who support a meaningful investment in the prevention of disease and injuries.”<sup>185</sup> Wellness Alberta is “a coalition of over 130 organizations, institutions and governing bodies that collectively represent over three million Albertans.”<sup>186</sup> The organization “proposes that the Alberta government increase its investment in chronic disease and injury prevention from one per cent to two per cent of the healthcare budget over the next three to five years.”<sup>187</sup>

## c) Friends of Medicare

“Friends of Medicare is a provincial coalition of individuals, service organizations, social justice groups, unions, associations, churches and other organizations whose goal is to raise public awareness on concerns related to Medicare in Alberta and Canada.”<sup>188</sup>

## d) Canadian Mental Health Association

The Canadian Mental Health Association (CMHA), a voluntary organization, was founded in 1918.<sup>189</sup> Annually, the CMHA “provides direct service to more than 100,000 Canadians through the combined efforts of more than 10,000 volunteers and staff across Canada in over 120 communities.”<sup>190</sup> The CMHA “promotes the mental health of all and supports the resilience and recovery of people experiencing mental illness.”<sup>191</sup> The CMHA performs “advocacy, education, research and service”<sup>192</sup> roles.

# 5.6 Academic Research/Support

## a) Post-Secondary Institutions

Colleges and universities in Alberta play a significant role in Alberta’s health system by:

- providing training to nurses, physicians, pharmacists, other healthcare professionals
- leading clinical and health services research

## b) Alberta Innovates (formerly Alberta Innovates – Health Solutions)

Alberta Innovates has a mandate to support research and innovation activities to improve the health and wellbeing of Albertans.<sup>193</sup> Alberta Innovates:

- funds internationally competitive health research and innovation activities to improve the health and well-being of Albertans
- provides leadership for Alberta’s health research and innovation enterprise by directing, coordinating, reviewing, funding and supporting research and innovation<sup>194</sup>

185 <http://www.wellnessalberta.ca/about.html#.V0YQcU3mokQ>.

186 <http://edmontonjournal.com/opinion/columnists/jim-gray-investing-in-chronic-disease-prevention-will-make-alberta-healthier>.

187 <http://edmontonjournal.com/opinion/columnists/jim-gray-investing-in-chronic-disease-prevention-will-make-alberta-healthier>.

188 <http://www.friendsofmedicare.org/>.

189 <http://www.cmha.ca/about-cmha/>.

190 <http://www.cmha.ca/about-cmha/>.

191 <http://www.cmha.ca/about-cmha/>.

192 <http://www.cmha.ca/about-cmha/>.

193 <http://www.aihealthsolutions.ca/media/AIHS-mandate-and-roles.pdf> p. 1.

194 <http://www.aihealthsolutions.ca/about-us/mandate-and-vision/>.

In Budget 2016, the GOA announced formation of a single corporation to include the four Alberta Innovates branches.<sup>195</sup> On November 1, 2016, Alberta Innovates Corporation was launched, a new Crown corporation consolidating the four previous Alberta Innovates Corporations: Bio Solutions, Energy and Environment Solutions, Health Solutions and Technology Futures.<sup>196</sup>

### c) Alberta Bone and Joint Health Institute

Established in 2004, the Alberta Bone and Joint Health Institute (ABJHI) is an “independent institute for channeling knowledge into better bone and joint healthcare services and the nation’s leading organization for engaging stakeholders in adopting best practices.”<sup>197</sup> ABJHI’s “work involves designing and evaluating innovative, evidence-based ways to deliver bone and joint healthcare service, searching out the latest evidence, measuring and reporting healthcare service performance and managing projects for clients.”<sup>198</sup>

## 5.7 Health Information/Informatics

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### a) Canadian Institute for Health Information

The mandate of the Canadian Institute for Health Information (CIHI) is to “deliver comparable and actionable information to accelerate improvements in healthcare, health system performance and population health across the continuum of care.”<sup>199</sup> See subsection 9.3.g for more information.

### b) Canada Health Infoway

The vision of Canada Health Infoway is “a high-quality, sustainable and effective Canadian healthcare system supported by an infrastructure that provides residents of Canada and their healthcare providers timely, appropriate and secure access to the right information when and where they enter into the healthcare system.”<sup>200</sup> See subsection 9.3.f for more information.

### c) Alberta Innovates (formerly Alberta Innovates — Health Solutions)

In addition to its role in health research, AI has also been playing a lead role in defining the requirements of a provincial health analytics network. During the last two years, AI has made significant progress in setting up Secondary Use Data Platform (SUDP) project, in partnership with Alberta Health, AHS, HQCA, AMA and others.

### d) Data Integration, Measurement and Reporting – Alberta Health Services

The Data Integration, Measurement and Reporting (DIMR) unit of AHS plays a critical analytics role with Alberta’s health data. It works collaboratively with the Analytics Unit of Alberta Health in developing useful metrics for the health system. DIMR “helps healthcare providers and clients who need to collect and report information about health within AHS including health status, health determinants, and use of healthcare services.”<sup>201</sup>

195 <http://finance.alberta.ca/publications/budget/budget2016/fiscal-plan-complete.pdf>, pages 37 & 42; <http://edmontonjournal.com/news/local-news/government-cuts-alberta-innovates-health-research-funding-by-22-million>.

196 <https://www.alberta.ca/release.cfm?xD=4373243D42426-C525-C376-64DF2C95FB88E108>.

197 <https://albertaboneandjoint.com/about-us/>.

198 <https://albertaboneandjoint.com/about-us/>.

199 <https://www.cihi.ca/en/about-cihi/vision-and-mandate>.

200 [http://www.ticsalut.cat/flashticsalut/pdf/94\\_2\\_r2\\_en\\_sc\\_guideandstandardcatalogue.pdf](http://www.ticsalut.cat/flashticsalut/pdf/94_2_r2_en_sc_guideandstandardcatalogue.pdf).

201 <http://www.albertahealthservices.ca/info/service.aspx?id=1661>.

## 5.8 Insurance/Other

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### a) Alberta Blue Cross

Alberta Blue Cross is an independent, not-for-profit organization. Its mission is “to provide supplementary healthcare and related benefit programs and services, on a viable, not-for-profit basis, for the financial protection and wellbeing of Albertans.”<sup>202</sup> Alberta Blue Cross provides supplementary benefit plans for services such as “prescription drugs, dental care, ambulance service, vision care, home nursing and other health-related benefits, preferred hospital accommodation, emergency medical travel, chiropractor, as well as life insurance and short- and long-term disability coverage for group plan members.”<sup>203</sup>

### b) Alberta Retired Teachers Association

The Alberta Retired Teachers Association provides health (medical and dental), and supplementary travel insurance benefits to its members.<sup>204</sup> It also provides similar coverage to other Albertans, including retirees from Alberta’s public service.

### c) Workers’ Compensation Board

Under the *Workers’ Compensation Act*, the Workers’ Compensation Board (WCB) has “overall responsibility for the administration of the workers’ compensation system in Alberta, and the delivery of workers compensation services to the workers and employers of the province, subject only to statutory rights of review and appeal contained in the Act.”<sup>205</sup> WCB’s key role in providing care through insurance coverage for injured workers in Alberta, makes it an integral partner in Alberta’s health system.

## 5.9 Family Members and Other Caregivers

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At some point in their life, many Albertans will act as a caregiver to an ill or disabled child, a frail parent, grandparent, another family member or a friend. These Albertans play a very important role in the province’s healthcare system.

# 6. Health Workforce

## 6.1 Importance of Health Human Resources

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Alberta’s health workforce comprises approximately 150,000 health workers. They account for more than 70 per cent of all health dollars spent by the health system in Alberta, and as much as 90 per cent in long-term and communitybased care. In the acute care sector, where drugs and equipment play a higher role, the percentage is somewhat less.

202 <https://www.ab.bluecross.ca/aboutus/about.php>.

203 <https://www.ab.bluecross.ca/aboutus/about.php>.  
Source: <http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/281627-1095698140167/DredgeHspGiblbDgtFinal.pdf> p.1.

204 <http://www.arta.net/membership/arta-membership-benefits/>.

205 [https://www.wcb.ab.ca/assets/pdfs/public/WCB\\_mandate\\_roles.pdf](https://www.wcb.ab.ca/assets/pdfs/public/WCB_mandate_roles.pdf).



With respect to payment, most health workers who are not physicians are paid via salary – usually through negotiated agreements. In contrast, about 85 per cent of physicians are paid on a fee-for-service (FFS) basis.<sup>206</sup> Physicians who are not paid through FFS are paid predominantly through alternative relationship plans (ARPs). “ARPs are physician funding and compensation programs in collaboration with AHS, the Universities of Alberta and Calgary, and the AMA.”<sup>207</sup> “The aim of this program is to develop compensation strategies – other than FFS – to remunerate physicians for providing defined program services.”<sup>208</sup>

“A Clinical Alternative Relationship Plan (Clinical ARP) compensates physicians for providing a set of clinical services at defined facilities to a target population.”<sup>209</sup> Three compensation models are used for a Clinical ARP:<sup>210</sup>

- Annualized model – compensation is based on the number of physician full-time equivalents required to deliver the clinical services in the Clinical ARP. A full-time equivalent is a time-based unit of measure (e.g., hours per year or days per year).
- Sessional model – compensation is based on an hourly rate for the delivery of clinical services.
- Capitation model – compensation is based on an annual amount per rostered patient. Rosters can be composed of enrolled patients or all patients within a defined geographic area.

Academic physicians are compensated through Academic Alternative Relationship Plans (AARPs). “AARPs aim to achieve excellence in health through academic medicine and are dedicated to the provision of outstanding clinical, education, research and leadership services.”<sup>211</sup>

In terms of annual growth in health spending, wage inflation has been the highest cost pressure factor. During the last 10 years, the wage increases have been much higher than overall economic inflation.

## 6.2 Health Workforce – Who Is Included

All workers in the health system, irrespective of their sector or classification, are included in this definition of health workforce. These are Albertans who work for the health sector as nurses, physicians, pharmacists, healthcare aides and many other categories. Of that, about 10,000 physicians, 38,000 registered nurses and about 5,000 pharmacists are providing care to the Alberta population. Approximately 31,000 healthcare aides in the province are working mostly in continuing care facilities.

Physicians can be broadly grouped into two categories – specialists and nonspecialists. Nurses are registered nurses (RNs), licensed practical nurses (LPNs), registered psychiatric nurses and nurse practitioners. In total, there are about 62,000 workers in the nursing profession, accounting for approximately 40 per cent of all health workers in the province.

According to CIHI, “In 2015, most provinces reported an increase in the number of physicians, with Alberta reporting the largest increase (5.2 per cent).”<sup>212</sup> Table 3 provides historical numbers of select health professionals (nurses, pharmacists, and doctors) in Alberta. The table also shows average annual percent increase over a four-year period. During this period, physicians had the largest average annual increase. During the same period, the average annual increase in the Alberta population was 2.6 per cent.

206 “The Canadian Institute for Health Information says less than 18% of Alberta physicians received payments through alternative models in 2014, by far the lowest rate in the country.” Source: <http://edmontonjournal.com/news/local-news/health-minister-eyes-changes-to-how-alberta-doctors-are-paid>.

207 <http://www.health.alberta.ca/documents/PCN-Review-2016.pdf>.

208 <http://www.health.alberta.ca/professionals/alternative-relationship-plans.html>.

209 <http://www.health.alberta.ca/professionals/ARP-Clinical.html>.

210 <http://www.health.alberta.ca/professionals/ARP-Clinical.html>.

211 <http://www.health.alberta.ca/professionals/ARP-Academic.html>.

212 [https://secure.cihi.ca/free\\_products/Summary\\_Report\\_2015\\_EN.pdf](https://secure.cihi.ca/free_products/Summary_Report_2015_EN.pdf) p. 8.

**Table 3: Select Health Professionals and Population Trend**

	2010	2011	2012	2013	2014	Average Annual Increase (%)
Registered Nurses	33,156	33,456	34,711	35,514	36,985	2.89
Pharmacists	4,152	4,277	4,431	4,550	4,759	3.65
Physicians	7,882	8,258	8,530	9,024	9,523	5.20
Alberta Population	3,732,573	3,790,191	3,888,552	4,007,748	4,120,897	2.60

**Sources:** <http://www.nurses.ab.ca/content/carna/home/learn-about-carna/publications-and-reports/annual---financial-reports.html> (various annual reports)  
[https://pharmacists.ab.ca/sites/default/files/ACP\\_AnnualReport\\_2015.pdf](https://pharmacists.ab.ca/sites/default/files/ACP_AnnualReport_2015.pdf)  
<https://secure.cih.ca/estore/productFamily.htm?locale=en&pf=PFC2964> (Supply, Distribution and Migration of Canadian Physicians, 2014).  
<http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo02a-eng.htm> (Demography Division, Statistics Canada).

## 6.3 Health Human Resources – Key Participants

The Department of Health, with an overall role of overseeing an annual budget of \$19.7 billion,<sup>213</sup> plays a key role in the health workforce. Through its health workforce division headed by an assistant deputy minister, the department sets overall policies, standards and guidelines for the entire health sector, and works closely with a number of other ministries and agencies in its oversight role:

- **AHS** – overall service delivery organization for acute inpatient and ambulatory care, long-term care and other services. AHS works closely with the Department of Health to ensure all aspects of the health workforce are looked after.
- **Regulatory colleges** – oversee their respective professions and interact with government and professional associations on a variety of health workforce-related issues. CPSA and CARNA have significant influence on the health system.
- **Other GOA ministries** – responsible for post-secondary level training for physicians, nurses, pharmacists, physical therapists, and many other healthcare professionals, the Department of Advanced Education plays a very important role. The Ministry of Labour plays an important role in the immigration of workers with appropriate skills and credentials. GOA ministries and AHS have now built considerable capacity in the area of health workforce projections.
- **Post-secondary educational institutions** – publicly and privately funded, play a direct role in the education of Alberta's health workforce. These schools not only set the curriculum, but play a direct role to ensure their graduates meet employer requirements and are able to compete with colleagues graduating elsewhere.

<sup>213</sup> <http://www.health.alberta.ca/documents/Funding-Health-2016-17-Q2-Allocation.pdf>.

## 7. Healthcare Funding in Alberta

### 7.1 Introduction

Most Canadian provinces spend approximately 40 per cent of their entire budget on healthcare. CIHI's forecasted figures for 2014 showed public expenditures on health would account for 42 per cent of the budget in Alberta (see Appendix F).<sup>214</sup>

British Columbia, Manitoba and Nova Scotia spent higher proportions of their total budget on health. The percentages for the territories were relatively lower.

Highlights on healthcare funding in Alberta include:<sup>215</sup>

- The Ministry of Health forecast is \$21.1 billion, which includes a department forecast of \$19.7 billion.
- Every hour we spend \$2.4 million – \$58 million per day – to maintain and improve Alberta's healthcare system.
- Total consolidated health spending represents almost 40 per cent of the GOA consolidated expense in 2016–17.
- The Ministry of Health includes the department of health, AHS and the HQCA.

The department of health revenue budget for 2016-17 fiscal year is \$19.7 billion and several many components (see Appendix G). Of this amount, 77 per cent is funded from general revenue fund and the remainder comes from other sources, including federal government contribution (22 per cent). Until 2009, healthcare premiums paid by Alberta taxpayers was an additional revenue source contributing approximately \$1 billion annually.<sup>216</sup>

#### a) Alberta Health Budget Allocation

At the beginning of 2016–17 the consolidated health budget was \$20.4 billion, or roughly 40 per cent of the GOA consolidated expense.<sup>217</sup> As of November 2016, the consolidated budget forecast was \$21.1 billion, which included a department of health forecast of \$19.7 billion.<sup>218</sup>

The department distributes the budget through separate payment streams. Major categories in the November 2016 forecast included:

- \$14.3 billion – AHS
- \$5 billion – physician compensation and development
- \$2.1 billion – drugs and supplemental health benefits (including seniors' health benefit program and Alberta Aids to Daily Living)
- \$906 million – other health system priorities managed by the department where AHS might already have operational involvement (e.g., cancer research and prevention, infrastructure support, information systems, continuing care initiatives)

214 [https://www.cihi.ca/sites/default/files/document/nhex\\_trends\\_narrative\\_report\\_2015\\_en.pdf](https://www.cihi.ca/sites/default/files/document/nhex_trends_narrative_report_2015_en.pdf) p. 17.

215 <http://www.health.alberta.ca/about/health-funding.html>.

216 <http://www.alberta.ca/release.cfm?xID=233527746F053-9B11-FDEB-08ACEC186300DC0B;>

217 <http://calgaryherald.com/news/politics/finance-minister-robin-campbell-says-government-may-bring-back-health-care-premiums>.

<http://finance.alberta.ca/publications/budget/budget2016/health.pdf> p. 70; <http://finance.alberta.ca/publications/budget/budget2016/fiscal-plan-complete.pdf> p. 9.

218 The Department of Health, <http://www.health.alberta.ca/about/health-funding.html>.

- \$237 million – primary healthcare programs managed by the department (mainly the PCN program)
- \$67 million – the department operations
- \$40 million – addiction and mental health initiatives managed by the department (an area where AHS has primary operational responsibility)

The department of health receives its annual budget (19.7 billion) as a grant from the GOA (see Appendix H). As expected, the largest share goes to AHS, followed by Alberta physicians. Although some academic physicians and primary care physicians are compensated through a number of alternative payment arrangements, about 85 per cent of physicians are paid through a fee-for-service payments system.

Spending on drugs and supplemental health benefits accounts for about 10 per cent of the overall health budget. Alberta does not have a universal prescription drug plan. This spending covers only the prescription costs of seniors and select non-group plans, and does not include the cost of prescription drugs provided to hospital-based patients. AHS pays for hospitalbased drugs from its global budget.

## b) Alberta Health Services Spending Breakdown

The department of health provides AHS allocation in the form of global funding.<sup>219</sup> These monies are intended to pay for acute care, long-term care, mental health, cancer care and a variety of noninstitutional services. In pre-AHS days, this funding was broken into sub-pools (e.g., province-wide services). In other words, some components of regional funding were activitybased. When AHS became the sole health service delivery organization, the funding system was transformed into a total global funding system.

Main AHS expenditure lines by object in 2015–16<sup>220</sup> were:

- \$7.7 billion – salaries and benefits account for nearly 55 per cent of the total AHS budget (increases to 70 per cent if AHS payments to physicians are added)
- \$2.5 billion – voluntary and private health service providers contracted by AHS (e.g., long-term care, home care, lab services)
- \$1.1 billion – other contracted services; payments to those under contract not considered to be employees, including some AHS payments to physicians and other healthcare provider categories
- \$590 million – amortization, disposals and write-downs
- \$420 million – cost of drugs, chemicals and medical gases in AHS hospitals (separate from programs administered by the department in community pharmacies)
- \$410 million – medical and surgical supplies
- \$1.3 billion – other expenses not classified elsewhere (infrastructure, maintenance)

219 “A global budget is, at its simplest, an overall spending limit or target. It will define the volume of service that is to be delivered, and its total price. It is usual for the budget to be prospective and agreed for a defined time period (i.e., the fiscal year). The main purpose, and advantage, of a global

budget is to control the aggregate total spend on a particular program, service or health care institution.” Source: <http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/281627-1095698140167/DredgeHspGblBdgtFinal.pdf> p.1.

220 Alberta Health Services, <http://www.albertahealthservices.ca/assets/about/publications/ahs-pub-2015-2016-annual-report.pdf>.

About 70 per cent of the health budget is accounted for by salaries, wages and benefits. A significant component of contract employees' wages is included in the second and third line items. The exact breakdown of that component is not readily available.

Main AHS expenditure lines by function in 2015–16<sup>221</sup> were:

- \$3.3 billion – inpatient care at hospital nursing units
- \$2.3 billion – diagnostic imaging and clinical lab services paid by AHS in the community and in hospitals, AHS hospital pharmacy costs, and other therapeutic services
- \$2.1 billion – support services (mainly for hospitals) including building maintenance and utilities, materials management, medical device sterilization and reprocessing, housekeeping and linen services, food services
- \$1.6 billion – emergency, day/night care, clinics, day surgery and contracted surgical services
- \$1.2 billion – community-based care (mainly supportive living, palliative and hospice care, community mental health, urgent care centres, Family Care Clinics and AHS portion of funding for Primary Care Networks)
- \$1 billion – facility-based continuing care (long-term care and specialized psychiatric facilities)
- \$570 million – home care
- \$570 million – information technology
- \$480 million – ambulance services
- \$430 million (about 3 per cent of the total) – administration, including a share of administration of some contracted health service providers
- \$360 million (about 3 per cent of the total) – promotion, prevention and health protection services
- \$220 million – health research and medical education (primarily funded by donations and third-party contributions)

## 7.2 Funding and Costing in Alberta

### a) Funding Since Regionalization

#### i) 1994

Before 1994, the provincial health ministry managed 128 hospital boards, 25 public health boards and 40 long-term care boards (GOA 2008).<sup>222</sup> Driven by overarching concern with spending reduction and accountability, the Alberta government undertook a major regionalization initiative. “In 1994, the GOA passed the *Regional Health Authorities Act* to abolish over 200 existing local hospital and public health boards and replace them with seventeen regional health authorities.”

<sup>223</sup> The introduction of the Act caused a significant reorganization in the delivery of healthcare services in the province (Alberta Labour Relations Board 1996). Each region had appointed boards who were to manage operational decision making at the local level.<sup>224</sup> “Consistent with the larger fiscal agenda, the government’s intention was to address healthcare system efficiency through larger integrated management and governance structures.”<sup>225</sup>

<sup>221</sup> Ibid.

<sup>222</sup> <http://www.alberta.ca/release.cfm?xID=23523ED9498C0-0827-451C-E98A0B8430DC1879>.

<sup>223</sup> <http://onlinelibrary.wiley.com/doi/10.1111/j.1754-7121.2008.00016.x/abstract>.

<sup>224</sup> <http://www.alberta.ca/release.cfm?xID=23523ED9498C0-0827-451C-E98A0B8430DC1879>.

<sup>225</sup> <http://onlinelibrary.wiley.com/doi/10.1111/j.1754-7121.2008.00016.x/abstract>.

## ii) Pre-1997

According to Plain (1999):<sup>226</sup> “Prior to 1997, a variant of a prospective global budgeting system was used to fund the province’s general acute and auxiliary hospitals and public health units. Under this funding system a lump sum budget was negotiated between the Alberta Health and an individual health board. This budget was based on the past expenditures made by the health care enterprise and estimates of proposed changes anticipated in the forthcoming year.”

## iii) 1997–08

During this 11-year period, the traditional prospective global budgeting system was replaced by a prospective capitation-based budgeting system on April 1, 1997. The change in healthcare financing model was implemented after implementation of a regional structure with 17 regional health authorities. Capitation is a population-based method of funding services.<sup>227</sup> Funding is calculated in advance, based on a specific, defined population, on a per person basis, including such factors as age, gender, socioeconomic group and population health status.<sup>228</sup> In 2003, the regional structure was consolidated and the 17 regions reconfigured into nine regions,<sup>229</sup> though the population-based allocation formula continued until 2008.

## iv) 2008

The AHS board was established by the Alberta government on May 15, 2008 to deliver health services for the entire province and be accountable to the Minister of Health and Wellness.<sup>230</sup> The single board was established “to ensure the provincial health system is patient-focused and provides equitable access to all Albertans in the 21st century.”<sup>231</sup> The new governance model was intended to help make Alberta’s publicly funded healthcare system more effective and efficient. Alberta Health and Wellness was to “continue to be responsible for setting, monitoring and enforcing provincial health policy, standards and programs, as well as for managing health capital planning, procurement and outcome measures.”<sup>232</sup>

## v) 2009

The Alberta government eliminated AHCIP premiums effective January 1, 2009. The government felt time had come for Albertans to enjoy additional direct rewards of the province’s prosperity.<sup>233</sup> The premium generated about \$1 billion annually.

AHS officially began operations on April 1, 2009, incorporating nine regional health authorities, the Alberta Mental Health Board, the Alberta Cancer Board and the Alberta Alcohol and Drug Abuse Commission. AHS was part of the government’s plan for improving the healthcare system.

## vi) 2010–11 to 2014–15

The Alberta government and AHS had a five-year funding agreement that ran until the end of 2014–15. 2010–11 was the first year in the government’s five-year funding commitment to support AHS in fulfilling its mandate.<sup>234</sup> The remaining four years of the commitment to AHS provided six per cent increases in each of 2011–12 and 2012–13, and 4.5 per cent increases in each of the final two years, 2013–14 and 2014–15.<sup>235</sup>

226 <http://www.hli.ualberta.ca/HealthLawJournals/-/media/hli/Publications/HLR/8-1-plainfrm.pdf> p. 15.

227 <http://www.alexrossos.ca/downloads/ffscapitation.pdf> p.3.

228 <http://www.alexrossos.ca/downloads/ffscapitation.pdf> p.3.

229 AMA (Undated).

230 <http://www.alberta.ca/release.cfm?xID=23523ED9498C0-0827-451C-E98A0B8430DC1879>.

231 <http://www.alberta.ca/release.cfm?xID=23523ED9498C0-0827-451C-E98A0B8430DC1879>.

232 <http://www.alberta.ca/release.cfm?xID=23523ED9498C0-0827-451C-E98A0B8430DC1879>.

233 <http://www.alberta.ca/release.cfm?xID=233527746F053-9B11-FDEB-08ACEC186300DC0B>.

234 <http://www.health.alberta.ca/documents/Becoming-the-Best-2010.pdf> p.4.

235 <http://www.health.alberta.ca/documents/Becoming-the-Best-2010.pdf> p.4.

### **vii) 2015–16 Onward**

AHS received a two per cent funding increase over the previous year. At year-end it was estimating a deficit in the range of \$100 million plus.

### **viii) Per Capita Funding Trend**

“Alberta annual per capita growth rate in health for the last 20 years has been close to 6 per cent” (Amrhein 2016: p. 14).

## **b) Costing Evolution**

A prerequisite for most resource allocation models is dependable information on health services costing. In other words, it is important to know “what it costs” to produce a unit of health service, e.g., a low-cost item like a mole removal procedure to a high-cost item like heart/lung transplant. Among Canadian provinces, Ontario was the first province that implemented the case costing project that resulted in “made in Canada information” on health services costing. Alberta had implemented its own case costing system in the late 1990s.

Highlights of healthcare costing in Alberta include:

Costs/prices/charges mean different things to different people.

- Among all Canadian provinces, Alberta became a leader in activity-based costing in the 1990s and early 2000s. Alberta had followed Ontario’s Case Costing Project and became the second province in the country to do detailed case costing. In spite of interprovincial inconsistencies, due to basic similarities, CIHI uses both Alberta and Ontario data in calculating cost weights usable by all provinces and territories.
- Good costing information is a prerequisite for resource allocation models. Activity-based costing information played a pivotal role in Alberta’s population-based funding formula between 1997 and 2008.
- The current state of case costing in Alberta is not clear. AHS, as part of its mandate is continuing with the costing work, but its comprehensiveness or its much needed expansion into continuing care and/or public health areas is not documented in the system.

## 8. Physician Compensation in Alberta

### 8.1 Introduction

Physicians play a central role in providing patient care. Almost 10,000 physicians provide full-time and part-time patient care in Alberta.<sup>236</sup> In addition, some physicians are full-time researchers and do not provide clinical care. As shown in the overall health spending pie chart in Appendix H, the gross physician compensation in 2016–17 is estimated at \$4.6 billion. This translates to \$460,000 gross payments per physician. It is important to understand the variance between gross payments and net income due to high overhead costs for some specialties.

Summary of provincial spending on physician compensation and development:

- \$3.8 billion – remuneration paid by the department in 2015–16 to individual physicians (mainly, fee-for-service payments accounted for as grant by the department).<sup>237 238</sup>
- \$390 million – physician benefits,<sup>239</sup> paid mostly by the department:<sup>240</sup>
  - \$101 million – physician on-call program to facilitate physician availability including after regular business hours
  - \$85 million – business costs program to pay a portion of the medical office overhead
  - \$72 million – provide physicians with a “retention” benefit amount in recognition of their service in Alberta
  - \$49 million – a program to reimburse physicians for the cost of their medical liability insurance premiums
  - \$47 million – rural remote northern program to compensate physicians who practice in underserved areas in Alberta
  - \$22 million – a program to reimburse physicians for their continuing education costs
  - other smaller amounts for programs to support physicians<sup>241</sup>
- \$360 million – AHS payments for physicians budgeted for 2014–15;<sup>242</sup> top three items by payment volume are:
  - \$145 million – payments to radiologists under the provincial diagnostic imaging contract
  - \$70 million – payments to pathologists under various arrangements
  - \$40 million – payments to oncologists under various arrangements
- \$320 million – payments to physicians in 2014–15 under academic and clinical alternative relationship plans (ARPs) primarily managed by the department.<sup>243</sup> Though many ARPs involve a fixed stipend, most still require physicians to submit fee-for-service shadow billing.
- \$170 million – physician development programs, which mainly include medical residents service allowances (about 75 per cent of the total) and other physician training and assessment support costs (remaining 25 per cent)

236 <https://www.albertadoctors.org/search?q=10%2C000>.

237 The Department of Health, <http://www.health.alberta.ca/documents/Annual-Report-16.pdf>.

238 The exact amounts of fee for service payments are not provided in the department's financial statements.

239 Internal information provided by the Department of Health.

240 The Department of Health, <http://www.health.alberta.ca/documents/Health-Spending-PhysicianServices-2016.pdf>.

241 Ibid.

242 Ibid.

243 Alberta Health Care Insurance Plan Statistical Supplement 2014–15, p. 3;



The primary method of physician payment is through fee-for-service (FFS). Physicians use the Schedule of Medical Benefits (SOMB)<sup>244</sup> as the guideline for billing the Ministry of Health. Fees are set ahead of time, ranging from a \$36 office visit to a \$5,500 liver transplant.<sup>245</sup>

Table 4 provides a summary of billing data retrieved from the 2014–15 AHCIP Statistical Supplement. While over 60 per cent of physicians received less than \$500,000 in gross payment annually, as many as 88 physicians received a gross payment of over \$2,000,000 each. A total of 363 physicians received a gross FFS payment of over \$1 million each. Once again, it is important to note the large variance between gross payment and net income due to high overhead costs for some specialties.

In addition to FFS, about 15 per cent of physicians are paid through different compensation models.<sup>246</sup> The largest of this is Alternative Relationship Payment (ARP) models with a small number of sessional and salary based compensation arrangements. Primary care services provided by family physicians were historically paid through the FFS payment system.

**Table 4: Number of Physicians by Gross Payment Range (Fee-For-Service)\***

Gross Payment Range	2013/2014	2014/2015
Less than \$500,000	6,087	6,305
More than \$500,000	1,656	1,871
More than \$1 million	339	363
More than \$2 million	65	88

**Note:** \*These statistics cannot be used as an accurate measure of a practitioner's personal income, because they do not depict other sources of income and the figures quoted are payments from which practitioners pay business expenses, such as office and staff expenses

**Source:** <http://www.health.alberta.ca/documents/AHCIP-Stats-Supplement-15.pdf> p. 3.

Numerous books and reports, including Romanow (2002) and Kirby (2003), emphasized the need for primary care compensation reform. A major recommendation in many reports has been the need to reform the FFS payment method. Feder (2013) noted that,<sup>247</sup> “Although health policy experts disagree on many issues, they largely agree on the shortcomings of fee-for-service payment. The inefficiency of a payment method that rewards increases in service volume, regardless of health benefit, has become practically indefensible.” As well, the standard fee-for-service agreement does not link payment to quality of care or outcomes.

## 8.2 Current Status

Physician compensation in Alberta is primarily managed through negotiation between the department of health and the AMA. AHS is not a signing party to the physician agreement currently in place. Before 2008 when AHS was formed, the third party was a representative group of the nine regional health authorities in place between 2003 and 2008. A multi-layered committee administers negotiations and manages the agreement during the life of the contract. The Physician

244 <http://www.health.alberta.ca/documents/AHCIP-Stats-Supplement-15.pdf>.  
<http://www.health.alberta.ca/documents/SOMB-Medical-Prices-2016-04.pdf>.

245 Gerein (2016)

246 “The Canadian Institute for Health Information says less than 18% of Alberta physicians received payments through alternative models in 2014, by far the lowest rate in the country.”

Source: <http://edmontonjournal.com/news/local-news/health-minister-eyes-changes-to-how-alberta-doctors-are-paid>.

247 <http://www.nejm.org/doi/full/10.1056/NEJMp1302730#t=article>.

Compensation Committee was established under the AMA Agreement to provide a specific and focused “authority and responsibility over all elements of physician compensation, plans and programs subject to the provisions of the AMA Agreement.”<sup>248</sup> The current contract expires in 2018. On October 17, 2016 the GOA announced that “Alberta’s physicians have ratified an amending agreement with government that will improve patient care.”<sup>249</sup>

For an interprovincial comparison of average payment for family physicians in 2014–15, see Appendix I. The Alberta figure of \$376,486 was the highest among all the provinces in the country. The comparable figure for BC was \$273,434 implying Alberta figure was approximately 38 per cent higher than in BC. In terms of payments to specialists, as shown in Appendix J, Alberta continued to be the highest. CIHI data released in August 2016 shows that “the average gross clinical payment per physician ranged from \$258,000 in Nova Scotia to \$366,000 in Alberta”<sup>250</sup> in 2014–15. The national average was \$339,000.

### a) Primary Care

Under the current primary care system in Alberta fee-for-visit is the predominant method of paying primary care physicians. Typically, family physicians work solo and in small group practices, and look after chronic disease patients and non-chronic disease patients in the same office-based practices. In the majority of cases, chronic and non-chronic patients are treated on an episodic basis.

### b) Non-Primary Care

Specialist physicians are also paid through FFS except that some of them are compensated through academic ARPs. The difference between specialist and family physicians pay rates/levels has been a longstanding issue.

## 9. Health Information Systems

### 9.1 Context and Brief History

“Currently, health information is managed in more than 1,800 disconnected clinical information systems across the province.”<sup>251</sup> “AHS currently has more than 1,300 independent systems storing patient information.”<sup>252</sup> In addition to the many patient care systems (e.g., cancer; intensive care unit and mental health), there are a large number of administrative and financial systems in place (e.g., payroll and payment systems).

Information systems managed by the department of health include the physician billing system (Claims) and the Alberta Client Registry, and several clinical and surveillance data systems (e.g., Alberta Congenital Anomalies Surveillance System). As AHS/departments of health data custodianship becomes clearer, a few data sets are being transitioned to AHS. The transition items include the massive data set that includes the entire laboratory, diagnostic imaging and pharmacy information network. The information manager and custodianship roles are determined by the *Health Information Act* (HIA).

248 <https://www.albertadoctors.org/leaders-partners/pcc>.

249 <http://www.alberta.ca/release.cfm?xID=436194CF84480-991F-BA87-BBAFBEC8DD49F83>.

250 [https://secure.cihi.ca/free\\_products/Summary\\_Report\\_2015\\_EN.pdf](https://secure.cihi.ca/free_products/Summary_Report_2015_EN.pdf) p. 4.

251 <https://medicalstaff.covenanthealth.ca/media/157646/cis-faq.pdf>.

252 <http://www.albertahealthservices.ca/info/cis.aspx>.

During 2003–08, before AHS was established, IM/IT was developing along three parallel but disconnected paths. That period is best described as the days of the nine regional health authorities. This triplication of effort included development of a health IM/IT solution in Capital Health region, a separate one in Calgary and a third one known as the Regional Shared Health Information Platform (RSHIP) for the seven non-urban regions.

## 9.2 Managing Massive Data Volumes

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Providing care to 4.2 million Albertans, Alberta's health system generates a massive amount of information. Canada Health Infoway 2014–15 Annual Report indicated 100 per cent availability of electronic information in Alberta for lab test results and diagnostic imaging in hospitals.<sup>253</sup> The breakdown of healthcare professionals with Netcare access in Figure 2 shows that roughly 50 per cent of the health workforce with access to Netcare is either physicians or nurses.

Collection, processing and sharing of health information must be done in compliance with the Alberta *Health Information Act* (HIA), and regulations. The Office of the Information and Privacy Commissioner (OIPC) oversees implementation and adherence to HIA.

## 9.3 Agency Roles

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A large number of agencies play a role in health information management. While some – the department and AHS – are focused on collection and maintenance of a variety of data sets, others – HQCA, AI and CIHI – are more focused on data comparison and data analytics.

### a) Department of Health

The department, overseeing an annual budget of \$19.7 billion,<sup>255</sup> plays a key role in health information systems. Through its Health Information Technology and Systems division, the department sets overall policies, standards and guidelines for the entire health sector.

### b) Alberta Health Services

AHS is the overall service delivery organization for acute inpatient and ambulatory care, long-term care and other services. It works closely with Alberta Health in ensuring all aspects of health IT and IM. Most important areas of the interaction include setting data standards, data definitions and data sharing arrangements. Like Alberta Health, it also plays a liaison role with many external entities responsible for data security and development of EHR and EMR data standards.

### c) Health Quality Council of Alberta

Using its own data repository and information from DIMR in AHS, the HQCA contributes through value-added quantitative analysis (see subsection 5.2.e).

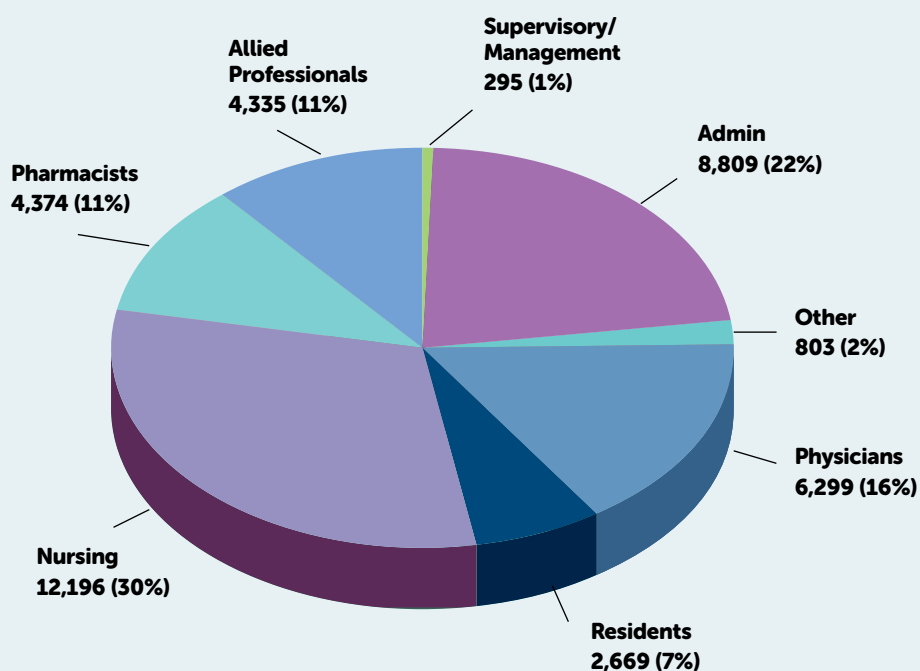
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253 Canada Health Infoway 2014–2015 Annual Report. <https://www.infoway-inforoute.ca/en/component/edocman/resources/i-infoway-i-corporate/annual-reports/2771-annual-report-2014-2015?Itemid=101> p.8.

255 <http://www.health.alberta.ca/documents/Funding-Health-2016-17-Q2-Allocation.pdf>.

Figure 2: Alberta Netcare Portal – February 2016

**Total Number of Users : 39,780**



**Note:** As of June 2016, the department of health website indicates "over 51,000 health professionals have access to Alberta Netcare Portal."<sup>254</sup>  
**Source:** Watson, S. "Alberta's EHR Journey," in: T. Hodge et al, EHR Discussion, pages 39 -77, Office of Auditor General of Alberta, May 2016. 108 pages.

#### d) Alberta Innovates (formerly Alberta Innovates – Health Solutions)

Since 2015, Alberta Innovates(AI) has taken a leadership role in implementing the Secondary Use Data Platform (SUDP) to ease research and academic community access to health data.

#### e) Service Alberta

Service Alberta plays an important GOA-wide coordination role by establishing definitions, standards and potential linkages with the rest of the GOA system. Subject to provincial legislation and Executive Council direction, hardware and software policies for the entire GOA are set by Service Alberta, in consultation with department CIOs.

#### f) Canada Health Infoway

Canada Health Infoway Inc. (Infoway)<sup>256</sup> is "an independent, not-for-profit corporation established in 2001 to accelerate development of electronic health technologies such as electronic health records (EHRs) and telehealth on a pan-Canadian basis."<sup>257</sup> Infoway's purpose is to "realize the vision of healthier Canadians through innovative digital health solutions."<sup>258</sup> Funded by the federal government, Infoway members include Canada's 14 federal, provincial and territorial deputy ministers of health.

<sup>256</sup> <https://www.infoway-inforoute.ca/en/about-us>.

<sup>257</sup> <http://www.hc-sc.gc.ca/ahc-asc/performance/estim-previs/plans-prior/2015-2016/supplement/supplement-5-eng.php>.

<sup>258</sup> <https://www.infoway-inforoute.ca/en/what-we-do/digital-health-and-you>.

## g) Canadian Institute for Health Information

The Canadian Institute for Health Information (CIHI) “collects and analyzes information on health and healthcare in Canada and makes it publicly available.”<sup>259</sup> CIHI was created by Canada’s federal, provincial and territorial governments as a “not-for-profit, independent organization dedicated to forging a common approach to Canadian health information.”<sup>260</sup>

The goal of CIHI is “to provide timely, accurate and comparable information.”<sup>261</sup> “CIHI’s data and reports inform health policies, support the effective delivery of health services and raise awareness among Canadians of the factors that contribute to good health.”<sup>262</sup>

## h) Canadian Primary Care Sentinel Network

The Canadian Primary Care Sentinel Surveillance Network (CPCSN) is “a primary care research initiative – it is the first pan-Canadian multi-disease electronic medical record surveillance system.”<sup>263</sup> CPCSN collects health information from electronic medical records in the offices of participating primary care providers (e.g., family physicians). The aim of CPCSN is “to improve the quality of care for Canadians suffering from five chronic and mental health conditions (hypertension, osteoarthritis, diabetes, chronic obstructive pulmonary disease – COPD – and depression) and three neurologic conditions (Alzheimer’s and related dementias, epilepsy and Parkinson’s disease).”<sup>264</sup> CPCSN makes it possible to securely collect and report on vital information from Canadians’ health records to improve the way these chronic diseases and neurologic conditions are managed.

## i) Alberta Medical Association and College of Physicians and Surgeons of Alberta

The Alberta Medical Association (AMA) and College of Physicians and Surgeons of Alberta (CPSA) both play unique health information roles. As the negotiating body for Alberta doctors, AMA has access to billing information, which is used to support negotiations and conduct a variety of other reviews. CPSA, on the other hand, has very limited access to clinical information, often determined by “case specific need” (e.g., practice review due to a patient complaint). CPSA collects and maintains physician licensing/registry data and is the best source for that information.

## j) Albertans

Patient access to their own data is considered a prerequisite to patient engagement. Initiated in 2011 by the department, Personal Health Portal project has the potential to ensure access to individual data in a secure manner.<sup>265</sup> At the time of this report, the Personal Health Portal was still work-in-progress.

## k) Other Participants

Other ministries that play a role in health information systems include Human Services, Seniors and Housing, and Treasury Board and Finance. The Faculty of Medicine and Faculty of Nursing at University of Alberta and University of Calgary, and the School of Public Health (University of Alberta) also play significant roles. The two large universities host a large number of research and survey databases that constitute an integral part of the province’s health information.

259 <https://www.cihi.ca/en/health-system-performance/performance-reporting/international/cihi-etool-uses-international-health>.

260 <https://www.cihi.ca/en/health-system-performance/performance-reporting/international/cihi-etool-uses-international-health>.

261 <https://www.cihi.ca/en/health-system-performance/performance-reporting/international/cihi-etool-uses-international-health>.

262 <https://www.cihi.ca/en/health-system-performance/performance-reporting/international/cihi-etool-uses-international-health>.

263 <http://cpcssn.ca/about-cpcssn/>; <http://cpcssn.ca/about-cpcssn/mission-goals/>.

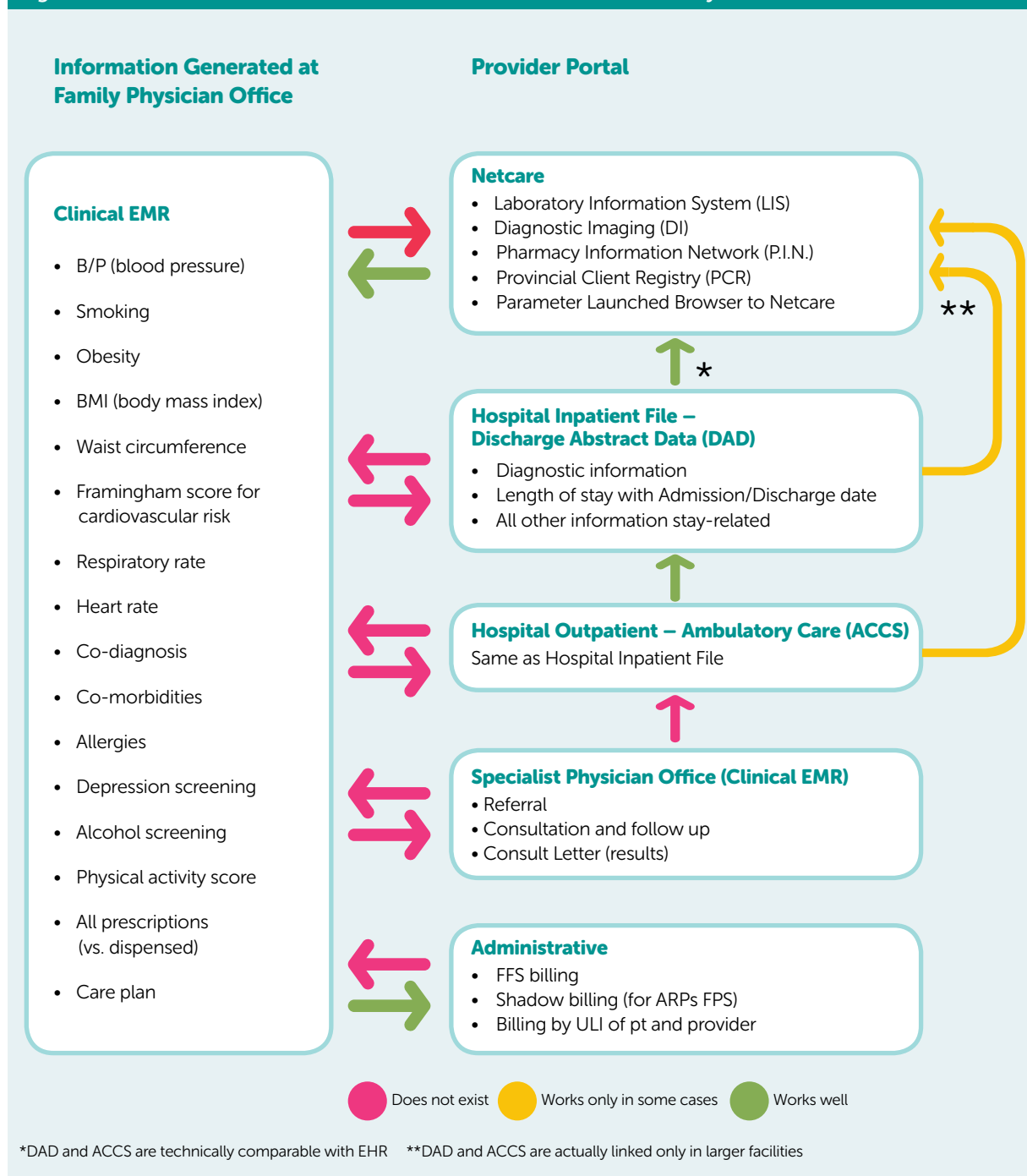
264 <http://cpcssn.ca/about-cpcssn/>; <http://cpcssn.ca/about-cpcssn/mission-goals/>.

265 <https://myhealth.alberta.ca/>.

## 9.4 Current State

Alberta is well ahead of other provinces in deployment of health information technology. The creation of AHS was expected to consolidate health information systems from nine regions. Significant progress has been made in consolidating financial and payroll data, but a single clinical system is not yet in place. Despite this progress, clinical data remains fragmented. Figure 3 illustrates how detached electronic medical records (EMR) are from the rest of the system.

Figure 3: Electronic Medical Records and Lack of Data Connectivity



Source: Adapted from Chowdhury (2014, p. 31), <https://era.library.ualberta.ca/files/b4q77fr36n/Chowdhury,Tapan+per+cent20Chronic+per+cent20Disease+per+cent20Management+per+cent202014-05-30.pdf>.

Outlining the major health data repositories, Figure 3 shows that a patient's health information is dispersed across multiple systems and multiple locations. Health information collected at each patient's visit includes basic but crucial data such as blood pressure, allergies, diagnosis and co-morbidities, and history of prescription medications (both dispensed and non-dispensed without a breakdown).

As shown in the EMR bar on the left side of Figure 3, EMR is partially connected with other health databanks. Most EMRs connect with Netcare data, but in a one-directional way (no direct feed). EMR data are not shared with Netcare. In other words, there are no direct links from a physician's EMR to other systems.

The top box in Figure 3 (Netcare) is one of the more recent additions to the overall health information repository. The Netcare portal accesses very important datasets, including laboratory results, diagnostic imaging information, information on prescriptions dispensed, patient demographics, physician information and facility location information. Individual Albertans (i.e., patients or their families), do not have access to Netcare or any other part of the digital data system.

## 9.5 Costs

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The price tag attached to digital information management is continuously rising. GOA Budget 2016 indicated that AHS 2016–17 expense for information systems is an estimated \$570 million and \$88 million for the department.<sup>266</sup> Covenant Health, AMA, HQCA, AI and many other health sector agencies also incur IM/IT spending, but the two largest spending entities are the department and AHS. The majority of AHS spending is to maintain existing systems and develop new and expanded systems.

### a) IT Workforce

Like in other health system sectors, most IT dollars are accounted for by employee salaries, wages and benefits. The IT workforce comprises workers trained in Alberta and some trained outside Canada.

### b) IT Hardware and Software

Most IT hardware and software is acquired through GOA procurement policy. In addition to services provided to the department, Service Alberta plays a substantive role in ensuring a GOA-wide standardized approach to software and IT platforms. IT platforms include major infrastructure like data warehouses, business intelligence environment and data marts. Alberta Health, through the contracting process, has a longterm arrangement with CGI and IBM for ongoing provision of systems support. AHS has contractual arrangements with Oracle and MEDITECH for ongoing maintenance and systems development initiatives.

### c) Clinical Workload Measurement and Patient Coding

Clinicians spend a significant amount of time capturing clinical information. Nursing workload measurement system, and case mix grouping have become sub-industries in the healthcare industry. This work is both complex and resource consuming.

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<sup>266</sup> <http://finance.alberta.ca/publications/budget/budget2016/fiscal-plan-expense.pdf> p. 32.

## 9.6 Analytics

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Evidence-based decision making requires meaningful metrics. The analytics process converts data into meaningful information. This conversion takes place through a variety of value-added steps, including building data marts, data cubes and more importantly, standard reports.

Both the department and AHS have been working toward building analytics capacity, and AHS has made considerable progress in recent years. AHS's Data Integration, Management and Reporting (DIMR) business unit is a reputed analytics entity in Alberta and across Canada.

## 9.7 Data Sharing with Decision Makers and Academics/Researchers

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Health services are delivered throughout the system by a variety of professionals and service delivery is supported by clinical and health services research. Proper data dissemination and information sharing are prerequisites for effective service delivery.

### a) Primary and Secondary Data

In the document *Data Stewardship: Secondary Use of Information*,<sup>267</sup> the College of Physicians and Surgeons of Alberta (CPSA) defines primary use and secondary use data:

- **Primary use** – patient health information collected by physician (or other healthcare provider) for the purpose of providing health services to that patient. Also includes provider registration information used to document provision of care. Use of a patient's health information by another healthcare provider to provide a service to that patient is still considered primary use.
- **Secondary use** – using a patient's health information for any purpose not directly related to the care of an individual patient who is the subject of that information.

Data for research and innovation purposes is, according to these definitions, all secondary use. Secondary use of data is defined as de-identified and privacyprotected information.

De-identification or anonymization is a tool to remove identifiers from a person-level data. It ensures that data cannot be matched to the person it describes. "What might seem like a simple matter of masking a person's direct identifiers (name, address), the problem of de-identification has proven more difficult and is an active area of scientific research."<sup>268</sup>

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<sup>267</sup> [http://cpsa.ca/wp-content/uploads/2015/05/Secondary\\_Use\\_of\\_Health\\_Information\\_-\\_Final\\_December\\_2009.pdf?146366](http://cpsa.ca/wp-content/uploads/2015/05/Secondary_Use_of_Health_Information_-_Final_December_2009.pdf?146366).

<sup>268</sup> Privacy Analytics (2014, p.2).





# 2 —

## Select Information on Cost and Quality of Healthcare in Alberta

Overall, Alberta spends more per capita on healthcare than most provinces, about 20 per cent above the provincial average. Alberta's healthcare indicators are close to those of other provinces – slightly below average in some areas and slightly above in others. The risk in benchmarking Alberta to other provinces is that Canada as a whole does not compare well internationally. The Alberta government's stated goal is to build one of the best healthcare systems in the world.<sup>269</sup> Healthcare in Alberta and the rest of Canada is not getting worse, but other countries are improving much faster and with less money. They are improving by integrating their healthcare delivery.

One can take issue with specific measures presented below or with the particulars of how these measures were calculated, but our point is this: information from multiple sources consistently points to the same conclusion – "Albertans are not getting the best value for their healthcare dollar. While the province invests more per person than many other jurisdictions in Canada and around the world, Albertans do not have better health outcomes or quality of care."<sup>270</sup>

269 Becoming the Best: Alberta's 5-year Health Action Plan; <http://www.health.alberta.ca/documents/Becoming-the-Best-2010.pdf>.

270 A Catalyst for Transformation – CIS Business Case, Alberta Health, July 2014.

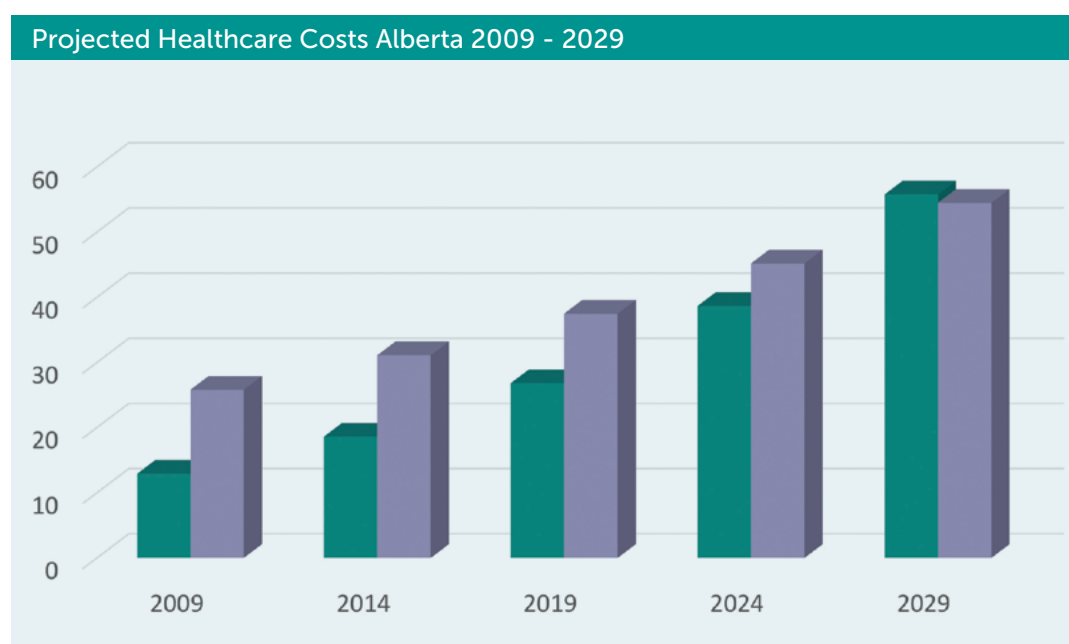
# 1. Cost and Sustainability

## 1.1 Growth in Health Spending

Healthcare already consumes over 40 per cent of the total provincial budget in Alberta. Provincial expenditure on healthcare has been growing two times faster than spending for the rest of the government. Projecting the current rate of growth in healthcare relative to other publicly funded services shows that healthcare spending could surpass all other programs combined within 15 years<sup>271</sup>. Further funding increases in line with those of the past decade may not be possible, indicating profound changes will need to be made.

Healthcare spending per capita in Alberta is among the highest in Canada. It doubled from \$2,068 in 2000 (when it was roughly the same as the national average) to \$4,437 in 2010<sup>272</sup> (20 per cent above the national average. In 2015, Alberta's per capita healthcare spending was \$4,862.<sup>273</sup>

Average annual growth rate in Alberta's total provincial government health expenditure (10.4 per cent) has been higher than that of the Canadian average (6.5 per cent) over the last 10 years.<sup>274</sup> Nationally, Alberta has consistently been spending more than most other provinces over the past 35 years, despite having a generally younger population.<sup>275</sup>



271 Data collected from Government of Alberta financial statements.

272 Information collected from Alberta Health Strategic Services Division report on "Health Care Cost Drivers" <http://www.health.alberta.ca/documents/Health-Care-Cost-Drivers-Alberta-2013.pdf>. 2010 is latest year of actual data available for both unadjusted and age-gender adjusted per capita spending figures.

Source: CIHI National Health Expenditure Trends Report 1975–12.

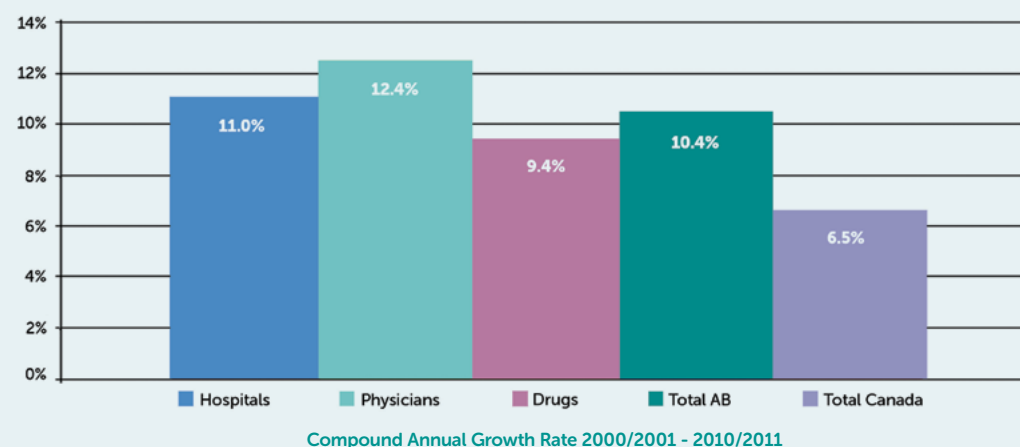
273 The Department of Health, <http://www.health.alberta.ca/health-info/health-economics-dashboard1.html>.

274 Information from Alberta Health Strategic Services Division report Health Care Cost Drivers" <http://www.health.alberta.ca/documents/Health-Care-Cost-Drivers-Alberta-2013.pdf>.

275 Alberta's proportion of residents over 65 was lowest of all provinces (11.9% vs. Canadian average of 16.5%) and proportion 15–64 years old was highest (69.6% vs. Canadian average of 67.4%), <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo31d-eng.htm>.

Ibid [http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#/indicators/015/cost-of-a-standard-hospital-stay;/mapC1;mapLevel2;trend\(C1,C20018\)](http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#/indicators/015/cost-of-a-standard-hospital-stay;/mapC1;mapLevel2;trend(C1,C20018)).

## Average Annual Growth Rate in Provincial Government Expenditure, 2000-01 to 2010-11



Source: CIHI: \*Canada excludes AB and territories

More recently, the cost of standard hospital stay in Alberta has further gone up 16 per cent between 2010 and 2011 and 2014 to 2015. At \$7,851, it is the highest in Canada (36 per cent above the national average).

Attempts have been made in the past to force efficiencies through measures such as outsourcing and across the board spending cuts for specific areas and provider categories. Without fundamental changes in the way healthcare services are delivered, further funding reductions in the face of growing demand may not be possible without reducing insured services, increasing wait times, or generating additional revenue to help fund the system.

## 1.2 Risk to Sustainability

### a) Aging Population

On its own, the aging of the Alberta population will be only a modest driver of public healthcare expenditure growth. The share of public healthcare dollars spent on Canadian seniors has not changed significantly over the past decade – from 44 per cent in 2000 to 45 per cent in 2013. During the same time period, the percentage of seniors in the population grew from 12.6 per cent to 15.3 per cent.<sup>277</sup> In Alberta, the department estimates that effects of an aging population will contribute an additional \$825 million in 2020 and \$3.80 billion in 2030 to the total direct healthcare system cost.<sup>278</sup> In comparison, total public healthcare spending in Alberta increased from \$14.4 billion in 2010 to an estimated \$20 billion at the end of fiscal 2017.

<sup>277</sup> National Health Expenditure Trends, 1975 to 2015. Canadian Institute for Health Information, [https://www.cihi.ca/web/resource/en/nhex\\_2014\\_report\\_en.pdf](https://www.cihi.ca/web/resource/en/nhex_2014_report_en.pdf).

<sup>278</sup> Department of Health, <http://www.health.alberta.ca/documents/PHSB-06-2015-Age-Costs.pdf>.

## b) Chronic Disease in Younger Albertans

A much more significant threat to the sustainability of the public healthcare system will be the rise of chronic disease among younger adults and children.

Consider diabetes – one of many chronic diseases:

- Prevalence of diabetes in Alberta has increased by 58 per cent between 2000 and 2010.<sup>279</sup>
- For Alberta children, prevalence of diabetes has increased by 20 per cent between 1998 and 2002.<sup>280</sup>
- Healthcare system costs for Albertans with diabetes are two times higher than for those without it (comparisons controlled for age, gender and geographic location).<sup>281</sup>
- At this rate, by 2020 the prevalence of diabetes in Alberta will be about 7.6 per cent (compared to 5.5 per cent in 2010), and the direct cost of diabetes to the system will be about \$3.6 billion (compared to \$1.2 billion in 2008).<sup>282</sup>
- If the prevalence of diabetes between 2012 and 2020 stayed at 2011 levels, \$1.9 billion in direct healthcare costs could be avoided.<sup>283</sup>
- Type 2 diabetes, which accounts for 90 to 95 per cent of all cases of diabetes, is considered to be largely preventable.<sup>284</sup>

Overweight and obesity is another example:

- According to the World Health Organization, the impact of obesity on non-communicable diseases such as cardiovascular disease, Type 2 diabetes and cancer threatens to overwhelm health systems.<sup>285</sup>
- About 28 per cent of Alberta youth and 55 per cent of adults are overweight or obese.<sup>286</sup>
- Alberta rates are close to the national average, and rising.
- Nationwide, obesity is associated with a 67 per cent increase in self-reported chronic conditions and linked to premature death.<sup>287</sup>
- Obesity is a significant factor in a variety of other health conditions and a significant contributor to healthcare costs. For example, between 2010 and 2012 knee replacement rates among obese Albertans averaged eight times higher than non-obese.<sup>288</sup>

## 1.3 Spending on Hospitals vs Community-based Care

There has been no fundamental shift toward community-based care over the last forty years. Most of Alberta's healthcare budget has been and continues to be spent on hospital-based care.<sup>289</sup>

279 Department of Health, <http://www.health.alberta.ca/documents/PHSB-03-2013-Diabetes-Cost.pdf>.

280 Ibid.

281 Ibid.

282 Ibid.

283 Ibid.

284 Ibid.

285 World Health Organization, [http://www.who.int/nutrition/publications/obesity/WHO\\_TRS\\_894/en/](http://www.who.int/nutrition/publications/obesity/WHO_TRS_894/en/).

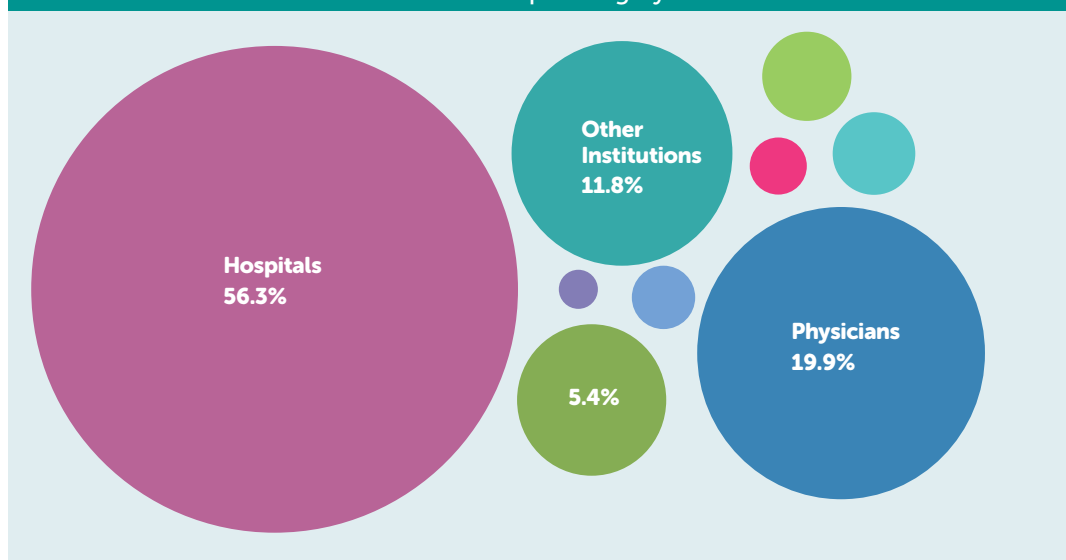
286 Canadian Institute of Health Information, [https://secure.cihi.ca/free\\_products/Primary%20Health%20Care%20in%20Canada%20-%20Selected%20Pan-Canadian%20Indicators\\_2016\\_EN.pdf](https://secure.cihi.ca/free_products/Primary%20Health%20Care%20in%20Canada%20-%20Selected%20Pan-Canadian%20Indicators_2016_EN.pdf).

287 Canadian Institute of Health Information, [https://secure.cihi.ca/free\\_products/CPHIOverweightandObesityAugust2004\\_e.pdf](https://secure.cihi.ca/free_products/CPHIOverweightandObesityAugust2004_e.pdf)

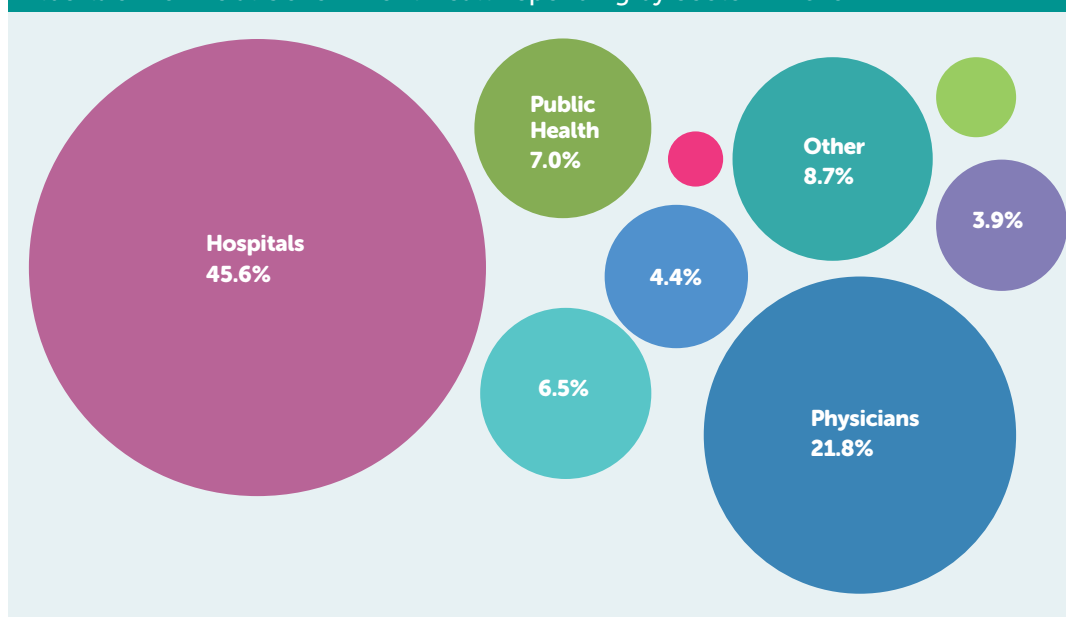
288 The Department of Health, <http://www.health.alberta.ca/documents/HTA-2014-01-21-Knee-Replacements.pdf>.

289 The Department of Health, <http://www.health.alberta.ca/health-info/health-economics-dashboard3.html>.

### Alberta's Provincial Government Health Spending by Sector – 1975



### Alberta's Provincial Government Health Spending by Sector – 2015



There has been only a moderate shift toward preventive care in the community (as shown by the change in combined spending for public health [olive] and other health spending [purple] from 5.8 per cent of total to 10.9 per cent). Hospital programs and services have declined by 10 per cent over the same period, but still account for nearly half of all the government's healthcare spending.<sup>290</sup> Compensation of physicians in hospitals and in the community represents another 22 per cent.

## 2. Healthcare Quality Trends

### 2.1 Access to Care

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Access to care is not just a matter of convenience – it is critical for avoiding health complications, which in turn helps provide cheaper and more efficient care.

Although other jurisdictions may be set up differently (e.g., public vs private funding, physicians engaged as salaried public employees vs. private contractors), data gathered for national and international comparisons are still relevant and instructive. Regardless of jurisdiction, all private and public healthcare systems face the same challenges as Alberta in trying to integrate services to deliver high quality care at reasonable cost.

#### a) More Family Doctors, Yet Fewer Albertans Have One

The percentage of Albertans who report having a regular medical doctor had dropped from 84 per cent in 2003 down to 80 per cent in 2014.<sup>291</sup> Over the same period, the ratio of family physicians in Alberta has increased from 98 to 118 family physicians per 100,000 Albertans.<sup>292</sup>

The rest of Canada shows a similar trend, but not as significant as Alberta. The percentage of Canadians who report having a regular medical doctor has dropped slightly from 86 per cent in 2003 to 85 per cent in 2014.<sup>293</sup> This was despite the fact that the ratio of family physicians per 100,000 Canadians has gone up 19 per cent (from 96 physicians per 100,000 Canadians in 2003 to 114 in 2014).<sup>294</sup>

The percentage of Albertans with a family doctor or another regular place of care is close to the OECD average.<sup>295</sup> Having a regular doctor or a place of care does not always translate into having better access to care.

Compared with other countries and nationally, fewer Albertans are able to get the same or next day appointments, and medical care in the evenings and on weekends.

290 The Department of Health, <http://www.health.alberta.ca/health-info/health-economics-dashboard3.html>.

291 Canadian Institute for Health Information, [http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#/indicators/001/have-a-regular-doctor;/mapC1;mapLevel2;trend\(C1,C20018\)](http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#/indicators/001/have-a-regular-doctor;/mapC1;mapLevel2;trend(C1,C20018)).

292 Canadian Institute for Health Information, <https://secure.cihi.ca/estore/productFamily.htm?locale=en&pf=PFC2964>.

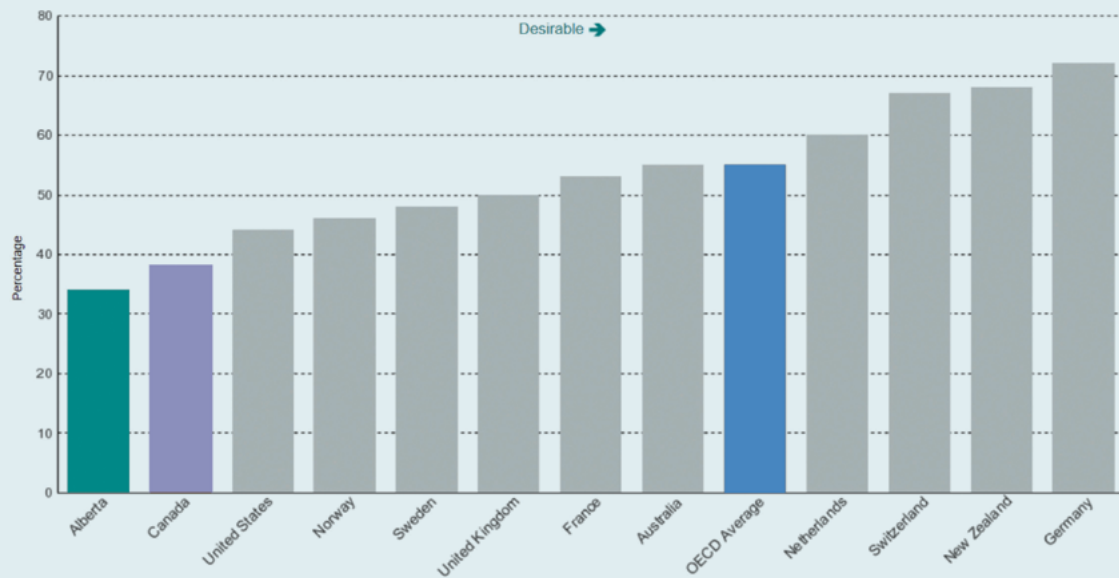
293 Canadian Institute for Health Information, [http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#/indicators/001/have-a-regular-doctor;/mapC1;mapLevel2;trend\(C1,C20018\)](http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#/indicators/001/have-a-regular-doctor;/mapC1;mapLevel2;trend(C1,C20018)).

294 Canadian Institute for Health Information, <https://secure.cihi.ca/estore/productFamily.htm?locale=en&pf=PFC2964>.

295 Canadian Institute for Health Information, <https://www.cihi.ca/en/health-system-performance/performance-reporting/international/oecd-interactive-tool-health-status>.

## Same or Next Day Appointment

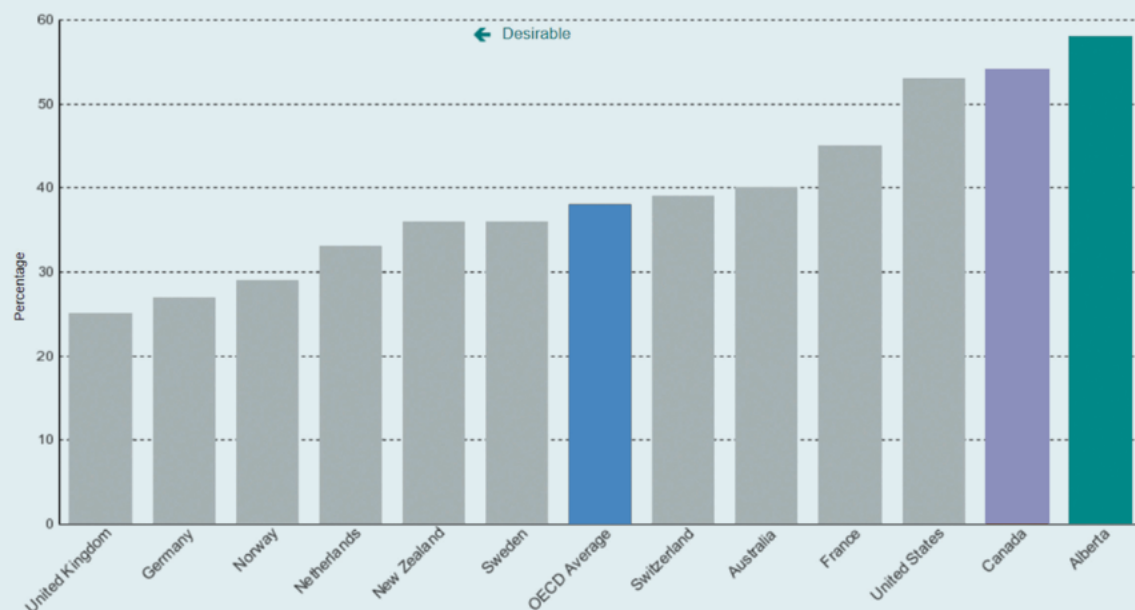
Percentage of adults who were able to get an appointment to see a doctor or a nurse on the same or next day last time they were sick or needed medical attention



**Notes:** Data is available for 11 CMWF countries and all provinces. | **Sources:** CMWF IHP 2013, The Commonwealth Fund.

## Poor Weekend/Evening Care

Percentage of adults who reported difficulty getting medical care in the evenings, on weekends or holidays without going to the hospital emergency department/ emergency room



**Notes:** Data is available for 11 CMWF countries and all provinces. | **Sources:** CMWF IHP 2013, The Commonwealth Fund.



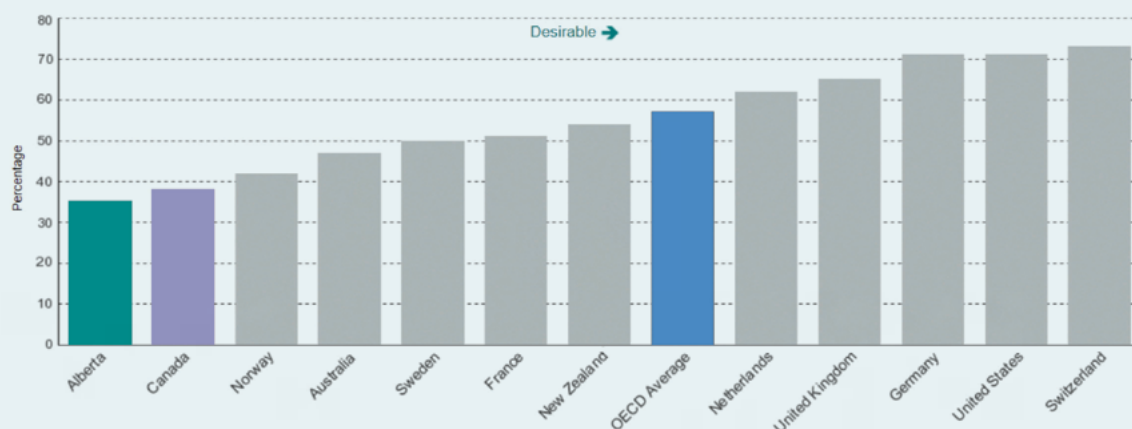
## b) More Specialist Physicians, Yet Albertans Wait Longer to See One

The percentage of Canadians waiting three months or longer to see a specialist for a new illness has gone up from 11 per cent in 2003 to 17 per cent in 2013. This was despite the fact that the number of specialist physicians per 100,000 Canadians has increased from 91 to 108 over the same period.<sup>296</sup>

Among developed nations, Canada has one of the highest percentages of patients who had to wait more than two months to see a specialist. Compared nationally and internationally, fewer Albertans see a specialist in less than four weeks.

### Wait Time: Specialist

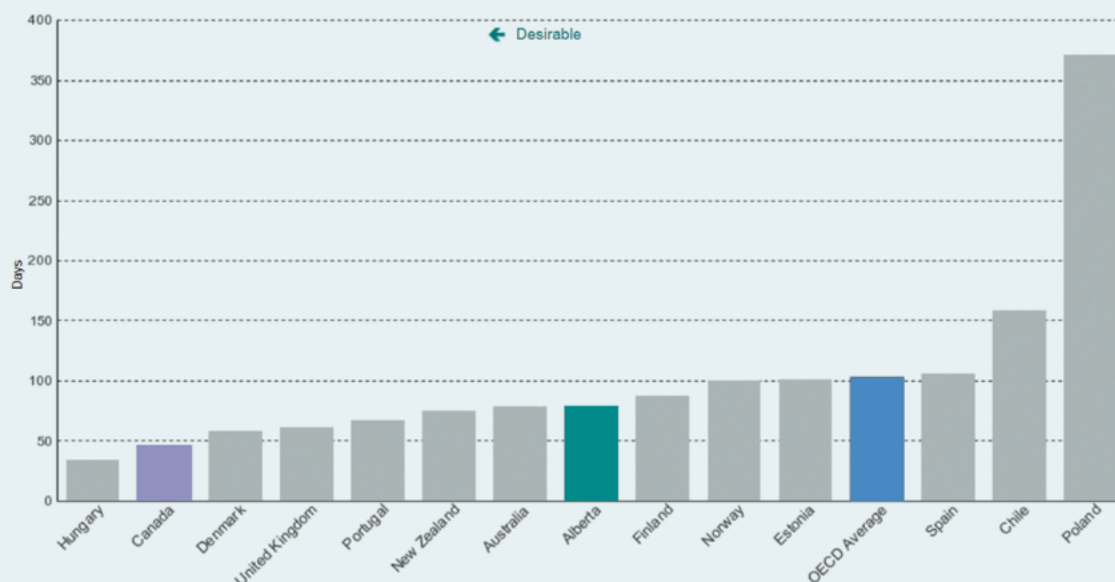
Percentage of adults who waited less than 4 weeks after they were advised to see or decided to see a specialist



Notes: Data is available for 11 CMWF countries and all provinces. | Sources: CMWF IHP 2013, The Commonwealth Fund.

### Wait Time: Cataract Surgery

Median wait time (in days) from specialist assessment (booking date) to cataract surgery



Notes: Data is available for 13 OECD countries and all provinces. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology page. | Sources: Wait Times Database, 2013, CIHI; OECD Health Data 2015.

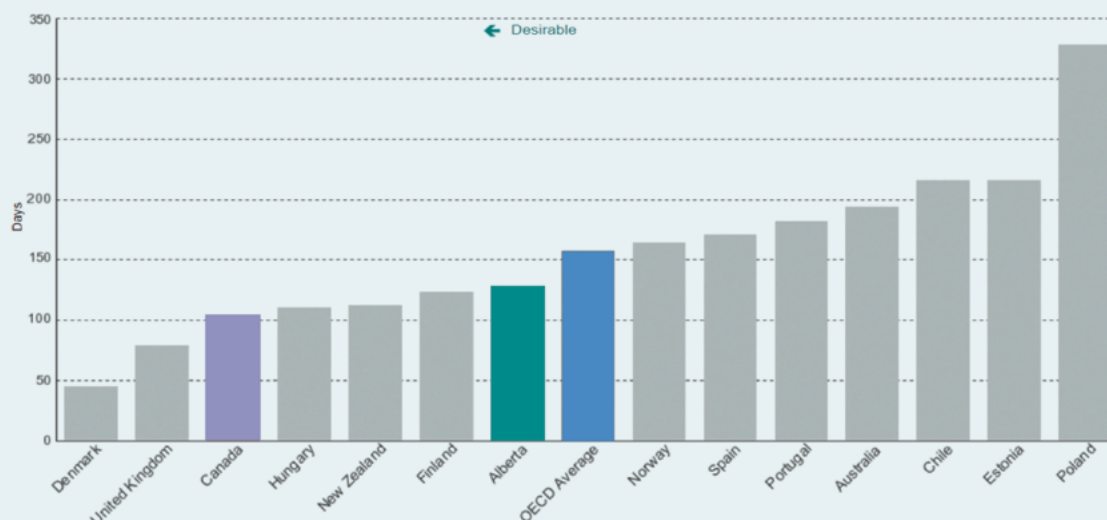
<sup>296</sup> Canadian Institute for Health Information  
[http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#/indicators/002/specialist-wait-times;/mapC1;mapLevel2;trend\(C1,C20018\).](http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#/indicators/002/specialist-wait-times;/mapC1;mapLevel2;trend(C1,C20018).)

### c) Access to Some Specialized Procedures is Good

Alberta is doing better than the OECD average (but worse than the Canadian average) in wait times for cataract surgery, as well as knee replacement.

#### Wait Time: Knee Replacement

Median wait time (in days) from specialist assessment (booking date) to knee replacement



**Notes:** Data is available for 13 OECD countries and all provinces. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology page. | **Sources:** Wait Times Database, 2013, CIHI; OECD Health Data 2015.

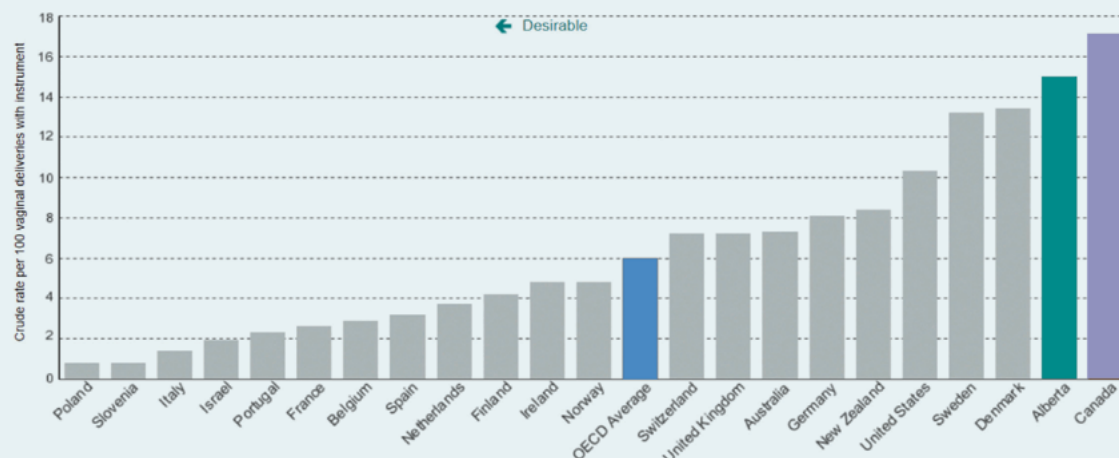
## 2.2 Patient Safety

### a) Trauma During Childbirth

On some patient safety indicators, such as trauma during childbirth, both Alberta and Canada are doing worse than the OECD average.<sup>297</sup>

#### OB Trauma: Instrument

Percentage of vaginal deliveries with third-or-fourth-degree obstetric trauma, per 100 instrument-assisted vaginal deliveries



**Notes:** Data is available for 21 OECD countries and all provinces. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology page. | **Sources:** DAD, 2013–2014, CIHI; MED-ÉCHO, 2013, MSSS. OECD Health Data 2015.

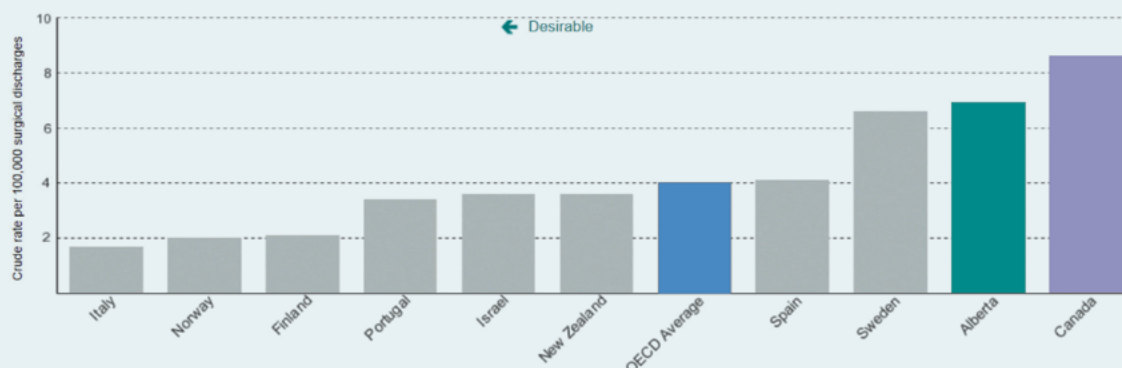
<sup>297</sup> Ibid, <https://www.cihi.ca/en/health-system-performance/performance-reporting/international/oecd-interactive-tool-health-status>.

## b) Foreign Objects Left in Patient's Body

Alberta is also worse than the OECD average for foreign objects left inside a patient after the procedure.<sup>298</sup>

### Foreign Body Left In

Rate of a foreign body left inside the patient's body during a procedure, per 100,000 medical and surgical discharges (age 15+)



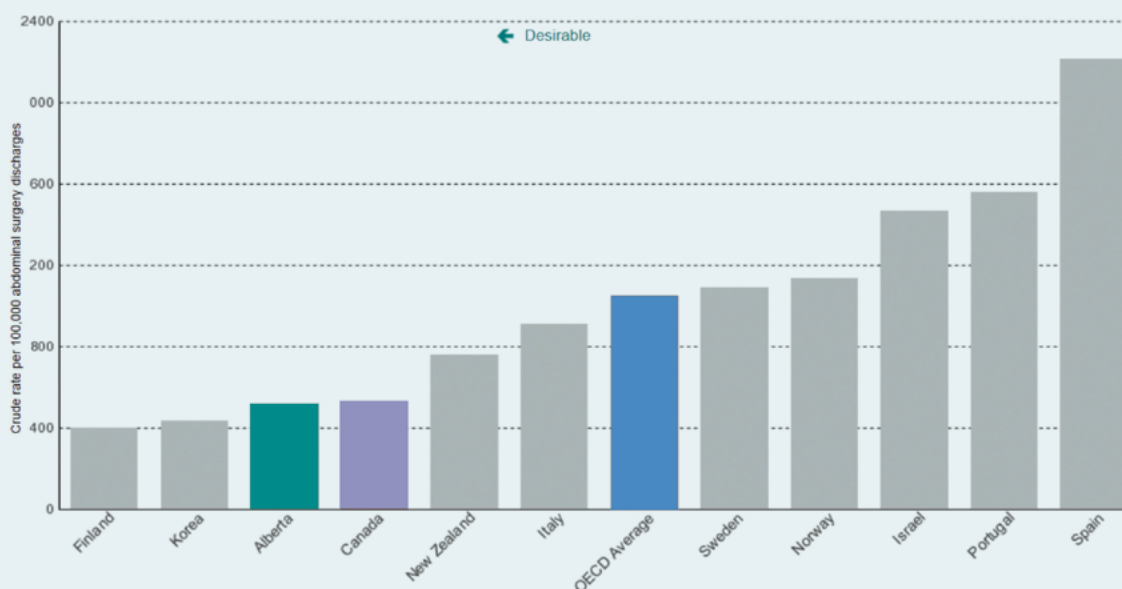
**Notes:** Data is available for 9 OECD countries and 8 provinces. Only countries using the same analytical methodology were included. Rates for Prince Edward Island and Newfoundland and Labrador are excluded due to data limitations. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology page. | **Sources:** DAD, 2012–2014, CIHI, MED-ÉCHO, 2012–2014, MSSS, OECD Health Data 2015.

## c) PostOperative Sepsis

On the other hand, rates of post-operative sepsis in both Alberta and Canada are better than the OECD average.<sup>299</sup>

### Post-Op Sepsis Abdominal

Rate of post-operative sepsis, per 100,000 discharges for abdominal surgery (age 15+)



**Notes:** New OECD indicator. Data is available for 10 OECD countries and 9 provinces. Only countries using the same analytical methodology were included. Rates for Prince Edward Island are excluded due to data limitations. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology page. | **Sources:** DAD, 2012–2014, CIHI, MED-ECHO, 2012–2014, MSSS, OECD Health Data 2015.

<sup>298</sup> Ibid, <https://www.cihi.ca/en/health-system-performance/performance-reporting/international/oecd-interactive-tool-health-status>.

<sup>299</sup> Ibid.

## 2.3 Quality of Care

### a) Potentially Avoidable Hospitalizations

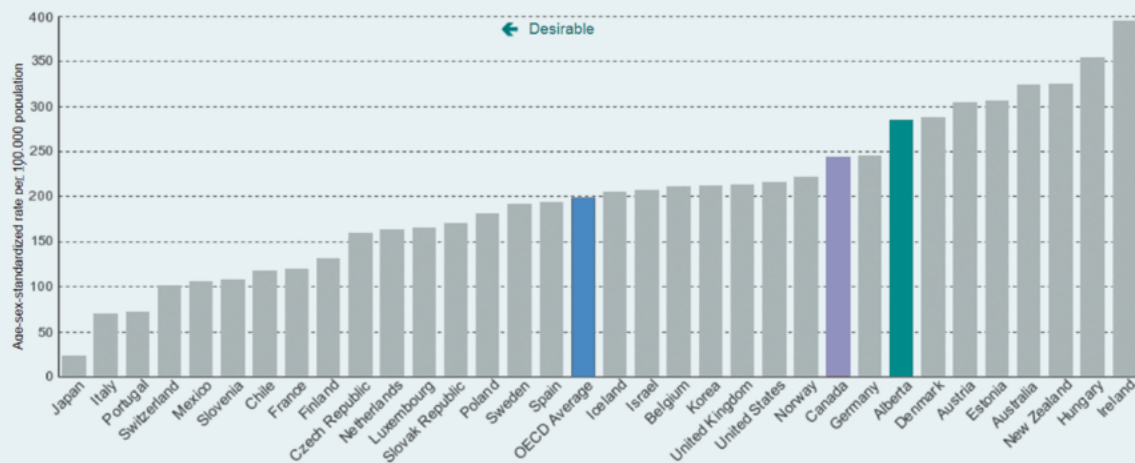
In general, readmissions to hospital within 30 days of discharge are considered opportunities to improve the acute care process (e.g., by not discharging patients too early or ensuring patients receive appropriate follow up care in the community). About 9 per cent of patients in Alberta are readmitted within a month after leaving a hospital (same as the national average).<sup>300</sup> This number has increased slightly from 8.3 per cent in 2010–11.

Another key opportunity to reduce avoidable hospitalizations is through minimizing ambulatory care sensitive condition admissions (e.g., chronic diseases including diabetes, asthma, COPD and heart disease). Such admissions could potentially be avoided through access to appropriate primary care in the community. Alberta's results in this area are mixed:

- The province's overall rate of ambulatory care sensitive condition admissions was 365 per 100,000 people – higher than the national average of 331.
- Alberta has higher admissions for chronic obstructive pulmonary disease than both Canadian and OECD averages.<sup>301</sup>
- Alberta has lower rate of hospitalization for such ambulatory sensitive conditions admissions for asthma and diabetes.<sup>302</sup>

#### Avoidable Admissions: COPD

Number of hospital discharges for COPD of people age 15 and older per 100,000 population



**Notes:** Data is available for 32 OECD countries and all provinces. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology page. | **Sources:** DAD, 2013–2014, CIHI; MED-ECHO, 2013, MSSS. Population estimates, 2013, Statistics Canada. OECD Health Data 2015.

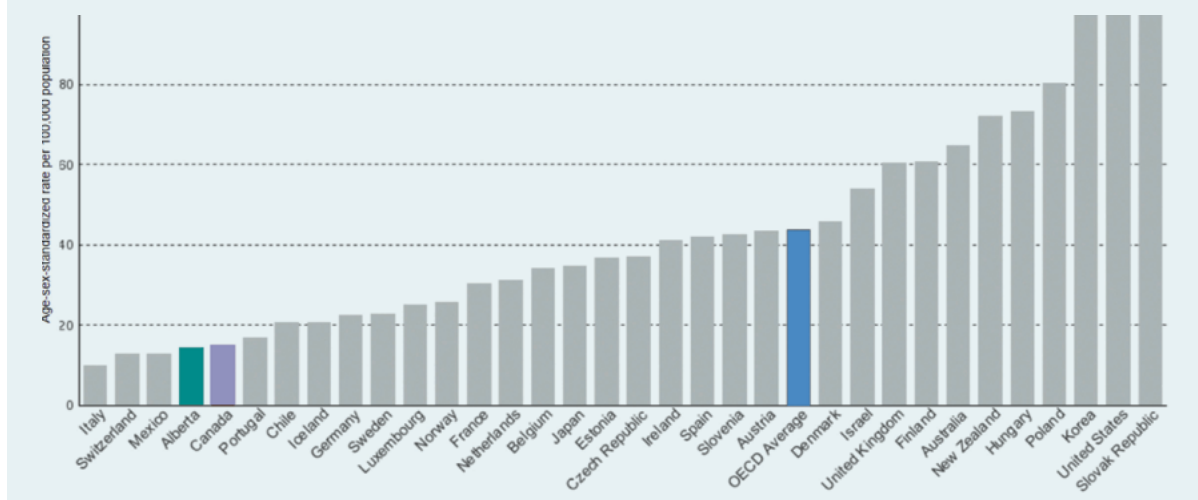
300 Canadian Institute for Health Information, [http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#/indicators/006/returning-to-hospital/mapC1;mapLevel2;trend\(C20018\)](http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#/indicators/006/returning-to-hospital/mapC1;mapLevel2;trend(C20018)).

301 Ibid, <https://www.cihi.ca/en/health-system-performance/performance-reporting/international/oecd-interactive-tool-health-status>.

302 Ibid.

## Avoidable Admissions: Asthma

Number of hospital discharges for Asthma of people age 15 and older per 100,000 population



**Notes:** Data is available for 32 OECD countries and all provinces. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology page. | **Sources:** DAD, 2013–2014, CIHI; MED-ECHO, 2013, MSSS. Population estimates, 2013, Statistics Canada. OECD Health Data 2015.

## b) Cancer Screening

Over the last decade Alberta's public healthcare systems has started to reach out to Albertans who might be at higher risk of developing cancer (e.g., AHS has developed a process to deliver a reminder to women who have not had the anticipated follow-up after an abnormal PAP result; mobile mammography program for Calgary and Edmonton).

The benefits of early detection of cancer are widely recognized – research indicates over 90 per cent of cervical cancers can be cured when detected early and treated, and death from colorectal cancer is 90 per cent preventable if the disease is caught at an early stage.

With this preventive mindset and based on best practices, physicians and AHS have standardized screening and early intervention approaches for some types of cancer (e.g., breast, cervical, colorectal).

In 2014–15, Alberta's colorectal screening rate for ages 50 to 74 was 39 per cent, a significant decline from the 53 per cent screening rate achieved in 2011–12.<sup>303</sup> These results are surprising, particularly as a new and non-invasive test (i.e., fecal immunochemical test or FIT) became widely available in 2013.

In comparison, rates of screening for cervical cancer in women ages 20 to 69 is around 78 per cent (approximately the same as the national average).

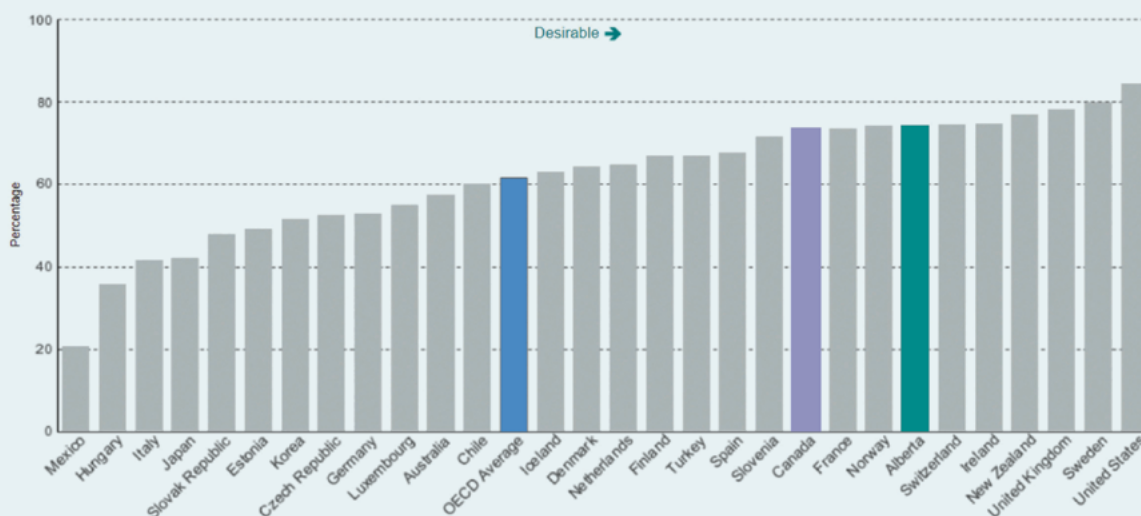
Alberta also does better than the OECD average and slightly better than the Canadian average in terms of breast cancer screening.<sup>304</sup>

303 <http://www.albertahealthservices.ca/assets/about/publications/ahs-pub-monitoring-measures-2015-2016-annual.pdf>.

304 Ibid.

## Cervical Cancer Screening (Survey)

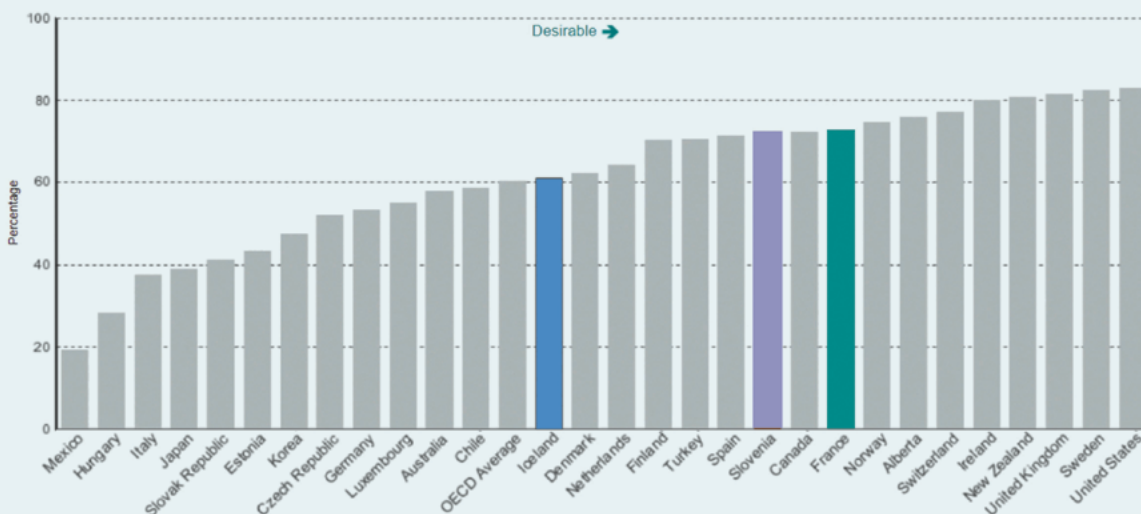
Percentage of women age 20 to 69 who reported having had a Papanikolaou (pap) smear test within the last 3 years (or according to the specific screening frequency recommended in each country)



**Notes:** Data is available for 28 OECD countries and all provinces. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology page. | **Sources:** CCHS, 2012, Statistics Canada. OECD Health Data 2015.

## Breast Cancer Screening (Survey)

Percentage of women age 50 to 69 who reported having had a mammogram within the last 2 years (or according to the specific screening frequency recommended in each country)



**Notes:** Data is available for 28 OECD countries and all provinces. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology page. | **Sources:** CCHS, 2012, Statistics Canada. OECD Health Data 2015.



## 2.4 Health Status

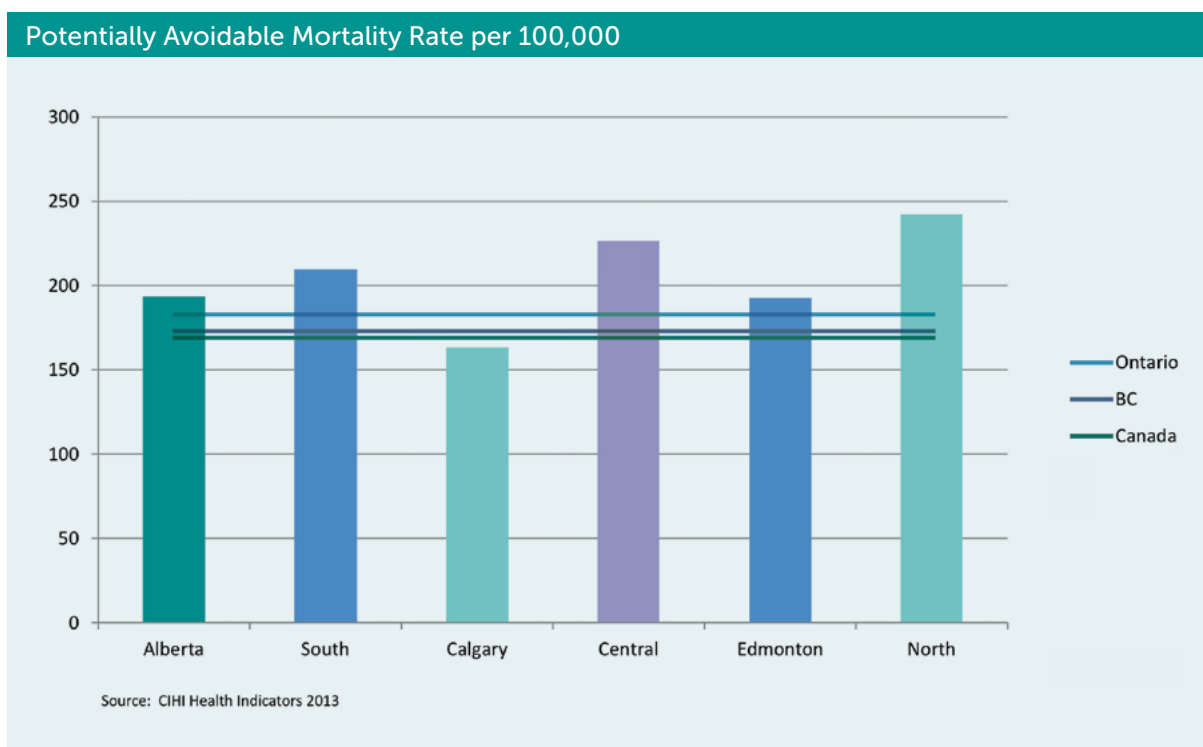
### a) Life Expectancy

Average life expectancy in Alberta and nationally is improving, but not as fast as in other developed countries. Canada's international life expectancy ranking went down from third best in 1990, to eighth in 2000 and twelfth in 2010. Between 2000–02 and 2007–09, average life expectancy in Alberta increased from 79.6 years to 80.7 years.<sup>305</sup>

### b) Avoidable Deaths

The indicator for deaths that are potentially avoidable with better prevention and care is improving in Canada and Alberta (for 2009–10, 171 deaths per 100,000 people in Canada and 178 deaths in Alberta). Although direct international comparisons are not available, CIHI research suggests that Canada ranks third-lowest among the G7 countries after Japan and France.<sup>306</sup> About 28 per cent of deaths of Canadians younger than 75 are from preventable or treatable causes.<sup>307</sup>

Avoidable mortality rates data show that Alberta performs below the level achieved in Ontario, BC and Canada as a whole.<sup>308</sup>



<sup>305</sup> Ibid, [http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#!/indicators/011/life-expectancy;mapC1;mapLevel2;overview;trend\(C20018\)](http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#!/indicators/011/life-expectancy;mapC1;mapLevel2;overview;trend(C20018)).

<sup>306</sup> Ibid, [https://secure.cihi.ca/free\\_products/health\\_indicators\\_2012\\_en.pdf](https://secure.cihi.ca/free_products/health_indicators_2012_en.pdf).

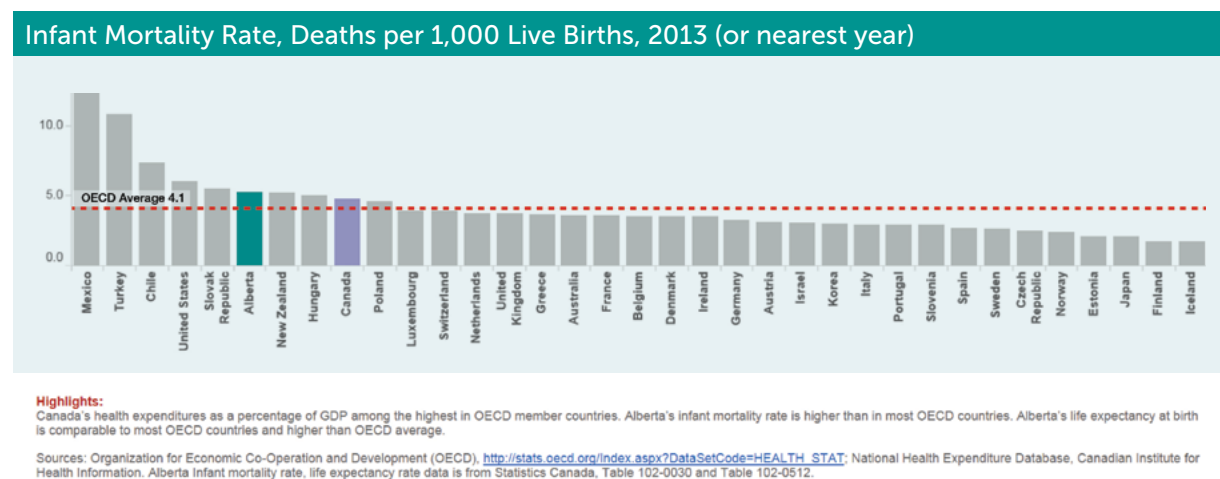
<sup>307</sup> Ibid, [http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#!/indicators/012/avoidable-deaths;mapC1;mapLevel2;overview;trend\(C1,C20018\)](http://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#!/indicators/012/avoidable-deaths;mapC1;mapLevel2;overview;trend(C1,C20018)).

<sup>308</sup> Avoidable mortality refers to untimely deaths that should not occur with timely and effective health care or other public health practices, programs and policy interventions. It focuses on population health attainment that can potentially be influenced by the health system. This chart shows rates of death before age 75 that could potentially have been avoided through all levels of prevention (primary, secondary, tertiary), expressed as age-standardized mortality rate.

### c) Infant Mortality

Infant mortality rates (number of infant deaths per 1,000 live births) have been declining across Canada and in Alberta, but not as fast as elsewhere in the developed world.

Between 1990 and 2010, the infant mortality rate in Alberta has decreased from 8.1<sup>309</sup> to 5.9—a significant achievement.<sup>310</sup> By contrast, in 1990 the province of Andalusia in Spain had an infant mortality rate of 8.9—worse than Alberta. By 2010, Andalusia was already ahead of Alberta with only 3.9 infant deaths per 1,000 live births.<sup>311</sup> During this period, Andalusian Health Services (a publicly funded provincial healthcare delivery organization) had deployed a provincial electronic health record system, drastically expanded primary care services, deployed care pathways, and integrated community and hospital service delivery.



### d) Stroke and Heart Disease Mortality

In some areas, such as stroke mortality, Alberta and Canada are doing better than other OECD jurisdictions.<sup>312</sup>

In other areas, such as heart disease mortality, Alberta falls below the OECD average.<sup>313</sup>

309 Canadian Medical Association Journal, <http://www.cmaj.ca/content/157/5/535.full.pdf+html>.

310 Statistics Canada, <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/health21a-eng.htm>.

311 Institute of Statistics of Andalusia, <https://www.juntadeandalucia.es/institutodeestadisticaycartografia/InformacionEstadistica/RevistaAniversario-en.pdf>.

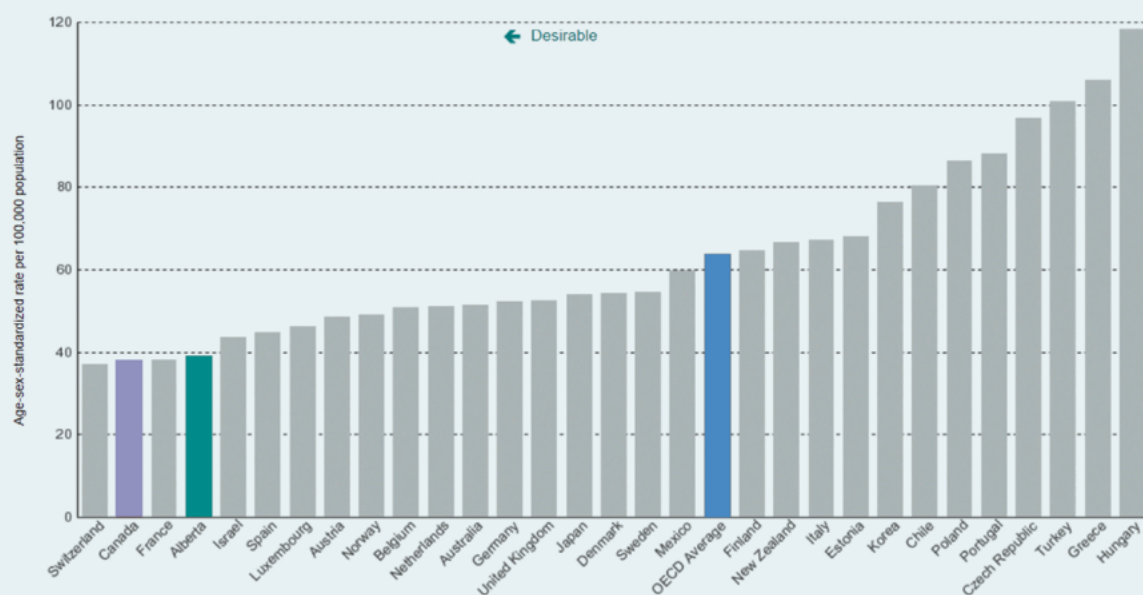
312 Canadian Institute for Health Information, <https://www.cihi.ca/en/health-system-performance/performance-reporting/international/oecd-interactive-tool-health-status>.

313 Canadian Institute for Health Information, <https://www.cihi.ca/en/health-system-performance/performance-reporting/international/oecd-interactive-tool-health-status>.



## Stroke Mortality

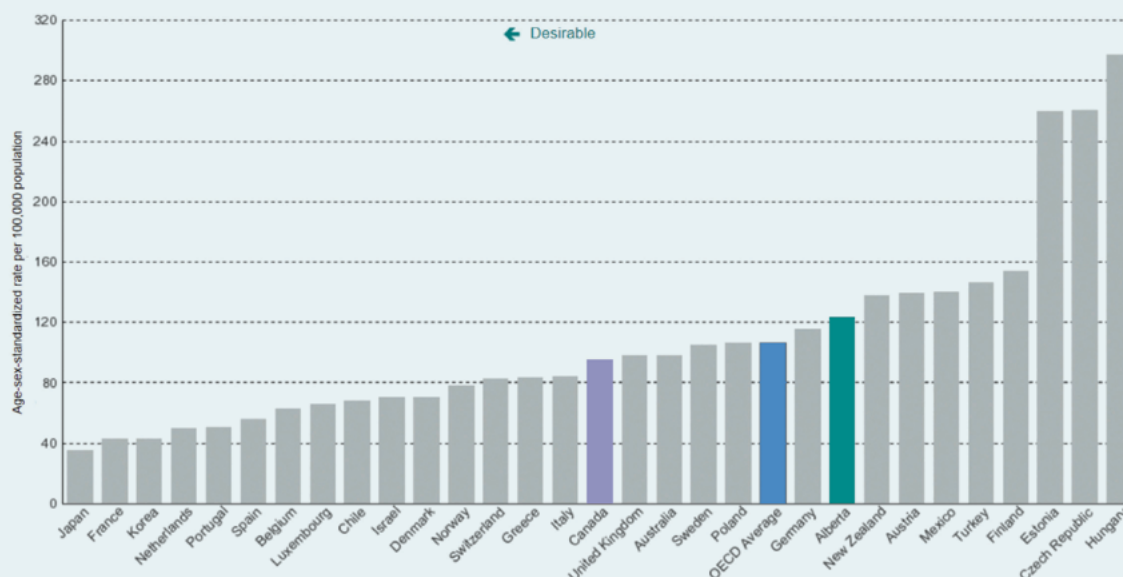
Number of deaths due to cerebrovascular diseases per 100,000 population



**Notes:** Data is available for 29 OECD countries and all provinces. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology page. | **Sources:** Canadian Vital Statistics, 2011, and Population estimates, 2011, Statistics Canada. OECD Health Data 2015.

## Heart Disease Mortality

Number of deaths due to ischemic heart disease per 100,000 population



**Notes:** Data is available for 29 OECD countries and all provinces. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology page. | **Sources:** Canadian Vital Statistics, 2011, and Population estimates, 2011, Statistics Canada. OECD Health Data 2015.

# 3

## Overview of Select Physician Compensation Models

### 1. Background

The majority of the roughly 10,000 physicians in the province are compensated on a fee-for-service basis under the master agreement negotiated between the AMA and the department. Procedure fees are set out in the Schedule of Medical Benefits or alternative relationship plans (ARPs) negotiated with physicians by the department. The department pays about \$4.6 billion each year for physician services.

AHS has its own master service agreements with the AMA for the three physician groups: radiologists, pathologists and oncologists. AHS also directly employs a number of physicians in administrative and management roles. Finally, AHS participates in various academic ARPs established by the department.

### 2. Fee-for-Service Compensation

Fee-for-service is the primary means through which the department compensates physicians.

Key challenges with fee-for-service include:

- Physicians are paid for quantity. This can drive production of physician services, but does not link their compensation directly to quality or achievement of healthcare system objectives.
- The incentive to provide more services can lead to low-value or no-value services being provided (e.g., unnecessary repeat visits or minimal time spent with each patient).
- The “whites-of-the-eyes” problem – because, generally speaking, only the physician can be compensated, a physician must visit with each patient briefly for the practice to be paid, even if the care needed could be provided by a nurse.
- No inherent incentive to provide continuity of care, because each payment to the physician is for a specific procedure or isolated care episode.<sup>314</sup>
- No direct incentive or compensation to support care through interdisciplinary teams in primary care, although limited support for teams is provided by \$200 million/year in PCN funding.

<sup>314</sup> For example, the College of Family Physicians of Canada recommended “Blended payment models should be introduced in every province/territory as a preferred option for remunerating family physicians in practices functioning as Patients’ Medical Homes.” A Vision for Canada: Family Practice – The Patient’s Medical Home. CFPC. September 2011, p. 54.

*"... In most healthcare scenarios, a fee-for-service is the least effective approach to provider reimbursement. This is particularly true if the health condition in question is chronic. In primary care, a meta analysis shows that a fee-for-service approach, when compared to salaried providers and to capitated payment systems, generated more clinical activity, and hence a greater expense, but did not improve patient outcomes.*

*Data from the Australian National University show a strong linear relationship between the number of primary care providers and the number of services rendered. That is, if the number of providers is doubled, then the number of services provided also*

*doubles. It follows that the only way to manage costs in primary care under fee-for-service is to limit the number of eligible providers, or limit consumer access to those providers. This is clearly counterintuitive in relation to better healthcare. There are some situations in which transactional funding makes sense—examples include cataract surgery for an otherwise independent older person, where the surgery enables them to drive again and regain independence, or joint replacement surgery in an otherwise well working age person."*

**Dr. Des Gorman, Executive Chairman  
Health Workforce New Zealand**

Another significant ongoing challenge with any fee-for-service schedule is whether individual fees represent the fair value of services provided. This is because medical practice and technology change over time, which can affect physician effort and cost to provide a service. Alberta's Schedule of Medical Benefits (SOMB) has over 3,000 individual fee codes, two-thirds of which are used frequently.

Attempts to gain meaningful cost reductions by changing SOMB have proven to be ineffective. For example, in 2014 the joint department–AMA Physician Compensation Committee began reviewing SOMB fee codes. More than a year later and after more than 28 meetings, the committee recommended changes to only four fee codes. The impact of these changes represented less than half of one per cent of the total fee-for-service billings.

### 3. Alternative Methods for Physician Compensation

Alternative compensation methods include capitation and salary:

- capitation or salary can be an incentive to underprovide service (doctor gets fixed payment regardless so less effort = more free time)
- capitation can have inherent continuity of care (and preventive care) incentives since patients are formally attached/panelled, income for that patient is fixed and keeping them healthy can reduce future care effort
- capitation can be applied at an "agency" level with physicians paid salary/wages (e.g., AHS clinic such as Royal Alex Family Medicine Centre, which combines active treatment with teaching). It could also work in a PCN or FCC model if PCNs and FCCs were adjusted to accommodate the concept.

### 3.1 Capitation (or Blended Capitation)

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Capitation guarantees an annual basic fee paid for each rostered patient for delivery of predetermined basket of common primary care services. The amount of the capitation payment for each patient is typically adjusted to reflect their level of healthcare need based on age and gender. For example, the annual payment for providing outpatient non-emergency primary care services for a 20-year-old male might be \$50 compared with \$300 for a 75-year-old female. The physician receives this basic fee whether or not they see the patient.

The blended model combines patient-based (capitation) payments and volume-based payments through fee-for-service. Services provided to non-rostered patients are billed under fee-for-service. Services provided to rostered patients by physicians other than those in the clinic are deducted from the clinic's capitation revenue. Crowfoot and Taber are currently the only two primary care practices in Alberta paid by capitation.

*Capitation in primary care is not universally successful. For example, the form of capitation to fund primary care in New Zealand is not accountable against performance, such as how long it takes to get a consultation with a suitable provider, or against quality health outcomes for the enrolled population. The result has been to encourage primary care groups to enroll as many low needs patients as possible, then reduce the cost to service them, generally by making providers unavailable. Since it was introduced over a decade ago, almost a day per week has been lost per family physician at their usual place of work during normal working hours, and the hours per week these GPs do on call or after hours has reduced from an average of 10 to about four.*

*The response has been the advent of urgent care clinics (which are an added fee-for-service cost to consumers), reduced continuity of care, and increasing demand for emergency department physicians. In addition, given that the major cause of unmet need in primary care was the unavailability of GP appointments (along with factors such as childcare and transport), rather than the cost of an appointment, the unmet need has actually increased!*

*The latter has been exaggerated by the payment of supplemental costs for high needs patients to provider groups, rather than funding being tagged to the individual ("funds follow the patient"). Although the administrative cost of such tagging is considerable, it is the only way the additional needs of such individuals can be appropriately addressed. The problem with supplemental costs being paid to providers is that once the supplement is paid, any additional services provided to these high-health-needs consumers is a cost to the provider. As such, this additional funding is regarded as uncommitted provider revenue that goes straight to the provider's "bottom line."*

*Capitation in primary care can be effective if it is implemented and administered in the right way. In many cases, not only is health socially determined, but health conditions have a broad social impact and only funding mechanisms that involve the entire range of social agencies that bear the cost of health outcomes is likely to be effective (i.e., a social investment approach). This is a long way from fee-for-service.*

**Dr. Des Gorman, Executive Chairman  
Health Workforce New Zealand**

## 3.2 Shared Savings Initiatives

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The U.S. Centers for Medicare and Medicaid Services (CMS) have developed compensation models designed to share savings achieved by improving care quality with the physicians and medical practices who contribute to achieving those savings. For example, the Comprehensive Primary Care Initiative Shared Savings Methodology was launched in 2012 as a four-year multi-payer initiative designed to strengthen primary care. Under the program, CMS collaborates with commercial and state health insurance plans in the region to offer population-based care management fees and shared savings opportunities to participating primary care practices, to provide five comprehensive primary care functions:

- risk-stratified care management
- access and continuity
- planned care for chronic conditions and preventive care
- patient and caregiver engagement
- coordination of care across the medical neighborhood

Physicians enrol in the program and CMS sets benchmark expenses across care settings for the practice's patients (primary care, acute). CMS calculates net savings over time and shares the savings with practices that have maintained performance/quality metrics during the savings period.

## 3.3 Bundled Payments

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Bundled payments are a new alternative method for funding healthcare services.<sup>315</sup> “Bundle of care” is defined as the set of treatments or services provided to a patient in a care episode. For example, if a patient has a stroke, the episode of care comprises the services provided to restore the patient to optimal health. A bundled payment is a single amount used to fund the total bundle of care. If the cost to providers is more than the bundled payment, providers must cover the difference. If the cost is less than the set amount, providers keep the extra. This gives providers incentive to deliver efficient, effective and high-quality care, to avoid costly readmissions and re-hospitalizations for which they would be responsible.

Bundled payments promote integrated care because a single bundled payment must be divided among the providers across the care continuum, promoting conscious awareness of the effects of the actions of each provider on other providers in the care chain. The objective is to improve coordination among providers by aligning financial incentives, resulting in improved quality of care and access to services.

In Alberta, there is limited use of bundled payments to physicians only. For example, a surgeon might be paid a fixed amount for performing not only the surgery but also the pre and post-operative care as part of one care episode. The bundled payment model is currently not applied in a broader context that includes compensating other care providers and services across the entire care continuum (treatment of chronic diseases, for example). Evidence suggests bundled payments are best suited for conditions with clearly established and finite care pathways, and are less suited to complex cases.

As with all compensation arrangements, accurate and timely data must be available to establish a fair payment amount. An emerging trend in Alberta is for hospitalist physicians to perform pre and post-operative patient care on behalf of an operating physician. If not managed properly, this practice could result in payment inequity between physicians and double payments for the same work. This would happen if a surgeon who receives a bundled payment offloads their post-operative duties to hospitalists, and the hospitalist submits payment claims for any post-operative services they provide.

<sup>315</sup> Evidence and Perspectives on Healthcare Funding in Canada, UBC, 2015; <http://healthcarefunding.ca/key-issues/bundle-test-2>.

### 3.4 Other Alternative Compensation Plans

Across Canada, health ministries continue to evaluate how best to offer cost-effective primary care:

- **Enhanced fee-for-service:** A percentage bonus applied to the FFS fee for common comprehensive services provided to rostered patients (e.g., 10 per cent to 15 per cent based on age). There are additional incentives for after-hours and weekend care (an additional 30 per cent of the FFS fee). An example of this type of model in Ontario is a Family Health Group (FHG). This model enhances the traditional FFS model where physicians are remunerated for seeing their patient. Services provided to non-rostered patients do not qualify for bonuses, so there is an incentive to roster all patients.
- **New patient incentives:** Ontario offers a fixed bonus to physicians who accept “new” patients (those with no family doctor) to their practices. There are usually a limited number of new patient enrolment bonus payments per year. For example, there might be a \$100 to \$180 (based on age) bonus for the first 60 new patients accepted per year to a practice. Other bonuses might be offered for accepting new patients with complex medical issues.
- **Additional primary care prevention and funding programs:** have been initiated in Alberta and Ontario to support a collaborative multidisciplinary approach. In this scenario, a group of physicians applies to the department or regional health authority for additional funding to augment primary care delivery, and offer preventive care and health promotion programs. This additional funding is dedicated to add nurses, nurse practitioners, pharmacists, social workers, dietitians, physician assistants and physiotherapists to the collaborative care team. Funding is often based on a capitated rate per rostered patient, as well as potential additional funding streams. These monies are directed to funding the allied healthcare providers and programs offered and are usually independent of the payment model the physicians participate in. Examples include the Primary Care Networks in Alberta and the Family Health Teams in Ontario.<sup>316</sup>

#### Case in Point – Proactive Specialist Care at Kaiser Permanente

The most common causes of kidney disease include diabetes, high blood pressure, and hardening of the arteries (which damages the blood vessels in the kidney). Recent estimates suggest 11 to 14 per cent of adults have early to late stage chronic kidney disease, a condition which is debilitating, potentially fatal, and expensive to treat. The benefits of early nephrology care (kidney specialist) are well-established, and include slower progression of disease, reduced mortality, and better preparation for subsequent treatment. However, up to 40 per cent of patients do not see a nephrologist before the onset of end-stage kidney disease.

To improve outcomes, a nephrologist wanted to reach beyond traditional referral practices to help manage care for 10,000 patients in his region with chronic kidney disease. Using his health system's clinical information system, he monitors primary care provided to patients vs. evidence-based clinical practice guidelines, checking patient demographics and “problem list,” lab results and medications. He uses a proven mathematical model to predict the probability of disease progression, and when

appropriate, provides an unsolicited e-consult to the primary care physician (e.g. recommends a patient be referred to a nephrologist or treatment recommendations to avoid need for referral).

**Five year Results:** Increased early interventions for high-risk patients, and decrease of 66 per cent in late referrals to specialists (i.e., less than four months prior to onset of end stage kidney disease).

The physician succeeded by turning the referral system on its head (i.e., proactive vs. passive specialist care). While this initiative clearly benefits patients and the healthcare system, it would require significant changes in compensation and organizational culture in healthcare for this to happen in Alberta. If it ever does, there is tremendous potential for improving care across other specialties and health conditions using similar methods.

**Connected for Health:  
Using Electronic Health Records to Transform Care Delivery**  
Louise L. Liang, Kaiser Permanente, 2010

316 *Evaluating Practice Opportunities*, CMA, p. 12.



# 4

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# Evolution of Clinical Information Management in Alberta

Alberta has tried to integrate health information in the past. It has made progress in transferring clinical information from paper to electronic format, but has not fundamentally changed the use of that information in healthcare delivery and management of the healthcare system.

Alberta recognized early the benefits of using information and related technology to improve the efficiency and quality of healthcare and launched several initiatives to improve the use of information and related technology in the healthcare sector:

- 1997: Wellnet launched to deliver province-wide EHR initiatives.
- 2001: Pharmaceutical Information Network launched to provide a single provincial repository of pharmaceutical information.
- 2001: Physician Office System Program launched to increase EMR adoption among community physicians.
- 2006: Netcare launched as a single provincial health information viewer.
- 2011: Interactive Continuity of Care Record concept introduced.
- 2016: AHS released an RFP to procure a clinical information system.

Some of these initiatives place Alberta ahead of other Canadian provinces. Netcare is well regarded throughout Canada for its benefits in improving healthcare delivery, and Netcare remains the only province-wide portal for viewing test results and discharged medications. With respect to EMR use, 86 per cent of Alberta family physicians use EMRs, compared with 73 per cent nationally.

Despite enviable access to digital health information, Alberta's healthcare system is still not using clinical information and related technology to greatest advantage. The province's attempts to integrate clinical information have consistently fallen short of their objectives and potential.



## 1. Wellnet

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In the mid-1990s, the Alberta government's Wellnet initiative was to lay out a "road map" for establishing a province-wide health information system, provide each Albertan with a personal health record (PHR) and make relevant health data available for individual providers at point of care.<sup>317</sup> Family physician offices and community pharmacies were to be included in Wellnet. In 1998, Wellnet was envisioned as a long-term solution that would take 6 to 10 years to implement, and result in a fully integrated health information system across the province. The Wellnet initiative appears to have gradually faded over the years, and 10 years later, in 2008, Alberta still had no integrated health information system.

Wellnet was a precursor to Netcare and Pharmaceutical Information Network – two very important developments that faced their own challenges.

## 2. Netcare

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Without a doubt, the government's implementation of Netcare<sup>318</sup> is a significant achievement, and is recognized nationally as a leading practice. Frontline providers have remarked on the benefits of instant access to patient lab results and diagnostic imaging reports.

Netcare is often inaccurately referred to as Alberta's provincial electronic health record. It is not a true electronic health record. By design, Netcare is simply a large repository of diagnostic data. It was not developed to offer care management tools, and does not include key healthcare data. Healthcare providers cannot enter information about a care episode, diagnosis, treatment history or a care plan directly into Netcare. That information is isolated in either paper records or an electronic medical record system at the provider's office. Netcare also offers no analytical functionality. Providers can view information only one patient at a time.

Netcare currently has over 50,000 users and provides access to a significant amount of health information critical to the delivery of healthcare. Netcare contains:

- 96 per cent of medications dispensed at community pharmacies
- 99 per cent of laboratory results
- 95 per cent of diagnostic images
- 92 per cent of hospital transcribed reports
- 100 per cent patient demographic information
- 100 per cent provider information

Netcare does not support active case management as it has no functionality:

- for providers to enter information about patient health status or treatment outcomes
- to include or actively manage care plans
- to navigate care and monitor patient progress through the system
- for providers to coordinate care and support a care team environment
- to use health data to analyze quality and use of provider services

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<sup>317</sup> Alberta WellNet: Better Information for Better Health. Issue 3, May 1998. Legislature library: CA2ALPH 448, 3.

<sup>318</sup> <http://www.albertanetcare.ca>.

Netcare does not include all key health information:

- primary care data, including physician care plans not in Netcare
- AHS community services data not in Netcare (e.g., mental health services, homecare)
- hospital pharmacy data not in Netcare
- highlevel hospital discharge summaries in Netcare, but detailed treatment records are not

In 2011,<sup>319</sup> the department and AHS planned to:

- by November 2012, link Netcare to electronic medical record (EMR) systems of family physicians
- by March 2014, enable EMR-to-EMR data transmission links to support the electronic referral process
- by March 2015, complete system-to-system messaging mechanism to allow continuity of care records, including alerts between EMRs and Netcare

At the time of this report, none of these goals was accomplished.

### 3. Interactive Continuity of Care Record

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In 2011, the ICCR was planned as a foundation pillar of Alberta's health IT strategies,<sup>320</sup> to provide patient access to online care plans, and allow providers to collaboratively manage shared care plans:

- for diabetics, by 2012
- for cardiac patients and bone and joint patients, by 2013
- for cancer and other chronic conditions, by 2016

During previous audits and at the time of this report, none of these goals was accomplished.

### 4. Physician Electronic Medical Records

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From 2001 to 2014, the department spent \$300 million of public money on the Physician Office System Program (POSP) to support family physicians transition to electronic medical record (EMR) systems. This was an important opportunity for physicians to acquire tools needed to provide better patientfocused care, improve clinical information sharing and use information for ongoing quality improvement.

The medical profession and the government have largely missed this opportunity. Rather than adopting a single solution integrated with Netcare and other systems, the government provided funds for individual physicians to adopt an EMR system of their choice. There was no requirement for these systems to link with each other or with clinical information systems at regional health authorities. Even if two family physicians use the same EMR software, their systems are not set up to communicate with each other. In effect, \$300 million later there is still no flow of health data from primary care to the rest of the healthcare system.

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319 Alberta's 5-Year Health System IT Plan, 2011-2016, p. 42. This document is no longer on the Department of Health website.

320 Alberta's 5-Year Health System IT Plan, 2011-2016, pp. 5, 16, 42. This document is no longer on Alberta Health website.

There is no mechanism to evaluate how physicians use EMRs. A key objective of deploying EMRs was to give family physicians better tools to care for their patients. Most EMRs have modules for case management, care planning, panel management for the chronically ill, and functionality to monitor and analyze quality of care. During the PCN audit in 2012, the chronic disease management audit in 2014 and the current project, we were consistently told that many physicians continue to use their EMRs simply for billing and scheduling.<sup>321</sup> In a way, using an EMR only to schedule patient visits and to send invoices to the department, is like buying a supercomputer to play Tetris.

In summary:

- Physician uptake was strong, but not complete (over 80 per cent of Alberta's family physicians now use an EMR system, but more than 10 per cent are still on paper records).
- Albertans have no on-line access to their own healthcare information.
- More than a dozen separate EMR systems are in use – none of them talk to each other and none are linked to any of the central information systems in the province (e.g., Netcare), so patients cannot request their information be shared electronically between providers.
- The proliferation of EMR systems renders any collaboration by the profession on “meaningful use” cumbersome and inefficient at best (e.g., electronic order sets, checklists and templates to bring clinical decision support to the point of care).
- Physicians continue to capture patient information in different ways and to different extents in their EMRs, in effect rendering the data not available or useful outside their own office. When information is shared between providers, it is still often done by fax.

Valuable work has been done (e.g., by the HQCA) to analyze data from some PCNs and AHS. Because different EMRs capture data differently, this process is very time consuming and resource intensive. Without agreement on standardized data sets and definitions, ongoing evaluation and benchmarking of provider performance and patient outcomes will likely be resource intensive to the extent of being impractical.

## 5. Pharmaceutical Information Network

Pharmaceutical Information Network (PIN) was formally implemented in 2001. The initial uptake was slow. The Health Information Amendment Regulation came into force February 5, 2007. Under this amendment, the Minister of Health directed all pharmacists working in Alberta's community-based pharmacies to submit drug-dispensing information to PIN starting September 1, 2007.<sup>322</sup> Prescriptions that have been filled can be viewed in Netcare. Although implementation of PIN was an important step forward, its benefits have not been fully realized.

PIN came with an ePrescribe functionality, which has not been deployed. With the ePrescribe module inactive, PIN is like a 10-storey building with lights on only on the first five floors. ePrescribe would effectively eliminate the need for paper prescription slips and offer opportunities to significantly improve medication management. ePrescribe would allow physicians to enter prescriptions electronically, instantly making them available to the pharmacy, and documenting a confirmation that a prescription has been picked up by the patient. This would offer a more comprehensive record of treatment, minimize medication errors, and create a tool for patients and providers to monitor treatment progress and compliance with treatment orders.

<sup>321</sup> Exact statistics on how EMRs are used by physicians are not available because no one is collecting this information or monitoring EMR use.

<sup>322</sup> Copy of Ministerial directive, dated March 26, 2007 provided by Alberta Health.

While physicians continue writing prescriptions on paper slips, medication reconciliation remains a major challenge and a patient safety risk throughout the healthcare system, and patients cannot view and manage their own prescription data.

## 6. Personal Health Record

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In a high-performing healthcare system, a PHR allows patients to communicate remotely with care providers, and allows providers to remotely monitor a patient's condition. While some small pilot projects have been undertaken, this technology is not generally available in Alberta. As a result, the vast majority of Albertans still have no on-line or ready access to their personal health information. This limits their ability to participate fully in their own care, a key factor for success of that care.

In 2009, the department launched its PHR initiative, called myHeath.Alberta.ca.<sup>323</sup> Although the project has been in development for several years and received well over \$30 million in public funding, it has continually failed to meet milestone dates

<sup>323</sup> <https://myhealth.alberta.ca>.



# APPENDIX A

## Legislation Timeline

- 1867** *British North America Act*  
Provinces are given jurisdiction over most health services.
- 1907** *Public Health Act*<sup>324</sup>  
Provincial Board of Health is formed.
- 1918** *Municipal Hospitals Act*  
Province transfers public services to municipalities. Start of provincial assistance to Albertans in need.
- 1919** *Department of Public Health Act and Mothers' Allowance Act*  
Alberta is the second province to establish a Department of Health.<sup>325</sup> Alberta Hospital Association is formed. *Mothers' Allowance Act* is passed to benefit poor "mothers (generally widows) with dependent children."<sup>326</sup>
- 1928** *Sexual Sterilization Act*<sup>327</sup>  
The *Sexual Sterilization Act* is passed in 1928. The Act allows for sterilization of mentally disabled persons. It was repealed in 1972.
- 1929** *Public Health Act*  
The *Public Health Act* is amended in 1929. The amendment gives the minister the "power to establish health districts where requested."<sup>328</sup>
- 1936** *Tuberculosis Act*<sup>329</sup>  
The *Tuberculosis Act* comes into force. It provides free diagnosis and treatment to all Alberta residents.<sup>330</sup>
- 1947** *Public Welfare Act and Nursing Aides Act*  
The *Public Welfare Act* is amended. It gives the GOA responsibility for hospitalization of old age pensioners. The GOA passes the *Nursing Aides Act*.<sup>331</sup> The act licenses the Certified Nursing Aide.
- 1952** *Health Unit Act*<sup>332</sup>  
The *Health Unit Act* is passed. The act allows for the province to be divided into health units, each with its own board and system of administration.

324 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p.21; Alberta Health (1991, p.22); Sommerville and Defries (1959, p. 7).

325 Alberta Health (1991; p.29).

326 Reichwein (2007, p. 11).

327 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 38; Alberta Health (1991, p.30).

328 Reichwein (2007, p. 13).

329 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 41; Alberta Health (1991, p.2).

330 Alberta Health (1991; p.31).

331 <http://www.clpna.com/about-clpna/history-of-alberta-lpns/>.

332 Carney (1994, p. 26); Reichwein (2007, p. 15).

- 1957** *Hospital Insurance and Diagnostics Services Act*<sup>333</sup>  
The act is proclaimed, “setting up prepaid coverage for hospital care and cost sharing of hospital insurance plans for virtually all Canadians.”<sup>334</sup>
- 1960** *Auxiliary Hospitals Act*  
The *Auxiliary Hospitals Act* passes in 1960.<sup>335</sup> It brings auxiliary hospitals under the jurisdiction of the provincial government.
- 1964** *Nursing Home Act*  
The *Nursing Home Act* passes in 1964.<sup>336</sup> It brings nursing homes under the jurisdiction of the provincial government.
- 1966** *Department of Health Act*  
The *Department of Health Act* replaces the *Department of Public Health Act*.<sup>337</sup>  
The act divides the Department of Health into two sections – Hospital Services and All Other (Health) Services.
- 1969** *Alberta Health Care Insurance Act*  
The Health Care Insurance Commission is established to “administer the new Alberta Health Care Insurance Plan.”<sup>338</sup>
- 1978** *Nursing Assistant Registration Act*  
The Registered Nursing Assistant (RNA) designation is formed through passage of the Nursing Assistant Registration Act. RNA was later renamed Licensed Practical Nurse (LPN) in the 1990s.
- 1984** *Canada Health Act*<sup>339</sup>  
Albertans receive full coverage for medically necessary physician and hospital services.
- 1994** *Regional Health Authorities*  
Over 200 separate boards and administrations are replaced by 17 regional health authorities.<sup>340</sup>
- 1997** *Alberta Wellnet*  
The Alberta EHR provincial program begins in 1997 with the announcement of Alberta Wellnet, with the mandate to develop and deliver province-wide EHR initiatives.
- 1999** *Government Organization Act*  
Ministry of Health and Wellness is established under the authority of the *Government Organization Act* to set policies to lead, achieve and sustain a responsive, integrated and accountable health system.
- 2003** *Trilateral Master Agreement*  
Alberta Health and Wellness (AHW), Alberta Medical Association (AMA) and Alberta’s Regional Health Authorities (RHAs) ratify an eight-year master agreement.

333 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 57.

334 Alberta Health (1991, p. 3).

335 Alberta Health (1991, p. 3); <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428229> p. 29.

336 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 68.

337 Alberta Health (1991, p. 3); <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428259> p. 29.

338 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 68.

339 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>; Reichwein (2007, p. 19).

340 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 100.

# APPENDIX B

## Service Provision Timeline

- 1874** The North West Mounted Police (NWMP) builds and staffs Alberta's first hospital at Fort Macleod.<sup>341</sup>
- 1881** Grey Nuns builds the first non-NWMP hospital in St. Albert.<sup>342</sup>
- 1889** Prepaid medical care is introduced in Alberta. A year's worth of hospital accommodation and services is offered for five dollars.
- 1905** The *Medical Profession Act* is passed in 1905.
- 1906** The College of Physicians and Surgeons of Alberta (CPSA) and Alberta Medical Association (AMA) are established.
- 1913** The University of Alberta establishes the first Faculty of Medicine in Alberta.
- 1916** The *Alberta Registered Nurses' Act* is passed. The College and Association of Registered Nurses of Alberta (CARNA) is formed.<sup>343</sup>
- 1920** A new hospital dedicated to the treatment of tuberculosis is constructed.
- 1922** Free insulin is mailed to people with diabetes.<sup>344</sup>
- 1924** Alberta's travelling clinics provide doctor examinations, small pox vaccinations, dental inspections and treatment for children.<sup>345</sup>
- 1928** Alberta becomes the first province to provide special facilities to treat polio and care for polio victims.<sup>346</sup>
- 1929** Mental health clinics are introduced in Calgary and Edmonton.<sup>347</sup>
- 1938** Alberta becomes the first province to offer aftercare to polio victims.
- 1944** The *Maternity Hospitalization Act* is passed in 1944.<sup>348</sup> The act provides free maternity care and a grant for home care.
- 1945** Starting in 1945, financial assistance is provided to low income expectant mothers and free hospital care/services are provided for childbirth.

<sup>341</sup> <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 12.

<sup>342</sup> <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 679.

<sup>343</sup> [http://www.nurses.ab.ca/content/dam/carna/pdfs/Fonds/district\\_fonds\\_part2.pdf](http://www.nurses.ab.ca/content/dam/carna/pdfs/Fonds/district_fonds_part2.pdf) p. 19;

<http://www.nurses.ab.ca/content/carna/home/learn-about-carna/museums--archives/nursing-education/setting-standards-of-excellence.html>

<sup>344</sup> <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 38.

<sup>345</sup> Alberta Health (1991; p.30); Jamieson (1947, p. 79).

<sup>346</sup> Alberta Health (1991; p.31).

<sup>347</sup> Alberta Health (1991; p.31).

<sup>348</sup> Alberta Health (1991; p.31); <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 692.



- 1947** The Provincial–Municipal Hospitalization Plan begins “providing free hospitalization and treatment for persons receiving old age and blind pension or mother’s allowance.”<sup>349</sup>
- 1948** Alberta sets up Medical Services (Alberta) Incorporated,<sup>350</sup> which offers medical, surgical and obstetrical services to subscribers.
- 1950** The Municipal Hospitalization Plan provides residents with hospitalization benefits in their local municipal hospital for \$1 per day.<sup>351</sup>
- 1959** Alberta’s first nursing care facility is established and the Provincial Air Ambulance Emergency Service<sup>352</sup> goes into operation.
- 1961** The Alberta Certified Nursing Aide Association is incorporated under the *Societies Act*. The GOA introduces a grant of \$300 for each nurse who graduates to hospitals with training schools.
- 1963** A basic health insurance policy, the Alberta Medical Plan, comes into effect. Individuals are able to purchase insurance policies from a private carrier.<sup>353</sup>
- 1967** The University of Calgary establishes the Faculty of Medicine.<sup>354</sup>
- 1969** The measles vaccine is made available.<sup>355</sup>
- 1973** GOA funds 100 per cent of health unit costs.<sup>356</sup> Health units extend services to home care and dental and nutritional programs.
- 1977** Registered nurses, registered psychiatric nurses, students and allied healthcare professionals form the United Nurses of Alberta (UNA).
- 1978** Alberta Hospital Services Commission and the Alberta Health Care Insurance Commission combine to form Alberta Hospitals and Medical Care.<sup>357</sup> Health units are given the authority and budget to provide home care programs.<sup>358</sup>
- 1980** Alberta becomes the first province to establish a fully accredited community mental health service.<sup>359</sup>
- 1985** Lions Air Services, later named Shock Trauma Air Rescue Society (STARS), is formed and begins operating from a Calgary base.<sup>360</sup>
- 1986** An agreement is reached with AMA to end extra billing.<sup>361</sup> A number of medically non-necessary services are de-insured.
- 1988** Provincial and territorial governments sign reciprocal billing agreements for physician services provided out-of-province/territory.
- 2000** The Alberta Pharmacists Association (RxA) and the College of Pharmacists (ACP) are separated into two entities.
- 2008** AHS formed by amalgamating nine regional health authorities, Alberta Mental Health Board, Alberta Cancer Board and Alberta Alcohol and Drug Abuse Commission.
- Sixteen Catholic healthcare facilities are combined to form a single board and administration called Covenant Health.
- 2010** “In the fall of 2010, Alberta implemented a universal influenza immunization program and allowed pharmacists to administer influenza immunizations to Albertans age nine or older.”<sup>362</sup>

349 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 50.

350 <http://www.robertlampard.ca/Books/Alberta%20Medical%20History.pdf> p. 692.

351 Alberta Health (1991, p.12); <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 57.

352 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428229> p. 29.

353 Alberta Health (1991, p. 3).

354 AMA (Undated).

355 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 68; Reichwein (2007, p. 17).

356 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 75.

357 Alberta Health (1991, p. 4).

358 Carney (1994, p. 22).

359 Alberta Health (1991, p. 5).

360 <http://www.stars.ca/who-we-are/history>.

361 Alberta Health (1991, p. 6).

362 Government of Alberta. September 6, 2016. Health Trends Alberta: Delivery of Influenza Immunization in Alberta by Pharmacies. Alberta Health, Health Standards, Quality and Performance Division, Analytics and Performance Reporting Branch.

# APPENDIX C

## Funding Timeline

- 1889** Government funding of \$100 is provided for the first time to St. Albert Hospital and \$500 to Medicine Hat General Hospital.<sup>363</sup>
- 1939** General hospitals receive government funding of \$0.45 per day. Total funding is less than \$1 million.
- 1944** Saskatchewan takes first step toward a fully funded health system. The Saskatchewan Co-operative Commonwealth Federations begins funding treatment for mental illness, STDs and cancer.
- 1947** The National Health Grants Program, Professional Training Grant and Hospital Construction Grant are introduced to provide financial aid for health-related initiatives, training of healthcare personnel and construction of new hospitals.<sup>364</sup>
- 1957** The federal *Hospital Insurance and Diagnostic Services Act* is passed reimbursing half of provincial and territorial costs for specified hospital and diagnostic service plans.<sup>365</sup>
- 1958** *Alberta Hospitalizations Benefits Act* is passed creating a cost-sharing agreement with the federal government to fund costs of providing “inpatient hospital services and operating costs of the Alberta Hospitalization Plan.”<sup>366</sup>
- 1959** Capital debt, renovations and hospitalization in chronic care institutions is included in the Alberta Hospitalization Plan.<sup>367</sup>
- 1966** The federal *Medical Care Act* is passed providing cost-sharing for provincial/territorial medical insurance plans, in force July 1, 1968.<sup>368</sup> The Canada Assistance Plan (CAP) is introduced resulting in cost-share for social services for those in need.<sup>369</sup> Medical services, preferred hospital accommodation, drugs and specified appliances are included in Alberta Blue Cross membership.<sup>370</sup>
- 1977** The *Federal-Provincial Fiscal Arrangements and Established Programs Financing Act* of 1997 replaced cost-sharing with block funding.<sup>371</sup>
- 1980** The Alberta Heritage Foundation for Medical Research is formed and is the first provincially funded medical research program in Canada.
- 1984** The *Canada Health Act* is passed. It specifies criteria that provincial and territorial health insurance plans have to meet to receive full federal funding for healthcare.
- 2016** Government-funded Medicare continues to be in place. As of 2016–17, Alberta spends \$2.4 million per hour to maintain and improve Alberta’s health system, totalling \$21.1 billion spending annually.

363 <http://www.health.alberta.ca/documents/Health-of-Albertans-2006.pdf> p. 12.

364 <http://www.robertlampard.ca/Books/Alberta's%20Medical%20History.pdf> p. 655;

365 See also <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

366 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

367 Alberta Health (1991, p. 3).

368 Alberta Health (1991, p. 3 & 9).

369 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

370 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.

371 <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>.



# APPENDIX D

## Health Sector Stakeholders

### 1. Governance

Department of Health  
Alberta Health Services  
Alberta Health Services Board  
Health Quality Council of Alberta  
Minister of Health  
Others

### 2. Service Delivery

Alberta Health Services  
    Calgary Laboratory Services  
    Cross Cancer Institute  
    Mental Health and Addictions  
    Rehabilitation Services  
    Supportive Living  
    Transplant Services  
Canadian Blood Services  
Covenant Health  
*DynaLIFE*

### 3. Union/Advocacy/Advisory

Alberta Medical Association  
Alberta Alliance on Mental Illness and Mental Health  
Alberta Association on Gerontology  
Alberta Association of Midwives  
Alberta Association of Naturopathic Practitioners

Alberta Association of Optometrists  
Alberta Association of Osteopathic Manual Practitioners  
Alberta Bone and Joint Health Institute  
Alberta Continuing Care Association  
Alberta Council of Aging  
Alberta Hospice Palliative Care Association  
Alberta Innovates  
Alberta Nursing Education Administrators  
Association of Alberta Podiatric Surgeons  
Alberta Opticians Association  
Alberta Senior Citizens Housing Association  
Alberta Society of Radiologists  
Alberta Union of Provincial Employees  
Canadian Mental Health Association (Alberta)  
Canadian Union of Public Employees (Alberta)  
Massage Therapist Association of Alberta  
Personal Support Workers  
Pharmacy Technicians  
Professional Association of Residents of Alberta  
Psychologists' Association of Alberta

Premier's Council on the Status of Persons with Disabilities  
United Nurses of Alberta

### 4. Regulatory

Accreditation Canada  
Alberta College and Association of Chiropractors  
Alberta College of Acupuncture and Traditional Chinese Medicine  
Alberta College of Combined Laboratory and X-Ray Technologists  
Alberta College of Family Physicians  
Alberta College of Medical Diagnostic and Therapeutic Technologists  
College of Medical Laboratory Technologists of Alberta  
Alberta College of Occupational Therapists  
Alberta College of Optometrists  
Alberta College of Paramedics  
Alberta College of Pharmacists  
Alberta College of Social Workers  
Alberta College of Speech-Language Pathologists and Audiologists  
Alberta Dental Association and College  
College of Physicians and Surgeons of Alberta  
College and Association of Registered Nurses of Alberta  
College and Association of Respiratory Therapists of Alberta  
College of Alberta Dental Assistants  
College of Alberta Denturists  
College of Alberta Psychologists  
College of Dental Technologists of Alberta  
College of Dietitians of Alberta  
College of Hearing Aid Practitioners of Alberta  
College of Licensed Practical Nurses of Alberta  
College of Registered Dental Hygienists of Alberta  
College of Registered Psychiatric Nurses of Alberta  
Physiotherapy Alberta – College and Association

### 5. Academic Research/Support

Alberta Expert Review Panel for Blood Borne Viral Infections in Health Care Workers  
Alberta Health Facilities Review Committee  
Electronic Health Record Data Stewardship Committee  
Expert Committee on Drug Evaluation and Therapeutics  
Health Disciplines Board  
Health Information Standards

Committee for Alberta  
Health Professions  
Regulatory Advisory Board  
Hospital Privileges Appeal Board  
Institute of Health Economics  
M.S. Drug Review Panel  
(Alberta Multiple Sclerosis (MS)  
Drug Review Panel)  
M.S.I. Foundation Board  
of Trustees  
Mental Health Patient  
Advocate Office  
Mental Health Review P  
anels: Calgary and South,  
Central Alberta, and  
Edmonton and North  
Out-of-Country Health  
Services Appeal Panel  
Policy Advisory Committee  
on Blood Services  
Public Health Appeal Board  
University of Alberta  
University of Calgary  
University of Lethbridge

## 6. Health Information/ Informatics

Canada Health Infoway  
Canadian Institute for Health  
Information  
Patient Care Systems  
International  
SAS Canada

## 7. Insurance/Other (Special Interest Groups)

Alberta Blue Cross  
Alberta Motor Association  
Workers Compensation  
Board  
AIDS Calgary Awareness  
Association  
Alberta Diabetes Foundation  
Easter Seals Alberta  
Alzheimer Society of Alberta/  
NWT  
Alzheimer Society of Calgary  
ALS Society of Alberta/  
NWT  
Arthritis Society, The –  
Alberta/NWT Division  
Autism Calgary Association  
Calgary Neuropathy  
Association  
Calgary Cerebral Palsy  
Association  
Calgary Fetal Alcohol  
Network  
Calgary Ostomy Society  
Canada Trigeminal  
Neuralgia Association  
Canadian Cancer Society –  
Alberta/NWT Division  
Canadian Celiac Association  
Canadian Council of the Blind,  
Alberta Division  
Canadian Down  
Syndrome Society

Canadian Liver Foundation  
Spinal Cord Injury Alberta  
(formerly Canadian Paraplegic  
Association Alberta)  
Cerebral Palsy Association  
in Alberta  
Deaf and Hear Alberta  
Epilepsy Association of Calgary  
Heart and Stroke Foundation of  
Alberta, NWT and Nunavut  
Heart Beats Children's  
Society of Calgary  
Kids Cancer Care  
Foundation of Alberta  
Leukemia and Lymphoma  
Society of Canada – Western  
Canada Alberta Chapter  
Lung Association –  
Alberta and NWT  
Lupus Society of Alberta  
Multiple Sclerosis Society of  
Canada – Alberta Division  
Muscular Dystrophy Canada –  
Western Canada Region  
Myalgic Encephalomyelitis/  
Fibromyalgia Society of Alberta  
Osteoporosis Canada –  
Alberta Chapter  
Parkinson's Society of Alberta  
Parkinson's Society of  
Southern Alberta  
Prader–Willi Syndrome  
Association of Alberta  
Prostate Cancer Canada  
Network Calgary  
Rett Syndrome Society  
of Alberta

Schizophrenia Society of Alberta  
SIDS Calgary Society  
Society for Treatment of  
Autism (Calgary Region)  
Southern Alberta Post Polio  
Support Society  
Stroke Recovery  
Association of Calgary  
Sunlife  
Ups and Downs – Calgary  
Down Syndrome Association

## 8. Caregivers

Chiropractors  
Healthcare Aides  
Midwives  
Nurses  
Nutritionists  
Occupational Therapists  
Optometrists  
Physicians  
Pharmacists  
Physical Therapists  
Speech Therapists  
Other Caregivers

# APPENDIX E

## Ministry of Health Outcomes and Key Strategies

### Outcome One: Improved Health Outcomes for All Albertans

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#### Key Strategies:

- 1.1 Introduce an expanded model for home and community care which will increase access and the variety of services available to Albertans.
- 1.2 Create 2,000 public long-term care and dementia spaces over four years to assist seniors and persons with disabilities to remain in their communities when they can no longer live at home and thereby take pressure off acute care systems.
- 1.3 Implement an addiction and mental health strategy.
- 1.4 Enhance the delivery of primary healthcare services to enable Albertans to be as healthy as they can be through increased integration of services, improved capacity, timely access and improved quality and safety.
- 1.5 Improve the quality of care provided to continuing care clients and improve care and supports needed by Albertans living with and affected by dementia.
- 1.6 Improve the effectiveness and efficiency of emergency and ambulance services.
- 1.7 Enhance and expand electronic health records to support clinical decision making and provide additional resources and tools through the personal health portal to assist Albertans in taking an active role in managing their health.
- 1.8 Address rates of chronic disease in the province through disease prevention and health promotion initiatives.

## Outcome Two: The Well-being of Albertans is Supported Through Population Health Initiatives

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### Key Strategies:

- 2.1 Strengthen policies and practices to protect environmental public health, based on environmental public health science and international best practices.
- 2.2 Modernize the food safety inspection system in partnership with Alberta Health Services and other government ministries.
- 2.3 Develop a whole-of-government approach to wellness and collaborate with key partners to build community capacity in support of wellness.
- 2.4 Improve and protect health of Albertans through variety of strategies, including increased immunization rates.
- 2.5 Reduce the health gap between Indigenous peoples and other Albertans by developing population health initiatives with federal and Indigenous communities.
- 2.6 Collaborate with Agriculture and Forestry, Alberta Health Services and other stakeholders to develop and implement a strategy to address antimicrobial resistance through stewardship, surveillance, research, innovation and infection prevention and control.
- 2.7 Implement a Wait Time Measurement and Waitlist Management Policy to address long wait times in the healthcare system.
- 2.8 Develop and implement programs related to maternal, infant, child and youth health.

## Outcome Three: Albertans Receive Care from Highly Skilled Healthcare Providers and Teams, Working to Their Full Scope of Practice

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### Key Strategies:

- 3.1 Improve access to healthcare providers across the province and develop sustainable strategies that ensure the appropriate education, scope of practice, supply and distribution of healthcare providers.
- 3.2 Enhance accountability and promote practice excellence among regulated healthcare providers.
- 3.3 Develop sustainable physician compensation models which enable the provision of high quality care and support collaborative practice within a team-based environment.
- 3.4 Increase timely access for all Albertans to primary healthcare services where they see the right provider at the right time.

## Outcome Four: A High Quality, Stable, Accountable and Sustainable Health System

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### Key Strategies:

- 4.1 Support the creation of a stable budget for healthcare services to help Albertans receive the right care, at the right time, from the right provider, and in the right place.
- 4.2 Ensure regional healthcare needs are heard and addressed.
- 4.3 Repair aging health infrastructure and build new healthcare facilities, where appropriate, to ensure that such infrastructure meets current and future healthcare needs.
- 4.4 Enhance accountability through improved governance structures and establish clear mandates and roles for all health agencies, boards and commissions.
- 4.5 Implement a system-wide response to chronic conditions and disease prevention and management by aligning and integrating current work being done on chronic disease across the province.
- 4.6 Increase the capacity for evidence-informed practice and policy through clinical information systems, enhanced data sharing, research, innovation, health technology assessment and knowledge translation.
- 4.7 Enable a more robust health system analytics environment in which to better inform quality improvements, health system management, delivery and research.
- 4.8 Improve performance of emergency departments for enhanced patient flow through the acute care system.

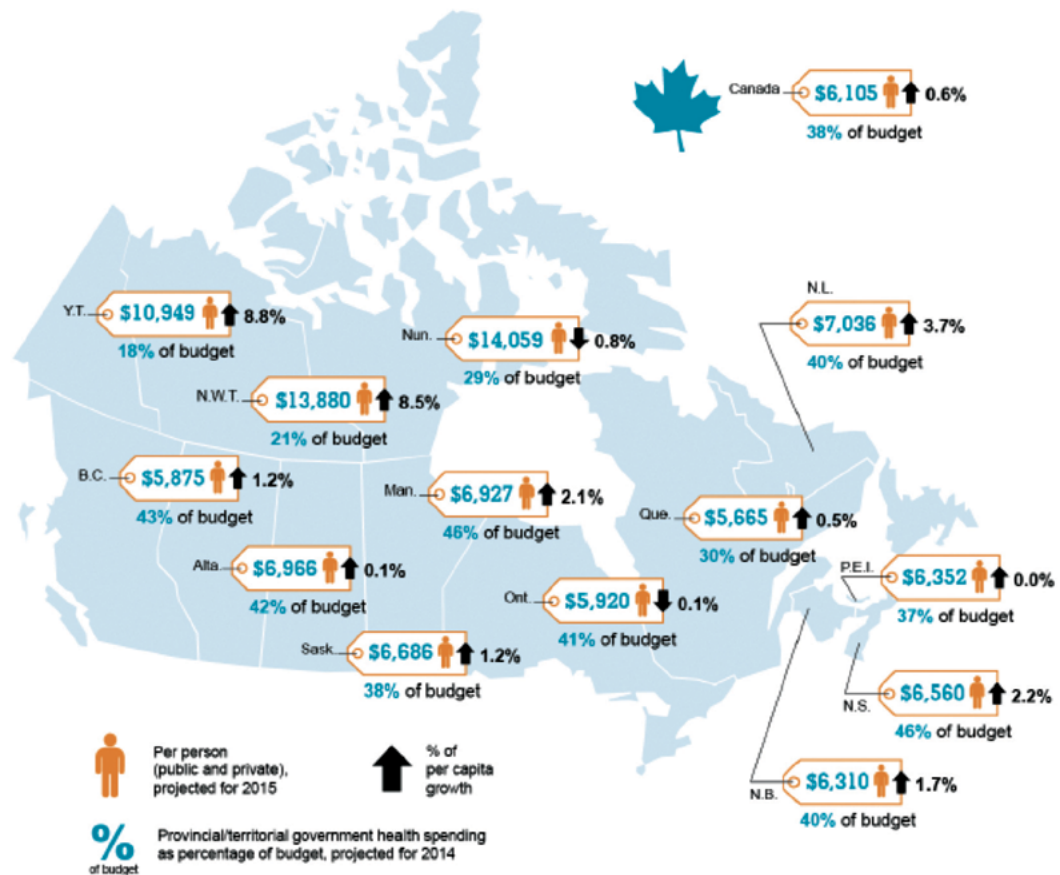
**Source:** <http://www.finance.alberta.ca/publications/budget/budget2016/health.pdf>.





# APPENDIX F

## Health Expenditure – Provinces and Territories



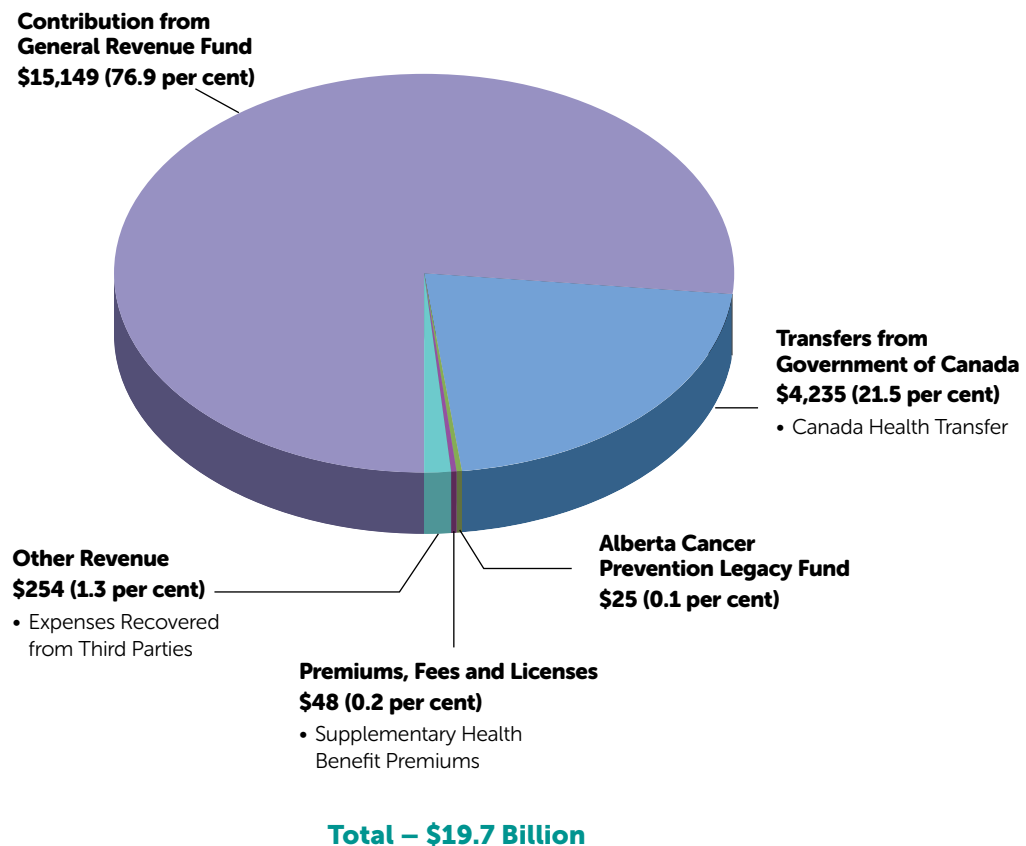
Source: National Health Expenditure Database, Canadian Institute for Health Information.  
[https://www.cihi.ca/sites/default/files/document/nhex\\_trends\\_narrative\\_report\\_2015\\_en.pdf](https://www.cihi.ca/sites/default/files/document/nhex_trends_narrative_report_2015_en.pdf)



# APPENDIX G

## Department of Health 2016/2017 Revenue Budget

**Department of Health 2016/2017 Second Quarter Revenue Forecast  
(\$ Millions)**



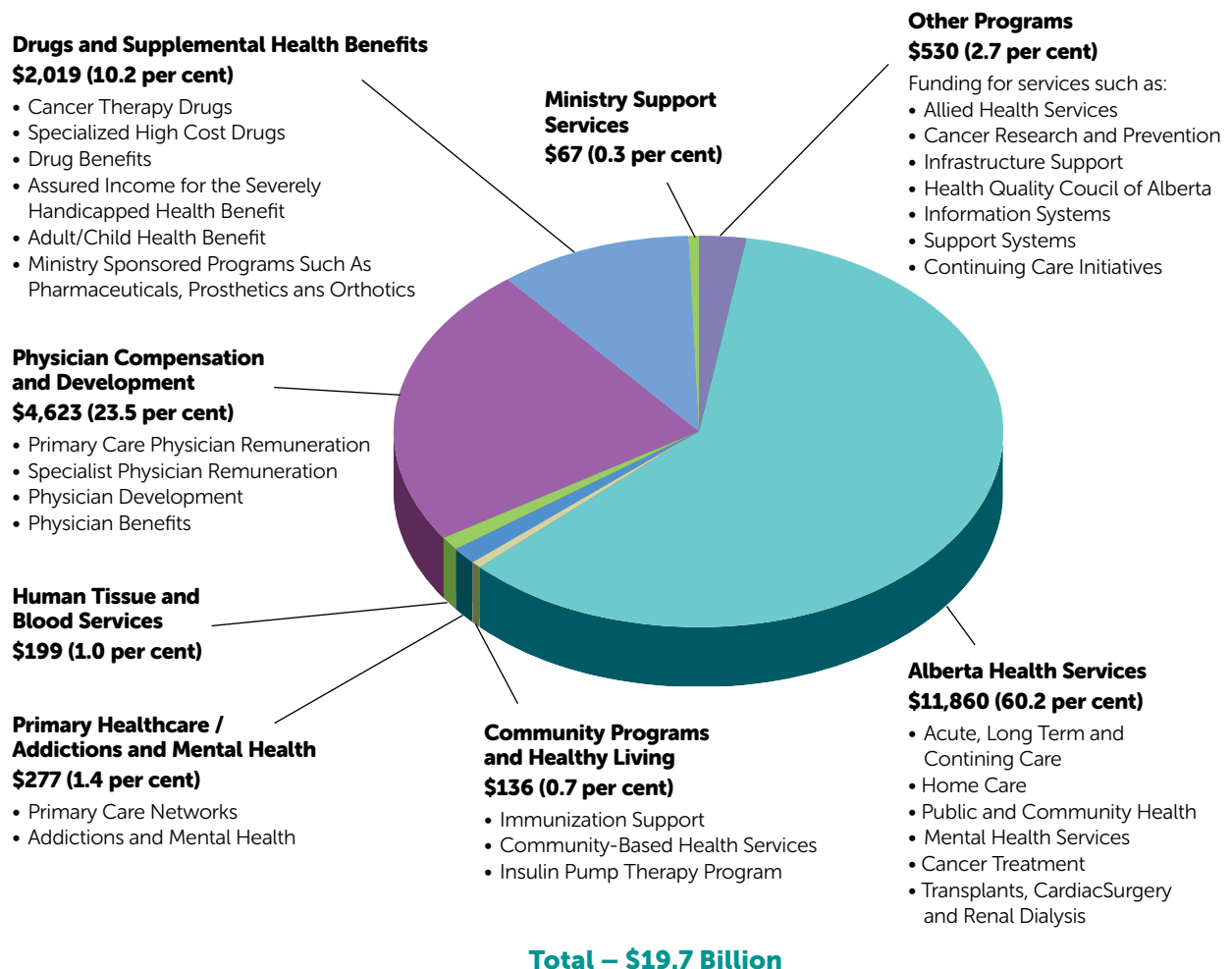
Source: <http://www.health.alberta.ca/documents/Funding-Health-2016-17-Q2-Sources.pdf>.



# APPENDIX H

## Department of Health 2016/2017 Expense Budget

### Department of Health 2016/2017 Second Quarter Expense Forecast (\$ Millions)

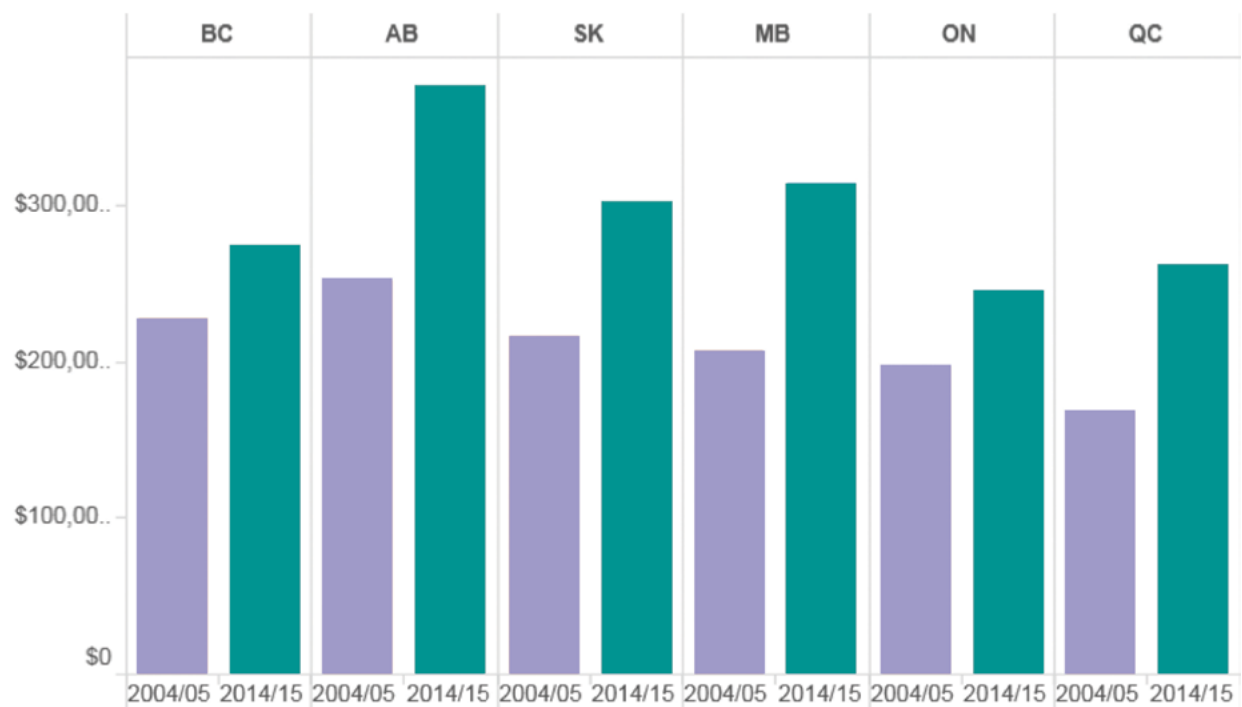


Source: <http://www.health.alberta.ca/documents/Funding-Health-2016-17-Q2-Allocation.pdf>



# APPENDIX I

## Family Physicians Gross Payment – Interprovincial Comparisons



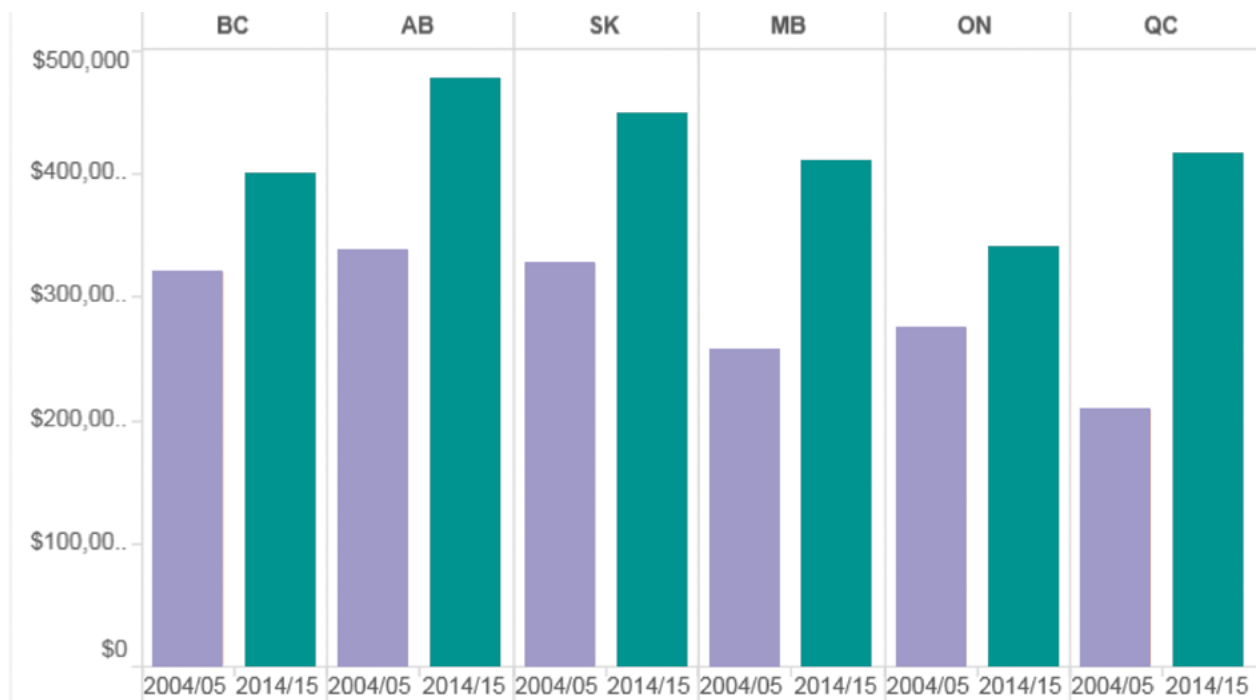
**Note:** Average Gross Fee-for-Service (FFS) Payment Per FTE, 2004/05 & 2014/15  
**Source:** <http://www.health.alberta.ca/health-info/health-economics-dashboard4.html>





# APPENDIX J

## Specialist Physicians Gross Payment – Interprovincial Comparisons



**Note:** Average Gross Fee-for-Service (FFS) Payment Per FTE, 2004/05 & 2014/15

**Source:** <http://www.health.alberta.ca/health-info/health-economics-dashboard4.html>



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- 24 <http://www.ourfutureourpast.ca/medhist/page.aspx?id=3428259> p. 24. See also Jamieson (1947, p. 82); Carney (1994, p. 23).





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