



Niagara Region  
Health Care and Life Sciences  
Sector Profile

March 2023



# Table of Contents

Table of Contents	2
Disclaimer	3
Introduction	5
Health Care and Life Sciences Sector Overview	9
Sector Trends	11
SWOT Analysis	25
Conclusion	27

# Disclaimer

This report has been provided for the purpose of informing and assisting the Regional Municipality of Niagara (“Niagara Region”) to produce sector profiles for five emerging sectors, with this profile featuring the investment and growth potential of the health care and life sciences sector.

Deloitte does not assume any responsibility or liability for losses incurred by any party as a result of the circulation, publication, reproduction or use of this report contrary to its intended purpose.

This report has been made only for the purpose stated and shall not be used for any other purpose. Neither this report (including references to it) nor any portions thereof (including without limitation the identity of Deloitte or any individuals signing or associated with this report, or the professional associations or organizations with which they are affiliated) shall be disseminated to third parties by any means or included in any document without the prior written consent and approval of Deloitte.

Our report and work product cannot be included, or referred to, in any public or investment document without the prior consent of Deloitte LLP.

The analyses are provided as of March 2023, and we disclaim any undertaking or obligation to advise any person of any change in any fact or matter affecting this analysis, which may come or be brought to our attention after the date hereof. Without limiting the foregoing, in the event that there is any material change in any fact or matter affecting the analyses after the date hereof, we reserve the right to change, modify or withdraw the analysis.

Observations are made on the basis of economic, industrial, competitive and general business conditions prevailing as at the date hereof. In the analyses, we may have made assumptions with respect to the industry performance, general business, and economic conditions and other matters, many of which are beyond our control, including government and industry regulation.

No opinion, counsel, or interpretation is intended in matters that require legal or other appropriate professional advice. It is assumed that such opinion, counsel, or interpretations have been, or will be, obtained from the appropriate professional sources. To the extent that there are legal issues relating to compliance with applicable laws, regulations, and policies, we assume no responsibility, therefore.

We believe that our analyses must be considered as a whole and that selecting portions of the analyses or the factors considered by it, without considering all factors and analyses together, could create a misleading view of the issues related to the report.

Amendment of any of the assumptions identified throughout this report could have a material impact on our analysis contained herein. Should any of the major assumptions not be accurate or should any of the information provided to us not be factual or correct, our analyses, as expressed in this report, could be significantly different



# Introduction

Health Care and Life Sciences includes not only core health industries, but also other industries that support and are part of the health care industry supply chain including drugs and pharmaceuticals; medical devices and equipment; research, testing and medical laboratories; and health care services.

## **The Emerging Sector Profiles**

Niagara Region Economic Development retained Deloitte LLP to produce sector profiles for five emerging sectors, including the marine sector, the health sector, film sector, active economy/sport tourism, and electric vehicle battery manufacturing. In the design of the project, the aerospace sector was added to the analysis. These sectors were initially identified in 'Niagara's 10 Year Economic Development Strategy 2022-2032'.

This profile features the investment and growth potential of the health care and life sciences sectors. This sector profile was developed by defining the industries that make up and broadly support health care and life sciences. These industries were characterized using business and employment data and include support and supply businesses. From this broad overview, international, national, and local trends were considered to identify opportunities relevant to Niagara region's economy. A review of existing literature and a focus group was conducted with local partners to ground the

findings in local perspectives. The data was analyzed to show a picture of the sector's future potential. This profile does not include a benchmarking of the sector, and further research is needed to accurately identify employment directly linked to the health care and life sciences sector.

The following data sources were used in the development of this sector profile: Lightcast (formerly EMSI Economic Modeling) 2022, Vicinity Jobs 2022, FDI Markets, Statistics Canada, and Canadian Business Counts<sup>1</sup> June 2022.

## **Investment Attraction Highlights for the Health Care and Life Sciences Sector**

### **Key Highlights**

**Identified high potential sub-sectors:** A favorable outlook towards medical nutrition is likely to stimulate the growth of dietary supplements. Rising health care costs, coupled with the growing geriatric population across the world, are anticipated to assist the growth of the global functional food industry over the forecast period. It is also notable that Niagara has an existing strength in manufacturing and expertise in engineering and advanced components, which can be capitalized on to supply the medical equipment and device industry. With existing companies in the segment in Niagara, the prosthetics and orthotics market are a potential avenue to explore alongside the region's hospitals and overarching health care and life sciences sector.

**The intersection of sports and health care is also an important space for Niagara region.** Rehabilitation services and sports recovery for athletes is a potential avenue that capitalizes on Niagara's history as a host of sporting events and strengths in its health care sector. The need for rehabilitation and health care services in the sports industry also plays on the cost effectiveness of health care in Canada and the demand for niche health care services that are accessible.

---

<sup>1</sup> The June 2022 Canadian Business Counts were used to determine the total number of registered businesses in the Niagara Region. Statistics Canada's Canadian Business Counts Data provides a record of business establishments by industry and size. This data is collected from the Canada Revenue Agency (CRA). The business data collected for Niagara Region included all local businesses that met at least one of the three following criteria: Have an employee workforce for which they submit payroll remittances to CRA, or have a minimum of \$30,000 in annual sales revenue, or are incorporated under a federal or provincial act and have filed a federal corporate income tax form within the past three years.

**Key foreign direct investment (FDI) markets for attraction:** Examining health care and life sciences hubs in the United States, show that Boston, San Francisco, San Diego, Washington-DC-Baltimore, Raleigh-Durham, New Jersey, and New York are key markets for FDI attraction. Emerging hubs are Houston, Austin, and Detroit. Top source countries of investment outside the United States include the United Kingdom, Switzerland, Netherlands, Germany, France, Japan, and China.

**Proximity to markets and customers and infrastructure:** Proximity is a key determinant for foreign direct investment in health care and life sciences projects related to device manufacturing or production and testing. Niagara Region has access to one third of North America's population within a 24-hour drive., as well as access to ports in Lake Erie, Lake Ontario and the Welland Canal. Please note Brock Bioscience Complex, Norgen and Biolyse Pharma as Champions of industry in research and development and product development, partnerships with the McMaster DeGroot School of Medicine.

### **The Health Care and Life Sciences Sector in Niagara Region**

- **Sector-related employment:** Overall, a total of 30,206 people were employed in the health care and life sciences sector in the Niagara region in 2022. Approximately 6,603 of these jobs correspond to health care and life sciences sectors. The largest core subsectors of employment are architectural, engineering, and related services (6% of total sector employment), Other machinery, equipment and supplies merchant wholesalers (3%), and medical and diagnostics laboratories (1%).
- **The health care and life sciences sector have a moderate concentration of businesses** in Niagara region, with an LQ of 0.96(June 2022).
- **Subsectors such as nursing homes display a high concentration of businesses** as a direct result of the large share of older residents in the region.
- **Demand for workers in the sector is expected to continue growing** as employment is projected to grow significantly between 2022 to 2028 (+2,895 jobs or 10% increase). This progress will be driven mostly by employment growth in core health care practitioner industries such as hospitals, nursing, and residential care facilities.
- **New investments in the sector are increasing in the region**, according to the Niagara's 10 Year Economic Development Strategy, the region has seen important investments in the broad health care sector during the last decade. Among these investments are the New St. Catharines Hospital; the expansion of

McMaster University's School of Medicine to include a regional campus inside Brock University; the Roy and Lois Cairns Health and Biosciences Research and the project for the new South Niagara hospital (\$3.6 billion construction contract awarded on February 21, 2023). Other important investment includes the West Lincoln Memorial Hospital redevelopment project.

- **Other important investments in life sciences-related industries include** investments by the Ontario Government to support Norgen Biotek to scale up production of COVID-19 saliva-based test kit. These investments (more than \$13 million) took place in Norgen's Thorold facilities, equipment and production materials. Ontario made this possible through the Ontario Together Fund in 2021–22. The fund was created to support local innovators and businesses to further enhance Ontario's domestic supply chain capacity, promote Ontario's MedTech ecosystem and build up our manufacturing sector to ensure the province is well-prepared for future challenges.<sup>2</sup>

---

<sup>2</sup> Government of Ontario. Ontario Invests in COVID-19 Test Kits Made in Thorold. News Release.





# Health Care and Life Sciences Sector Overview

## Defining the Health Care and Life Sciences Sector

The 10-Year Economic Development Strategy 2022-2032 identifies health care as an emerging sector in Niagara region based on new investments in health care facilities as well as potential opportunities in life sciences. In discussion with Niagara Region, and to reflect the results of the research, the title of this sector was extended to include life sciences. Life sciences includes industries that support and are part of the health care industry supply chain. The health care and life sciences definition used in this report includes four main industry areas:

- **Drugs and Pharmaceuticals** includes pharmaceutical and medicine manufacturing, as well as wholesalers of pharmaceutical products.
- **Medical Devices and Equipment** includes manufacturers of medical instruments and equipment, electronic components, and wholesalers of medical devices and supplies.
- **Research, Testing, and Medical Laboratories** includes diagnosis and testing laboratories, and research and development.

- **Health Care Services** includes industries traditionally considered core health care, these are offices of physicians, dentist, hospitals, nursing, and residential care facilities, among others.

For this analysis, the codes shown below were used to collect employment and business counts and other numbers for the sector. In addition, and with the support of the Niagara Region's Project Team, the health care and life sciences subsectors were further classified into core and non-core subsectors. Figure 1 below identifies the core industry subsectors; these are highlighted in blue. These NAICS focus on the production, research and development of health-related products.

Figure 1 – Health Care and Life Sciences NAICS

Industry	NAICS	Description
<b>Manufacturing</b>	<b>3254</b>	<b>Pharmaceutical and medicine manufacturing</b>
	<b>3344</b>	<b>Semiconductor and other electronic component manufacturing</b>
	<b>3345</b>	<b>Navigational, measuring, medical and control instruments manufacturing</b>
	<b>3391</b>	<b>Medical equipment and supplies manufacturing</b>
<b>Wholesale trade</b>	<b>4145</b>	<b>Pharmaceuticals, toiletries, cosmetics, and sundries merchant wholesalers</b>
	<b>4179</b>	<b>Other machinery, equipment and supplies merchant wholesalers</b>
<b>Retail trade</b>	<b>4461</b>	<b>Health and personal care stores</b>
<b>Professional, Scientific, and Technical Services</b>	<b>5413</b>	<b>Architectural, engineering, and related services</b>
	<b>5417</b>	<b>Scientific research and development services</b>
<b>Health Care and Social Assistance</b>	<b>6215</b>	<b>Medical and diagnostic laboratories</b>
	6211	Offices of physicians
	6212	Offices of dentists
	6213	Offices of other health practitioners
	6214	Out-patient care centres
	6216	Home health care services
	6219	Other ambulatory health care services
	6220	Hospitals (6221 to 6223)
	6230	Nursing and residential care facilities (6231 to 6239)

# Sector Trends

The World Trade Organization (WHO) estimates a global shortage of 18 million health workers by 2030,<sup>3</sup> in Canada, this shortage has been exacerbated by COVID-19, which contributed to the growth in job vacancies in the health care and social assistance sector (recent results on job vacancies release of the fourth quarter of 2021 show that there were 126,000 vacancies in the health care and social assistance sector, almost double the number of vacancies seen two years earlier)<sup>4</sup>. In addition, Statistics Canada is reporting a projected 500,000 retirees in the next decade that will add strain to the workforce.<sup>5</sup> This gap will largely need to be filled through immigration, as currently, one-quarter of health care sector workers were immigrants to Canada.

The Government of Canada has been willing to support new health sector initiatives. For example, in 2020, Western Diversification invested \$5.5 million to support the development of new and improved medical products and technologies that protect the health of Canadians and advance Canadian-made health solutions.

Canada spends the fourth highest per capita on health care among the Organization for Economic Co-operation and Development (OECD) countries.<sup>6</sup> In 2020, Canada spent \$305 billion on health care, which equates to \$8,021 per person.<sup>7</sup> Expenditure on health care in Canada is expected to reach \$331 billion in total or \$8,563 per person in 2022.<sup>8</sup> Hospitals (24.3%), physicians (13.6%), and drugs (13.6%) make up the largest share of health care spending in Canada.<sup>9</sup>

Canada's per capita hospital spending (\$1,785) is less than the OECD average (\$1,932). The breakdown for Canada's per capita spending in 2019-2020 is \$1,615 for

---

<sup>3</sup> Clinton Foundation, [clintonhealthaccess.org/there-is-a-global-shortage-of-nurses-covid-19-is-making-it-worse/](https://clintonhealthaccess.org/there-is-a-global-shortage-of-nurses-covid-19-is-making-it-worse/)

<sup>4</sup> Statistics Canada, 2022. Experiences of health care workers during the COVID-19 pandemic, September to November 2021

<sup>5</sup> Government of Canada, [canada.ca/en/immigration-refugees-citizenship/campaigns/immigration-matters/growing-canada-future/infographic-health.html](https://canada.ca/en/immigration-refugees-citizenship/campaigns/immigration-matters/growing-canada-future/infographic-health.html)

<sup>6</sup> Canadian Institute for Health Information, National health expenditure trends, 2022 – Snapshot, November 2022.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

government and \$170 for household out-of-pocket.<sup>10</sup> Canada's hospitals spent more than \$55 billion in 2019-2020 (excluding Quebec and Nunavut). Compensation was the largest area of hospital spending (64%), followed by supplies (11%), sundry (6%), equipment (5%), and drugs (4.9%).<sup>11</sup> Pre-COVID-19 spending on supplies, equipment, and drugs combined to create a national supply chain market of \$14.8 billion. Where are the trends that support the core sectors outlined in the previous page Ex. How does this translate into investment from Pharmas and research and development and or laboratory firms?

### **The Niagara Region Advantage**

The region has access to large consumer and employment markets that include both the Greater Toronto Area and the United States. The region has access to these markets by road, rail, in addition to access to the global market via St. Lawrence Seaway. The Seaway is an important corridor for North American cargo shipments and has recently seen a boom in general cargo shipments at the end of 2021, due to the increasing demand for manufacturing and building materials. These shipping routes allow for manufacturers in the health care and life sciences sector to export their goods globally efficiently within the regional transport and logistics system.

Facilities for health care and life sciences businesses can be complex as they may require laboratory, office, and manufacturing space in the same building. This complexity may require greenfield investment or significant renovations to existing leasable space. As of 2019, the Niagara region recorded a total 1,849 ha vacant employment land in the Region, in five of the lower tier municipalities. The complete inventory includes approximately 2,300 designated employment parcel totaling 6,550 ha of land.<sup>12</sup> Greenfield and brownfield land suitable for health care and life sciences investment will need to be identified ahead of investment attraction efforts.

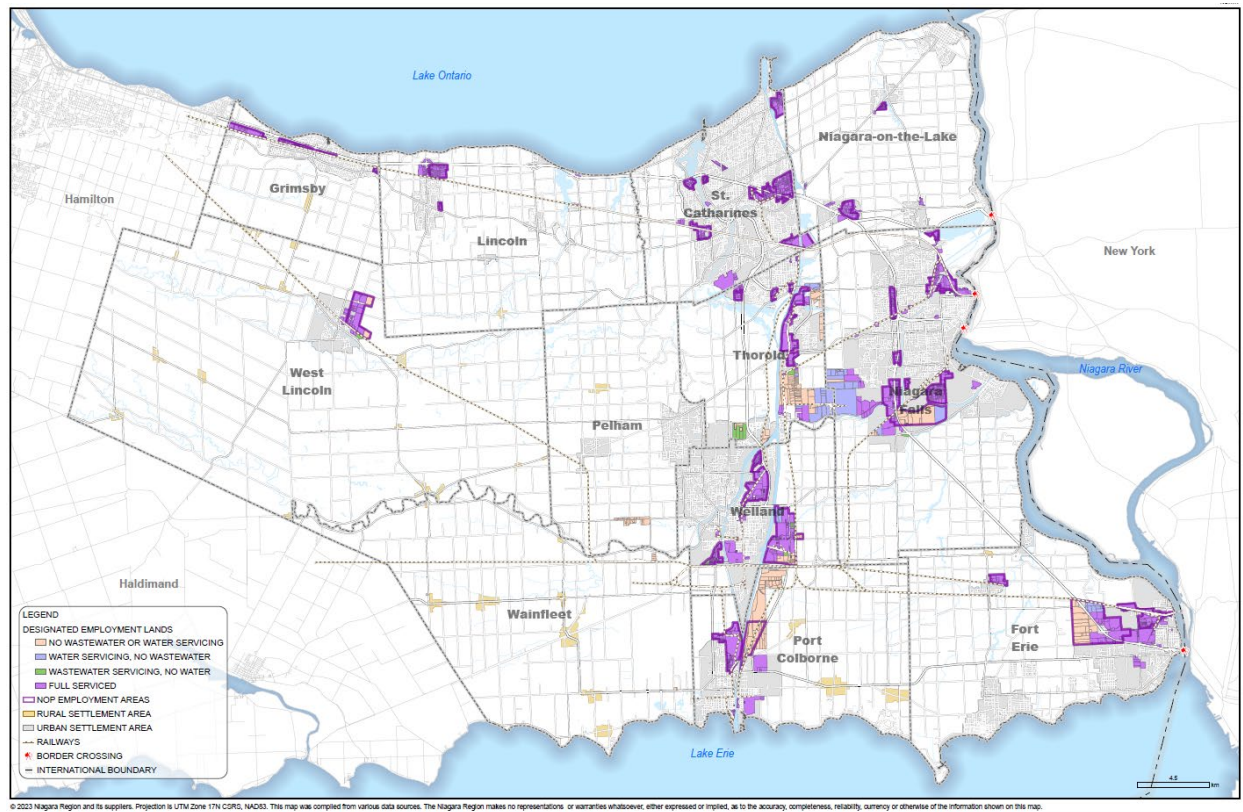
---

<sup>10</sup> <https://www.cihi.ca/en/hospital-spending>

<sup>11</sup> Canadian Institute for Health Spending, [cihi.ca/en/what-are-hospitals-spending-on](https://www.cihi.ca/en/what-are-hospitals-spending-on)

<sup>12</sup> Niagara Region's Official Plan – Niagara's Employment Area Strategy, 2020

Figure 2 – Designated Employment Lands Within the Niagara Region



Source: Niagara Region



## Employment and Business Structure in Niagara Region

Overall, 30,206 people were employed in the health care and life sciences sector in the Niagara Region in 2022.<sup>13</sup> 6,603 of these jobs correspond to health care support and life sciences sectors, and 23,603 correspond to core health care practitioner industries.

Figure 3 – Employment, Health Care and Life Sciences Sector, Niagara Region, 2022

Description	Employment 2022	%
<b>Total Health Care and Life Sciences</b>	<b>30,206</b>	<b>100%</b>
Nursing and residential care facilities (6231 to 6239)	6,787	22%
Hospitals (6221 to 6223)	6,390	21%
Offices of physicians	2,558	8%
<b>Health and personal care stores</b>	<b>2,364</b>	<b>8%</b>
Offices of other health practitioners	2,161	7%
Home health care services	1,938	6%
<b>Architectural, engineering, and related services</b>	<b>1,760</b>	<b>6%</b>
Out-patient care centres	1,726	6%
Offices of dentists	1,724	6%
Other machinery, equipment and supplies merchant wholesalers	984	3%
<b>Medical and diagnostic laboratories</b>	<b>378</b>	<b>1%</b>
Other ambulatory health care services	321	1%
<b>Pharmaceuticals, toiletries, cosmetics, and sundries merchant wholesalers</b>	<b>298</b>	<b>1%</b>
<b>Scientific research and development services</b>	<b>296</b>	<b>1%</b>
<b>Medical equipment and supplies manufacturing</b>	<b>214</b>	<b>1%</b>
<b>Pharmaceutical and medicine manufacturing</b>	<b>160</b>	<b>1%</b>
<b>Navigational, measuring, medical and control instruments manufacturing</b>	<b>108</b>	<b>0.4%</b>
<b>Semiconductor and other electronic component manufacturing</b>	<b>39</b>	<b>0.1%</b>

Source: Lightcast, 2022 - Datarun 2022.1

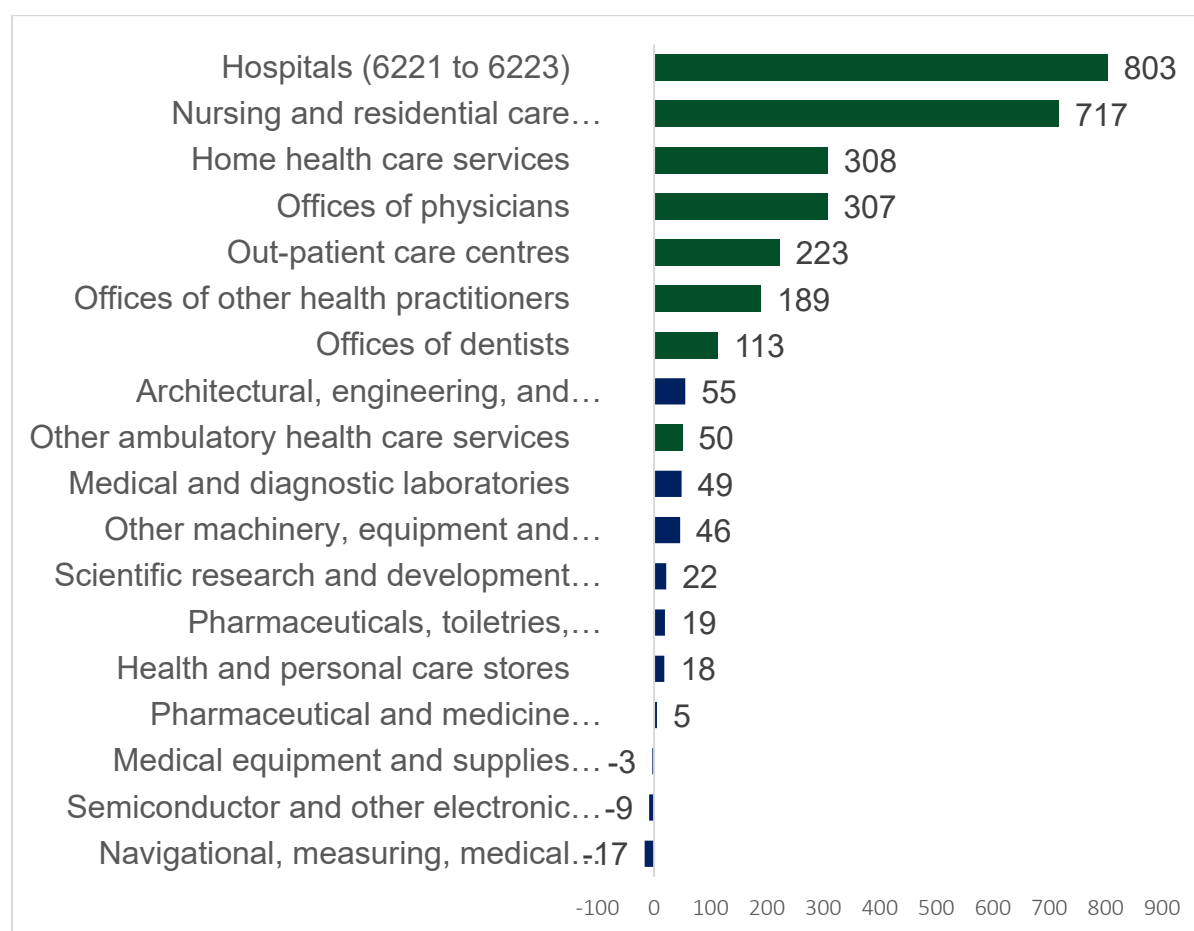
The health care and life sciences sectors are projected to grow significantly between 2022 and 2028. The sector will add 2,895 jobs; a 10% increase compared to 2022. This progress will be driven mostly by employment growth in core health care practitioner industries such as hospitals (+803 jobs or 13% increase), nursing and residential care facilities (+717/+11%), and office of physicians (+308/+16%). It is important to note that

<sup>13</sup> Lightcast, 2022 - Datarun 2022.1

the core health care practitioner industries are primarily driven by population growth, while this study seeks opportunities beyond population-based service delivery. Sectors that are not population-based include architectural, engineering, and related services (+55 jobs or 3% growth), and medical and diagnostic laboratories (+49 jobs or 13% growth).

In terms of health care support and life sciences sectors, some will experience job declines or small employment growth, particularly those related to manufacturing (e.g., semiconductors and electronics, medical equipment, pharmaceuticals).

Figure 4 – Employment Change, Health Care and Life Sciences, Niagara Region, 2022-2028



Source: Lightcast, 2022 - Datarun 2022.1 | Core subsectors highlighted in blue

3,260 businesses in the health care and life sciences sector were recorded in the Niagara Region by June 2022, most of these were businesses with employees (1,692 businesses fall under this category). Most of the businesses in the Region are core health care practitioner industries (69% of all businesses). The largest business sector

are offices of other health practitioners (841 businesses or 26% of all businesses in the sector) followed by offices of physicians (774/24%).

Figure 5 – Business Counts, Active Economy Sector, Niagara Region, June 2022

Description	With Employees	Without Employees	Total
<b>Total Health Care and Life Sciences</b>	<b>1,692</b>	<b>1,568</b>	<b>3,260</b>
Offices of other health practitioners	267	574	841
Offices of physicians	491	283	774
<b>Health and personal care stores</b>	<b>261</b>	<b>146</b>	<b>407</b>
<b>Architectural, engineering, and related services</b>	<b>144</b>	<b>237</b>	<b>381</b>
Offices of dentists	170	86	256
Nursing and residential care facilities (6231 to 6239)	168	23	191
Out-patient care centres	33	66	99
<b>Other machinery, equipment and supplies merchant wholesalers</b>	<b>42</b>	<b>31</b>	<b>73</b>
Home health care services	21	40	61
<b>Medical and diagnostic laboratories</b>	<b>30</b>	<b>21</b>	<b>51</b>
<b>Scientific research and development services</b>	<b>17</b>	<b>14</b>	<b>31</b>
<b>Medical equipment and supplies manufacturing</b>	<b>16</b>	<b>11</b>	<b>27</b>
Other ambulatory health care services	6	17	23
<b>Pharmaceuticals, toiletries, cosmetics, and sundries merchant wholesalers</b>	<b>7</b>	<b>11</b>	<b>18</b>
Hospitals (6221 to 6223)	10	1	11
<b>Navigational, measuring, medical and control instruments manufacturing</b>	<b>6</b>	<b>3</b>	<b>9</b>
<b>Pharmaceutical and medicine manufacturing</b>	<b>2</b>	<b>2</b>	<b>4</b>
<b>Semiconductor and other electronic component manufacturing</b>	<b>1</b>	<b>2</b>	<b>3</b>

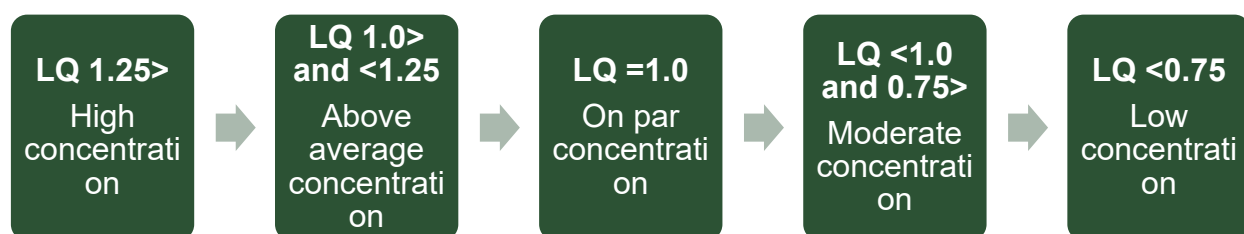
Source: Canadian Business Counts, June 2022 | Provided by Niagara Region

## Location Quotient

As part of the economic baseline analysis, a Location Quotient (LQ) Analysis was completed to determine the concentration of employment in the health care and life sciences sector, in Niagara region and relative to the province. The location quotient



reveals what makes a region unique, in this case in comparison with other communities in Ontario. The following chart shows common LQ Classifications to interpret the figures in Figure 6.



Overall, the health care and life sciences sector has a moderate concentration of businesses in the Niagara region (relative to Ontario). The only sector showing a high concentration of businesses in the Region are nursing and residential care facilities.

Figure 6 – Business Concentration, Health Care and Life Sciences, Niagara Region, June 2022

Description	Location Quotients (LQ) Total
<b>Total Health Care and Life Sciences</b>	<b>0.96</b>
Nursing and residential care facilities (6231 to 6239)	1.43
Out-patient care centres	1.22
Home health care services	1.14
Health and personal care stores	1.13
Offices of other health practitioners	1.08
Hospitals (6221 to 6223)	1.02
Medical equipment and supplies manufacturing	0.98
Medical and diagnostic laboratories	0.94
Other ambulatory health care services	0.94
Architectural, engineering, and related services	0.87
Offices of physicians	0.87
Navigational, measuring, medical and control instruments manufacturing	0.82
Other machinery, equipment and supplies merchant wholesalers	0.8
Offices of dentists	0.79
Pharmaceutical and medicine manufacturing	0.54
Pharmaceuticals, toiletries, cosmetics, and sundries merchant wholesalers	0.53
Semiconductor and other electronic component manufacturing	0.49

Description	Location Quotients (LQ) Total
Scientific research and development services	0.47

Source: Canadian Business Counts, June 2022 | Provided by Niagara Region

## Job Demand

Between January 1, 2020, to November 30, 2022, a total of 1,811 job postings in industries related to the health care and life sciences sector were recorded in the Niagara region. Most of these job postings were in home health care services (970 job postings), health and personal care stores (429 job postings), and offices of other health practitioners (134 job postings). Overall, most of the job postings were advertised in 2022, showing a slight increase from 2021, and evidencing a significant recovery from 2020.

Figure 7 – Job Demand (Job Postings) by Industry Sector (Health Care and Life Sciences), Niagara Region, January 1, 2020, to November 30, 2022

NAICS	2020	2021	2022	Total Postings	%
<b>Total*</b>	<b>334</b>	<b>721</b>	<b>756</b>	<b>1,811</b>	<b>100%</b>
Home health care services	165	410	395	<b>970</b>	<b>53.6%</b>
Health and personal care stores	84	181	164	<b>429</b>	<b>23.7%</b>
Offices of other health practitioners	13	33	88	<b>134</b>	<b>7.4%</b>
Architectural, engineering and related services	19	23	33	<b>75</b>	<b>4.1%</b>
Medical and diagnostic laboratories	12	27	33	<b>72</b>	<b>4.0%</b>
Other machinery, equipment and supplies wholesaler-distributors	16	22	22	<b>60</b>	<b>3.3%</b>
Scientific research and development services	7	1	12	<b>20</b>	<b>1.1%</b>
Pharmaceutical and medicine manufacturing	8	6	0	<b>14</b>	<b>0.8%</b>
Other ambulatory health care services	4	8	0	<b>12</b>	<b>0.7%</b>

Medical equipment and supplies manufacturing	0	6	2	8	0.4%
Navigational, measuring, medical and control instruments manufacturing	2	1	4	7	0.4%
Semiconductor and other electronic component manufacturing	4	2	0	6	0.3%
Out-patient care centres	0	1	3	4	0.2%

Source: Vicinity Jobs

\* Number of Postings applicable to the reporting period but excluded from this report's grand total due to lack of reliable and relevant information: 2.

## Sector Development

The Province of Ontario is supporting critical upgrades and repairs at hospitals and community health service providers around Niagara with a \$2,012,386 investment through the Health Infrastructure Renewal Fund and Community Infrastructure Renewal Fund. Niagara Health, which operates five sites around the region in St. Catharines, Niagara Falls, Welland, Fort Erie, and Port Colborne, will receive \$1,308,967 for the 2022-23 fiscal year.<sup>14</sup> This funding is a part of the over \$1.2 billion investment previously announced to help hospitals recover from financial pressures created and worsened by the COVID-19 pandemic, while ensuring they can continue providing the high-quality care Ontarians expect. This funding will also help to ensure that Ontario's hospitals are able to respond to any scenario as the COVID-19 pandemic evolves.<sup>15</sup>

## Global Market Drivers

Niagara's health care segment is the region's biggest sector and is made up of a robust ecosystem of offices of physicians, dentists, health care practitioners as well as outpatient care centers. Niagara's emerging sector analysis emphasizes biotechnology, pharmaceutical manufacturing, and medical devices. Niagara has growing scientific research and development services and medical and diagnostic laboratories. The health care market is driven by the projection of global revenues for health care increasing over the next few years. In particular, the development of pharmaceuticals is expected to grow as the demand for drugs increases.

<sup>14</sup> FDI Markets

<sup>15</sup> Niagara Health. Retrieved from

<<https://www.niagarahealth.on.ca/site/news/2021/09/29/ontario-investing-in-hospitals-in-niagara>>

Niagara's pharmaceutical industry does not have a strong ecosystem to support business attraction efforts, this might change as the region has increasingly received investment for new hospitals and health care facilities, which could improve the region's profile for the life sciences field. A potential means to capitalize on the health care market is to examine the intersection between personal care industry (LQ 1.22) and trends in functional food and plant-based nutrition. A favourable outlook towards medical nutrition considering the increasing application for the treatment of cardiovascular disorders and malnutrition is likely to stimulate the growth of dietary supplements. Rising health care costs, coupled with the growing geriatric population across the world, are anticipated to assist the growth of the global functional food industry over the forecast period.

It is also notable that Niagara has an existing strength in manufacturing and expertise in engineering and advanced components which can be capitalized on to supply the medical equipment and device industry. With existing companies in the segment in Niagara, the prosthetics and orthotics market are a potential avenue to explore alongside the region's hospitals and overarching life sciences sector. The need for prosthetics and orthotics is increasing due to demand driven by sports injuries, diabetes-related amputations, and other accidents. Growth in this segment is being propelled forward by the need to respond to specific injuries and respond to niche patient needs. The potential for Niagara to capitalize on these trends stems from its strong health care ecosystem and further ties into the region's potential to position itself as a rehabilitation hub for sports injuries and connects with the region's active economy sector.

In terms of regions, North America is the strongest market in the advancement of prosthetic technology, which is important to note given that research and development (R&D) is clustered in the United States. Investment in this segment is usually coupled with a research institute or university supporting industry. For example, Liberating Technologies, a company that produces intuitive control technology for advanced prosthetic upper limbs located in Massachusetts is supported by the U.S. Department of Defense, National Institutes of Health, Department of Education, Veteran's Administration and National Institutes on Disability, Independent Living, and Rehabilitation Research.

### **Investment Trends & Location Factors**

At least 8 major FDI projects were recorded in the health care and life sciences research and development sector and its supply chain in Ontario from 2018 to 2022. 50% of the projects were established in the pharmaceutical sector. Some of the most noteworthy projects include:

- In December 2021, the Ontario government supported Norgen Biotek to scale up production of COVID-19 saliva-based test kit. This investment (more than \$13 million) funded the upgrade of Norgen's Thorold facilities, equipment and production materials. Ontario made this possible through the Ontario Together Fund in 2021–22. The fund was created to support local innovators and businesses to further enhance Ontario's domestic supply chain capacity, promote Ontario's MedTech ecosystem and build up our manufacturing sector to ensure the province is well-prepared for future challenges.<sup>16</sup>
- In May 2021, the federal government announced a \$200-million investment to help a Mississauga-based company build a plant that can churn out millions of mRNA vaccines. This investment was used to expand an existing site owned by Resilience Biotechnologies Inc. to provide made-in-Canada solutions such as vaccines and treatments for future pandemics. The funds are expected to expand Resilience's manufacturing and fill-finish capacity for a number of vaccines and therapeutics, including mRNA shots like the ones now being used to fight COVID-19.<sup>17</sup>
- In October 2020, Roche Canada, which develops medicines and diagnostic tests and is a subsidiary of Switzerland-based Roche Group, established Roche's Global Pharma Technical Operations site at its headquarters in Mississauga. The firm will invest \$500 million into the project through 2025. It has created 200 jobs and will create a further 300 jobs by 2023.
- In 2018, United States-based Alnylam Pharmaceuticals, a pharmaceutical manufacturer, opened a new facility in Mississauga. The facility houses the company's centralized commercialization and medical functions. Its medical function educates doctors about the diseases and treatment options and connects with patient networks.

In the life sciences cluster more generally, Ontario reported 40 projects. 45% of these projects were in the pharmaceutical subsector, 15% of total projects were in medical devices and an additional 15% were in business services. Examining motives and determinants for projects in the health care sector shows that the most important unique location requirements for foreign direct investment into North America are a strong industry cluster and skilled workforce. As these factors are more or less equally considered by investors in the health care sector, it is important to consider the wider ecosystem when highlighting Niagara's assets and regional strengths. Compared to the

---

<sup>16</sup> Government of Ontario. Ontario Invests in COVID-19 Test Kits Made in Thorold. News Release.

<sup>17</sup> CBC News, retrieved from < <https://www.cbc.ca/news/politics/federal-government-200-million-mrna-1.6031024>>

other target sectors, innovation and research also plays a much stronger role in site selection.

Figure 8 – Investment motives into the North American health care and life sciences market

Motive	% of FDI Projects	% of Companies
Industry cluster	42.6	44.4
Skilled workforce availability	41.1	42.8
Technology and innovation	25.0	26.9
Universities and research hubs	23.5	23.8
Proximity to markets or customers	23.5	25.3
Government support	10.2	11.1
Quality of life	2.9	3.1
Sites & property	2.9	3.1
Taxes & incentives	1.4	1.5
Transport infrastructure	1.4	1.5
Lower costs	1.4	1.5
Regulatory environment	1.4	1.5

Source: fDimarkets

## Outlook

Revenue in the United States' health care and life sciences sector is expected to reach US\$17.7 billion in 2023 and will grow by a compound annual growth rate (CAGR) of 12% from 2027 and will result in a predicted market value of US\$28.7 billion.<sup>18</sup> The health care and life sciences sector in Asia represents a bigger market value and is projected to reach US\$26.8 billion in 2023 and will grow by a CAGR of 6% from 2023 to 2027.<sup>19</sup> The health care and life sciences market in Europe is the smallest out of the target regions representing US\$12.1 billion in 2023, the segment is expected to grow by a CAGR of 11% by 2027.<sup>20</sup> The global market for prosthetics and orthotics was valued

<sup>18</sup> Statista. Retrieved from <<https://www.statista.com/outlook/dmo/ecommerce/beauty-health-personal-household-care/health-care/united-states>>

<sup>19</sup> Statista. Retrieved from <<https://www.statista.com/outlook/dmo/ecommerce/beauty-health-personal-household-care/health-care/asia>>

<sup>20</sup> Statista. Retrieved from <<https://www.statista.com/outlook/dmo/ecommerce/beauty-health-personal-household-care/health-care/europe>>

at \$US 6.39 billion in 2021 and is expected to grow at a CAGR of 4.3% from 2022 to 2030.<sup>21</sup>

The Pharma R&D Annual Review 2022<sup>22</sup> shows that the United States is the biggest home to research and development in pharmaceuticals accounting for over 10,700 drugs, which represent 53% of the pipeline. The second biggest market is China (over 4,100 drugs) and the United Kingdom (over 2,800). It is notable that the United States also represents the biggest market for research and development companies by HQ representing 46% of the market followed by Europe, which accounts for 14% of the market and the Asia Pacific (excluding China), which represents 13% of the market.

The global nutraceutical ingredients market size was valued at US\$176.84 billion in 2021 and functional food trends. In terms of research and development areas in the market, biotechnology, anticancer and neurobiological drugs have been the most sought-after therapies and have all consistently been growing since 2021.<sup>23</sup> Based on functional food products, prebiotics and probiotics are projected to expand at a CAGR of 10.1% over the forecast period owing to increasing usage of probiotics as a primary ingredient among the majority of food manufacturing companies to provide better nourishment and reduce health problems caused by harmful bacteria.<sup>24</sup> Vitamins and minerals as products stood out to increasing consumer interest in the relationship between diet and health increasing demand for nutraceuticals.<sup>25</sup>

It is notable that medical laboratories are in growing demand in Ontario. CBRE estimates that demand for laboratory space exceeds what is currently available by a factor of 141, particularly in Toronto.<sup>26</sup> The demand for medical laboratories and wet labs where drugs, chemicals and other liquids can be analyzed are needed to respond if the pharmaceutical industry is to grow in the region. For now, Niagara is yet to establish itself in this segment, but is a potential avenue worth exploring alongside the health care and life sciences sector.

---

<sup>21</sup> Grand View Research. Retrieved from  
<<https://www.grandviewresearch.com/industry-analysis/prosthetics-orthotics-market>>

<sup>22</sup> Pharma R&D Annual Review, 2022.

<sup>23</sup> Ibid.

<sup>24</sup> Grande View Research. Retrieved from  
<<https://www.grandviewresearch.com/industry-analysis/nutraceuticals-market>>

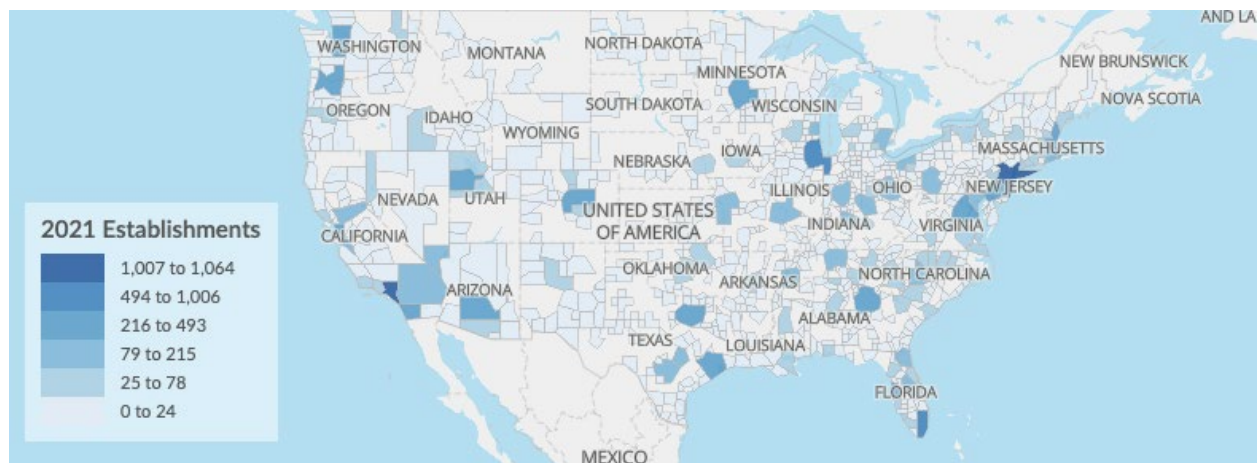
<sup>25</sup> Ibid.

<sup>26</sup> CBRE. Retrieved from <<https://www.cbre.com/press-releases/greater-toronto-area-is-missing-out-on-opportunities-as-demand-for-laboratory-space-balloons>>

## Recruitment Zones

Examining prospective growth companies in health care and life sciences shows that 52% are located in the United States, 15% in Germany, and 4% in Canada.<sup>27</sup> Based on real estate and employment growth as well as concentrations of life sciences companies, hubs in the United States are Boston, San Francisco, San Diego, Washington-DC-Baltimore-Maryland, Raleigh-Durham, New Jersey, and New York. Emerging hubs are Houston, Austin and Detroit. Top source countries outside the United States include United Kingdom, Switzerland, the Netherlands, Germany, France, Japan, and China.<sup>28</sup>

Figure 9 – Health care and life sciences hubs in the United States



Source: Lightcast

<sup>27</sup> Gazelle AI

<sup>28</sup> Percent of companies in each country that are predicted to be high growth is based on Gazelle.ai's AI-generated G-score that indicates likely expansion of companies in the next 18-24 months (<https://gazelle.ai/our-data/>)



# SWOT Analysis

The following is an overview of the strengths, weaknesses, opportunities, and threats that face the health care and life sciences sector in the Niagara region. This SWOT analysis utilizes the background research that was completed for the sector, as well as engagement from key stakeholders from the health care and life sciences sector in Niagara region.

Marketing messaging is recommended to align with the opportunities and strengths statements detailed below, which were drawn from stakeholder focus group sessions and uncovered through the research.

**Key subsectors:** medical nutrition, medical equipment, and devices

Sector SWOT	
Strengths	Weaknesses
<ul style="list-style-type: none"><li>Niagara's health care segment is the region's biggest sector and is made up of a robust ecosystem of offices of physicians, dentists, health care practitioners as well as outpatient care centres.</li><li>Niagara has growing scientific research and development services as well as medical and diagnostic laboratories, such as Biosafety level 3 lab at Brock University and other research assets that can be used to attract research and development in the health care sector.</li><li>Niagara has an existing strength in manufacturing and expertise in engineering and advanced components, which can be capitalized</li></ul>	<ul style="list-style-type: none"><li>Overall, the health care and life sciences sector show a moderate concentration of businesses in the Niagara region (relative to Ontario), and the existence of a cluster is the leading motivator for foreign direct investment, motivating 42.6% of FDI projects.</li><li>Niagara's pharmaceutical industry ecosystem could be strengthened to support business attraction efforts.</li><li>Staffing in the health care field is reported to be difficult, including recruiting and retaining medical staff to the region.</li></ul>

<p>on to supply the medical equipment and device industry.</p> <ul style="list-style-type: none"> <li>• The health care and life sciences sectors are projected to grow significantly between 2022 to 2028. The sector will add 2,895 jobs; a 10% increase compared to 2022.</li> <li>• Demand for workers in the sector have increased more than 100% between 2020 and 2022.</li> </ul>	<ul style="list-style-type: none"> <li>• There is a lack of collaboration across the region in the health care and life sciences sectors.</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Examine the intersection between Niagara's strengths in the personal care industry and trends in functional food and plant-based nutrition.</li> <li>• Attract ventures in the life sciences and help support researchers to expand and create businesses in the region.</li> <li>• Work to establish medical laboratories, which are in growing demand in Ontario.</li> <li>• Opportunities to connect component, textile, and plastics manufacturing with the health and life sciences sector, in growth areas such as prosthetics and orthotics.</li> <li>• Explore facilitation of research between private clinics and post-secondary institutions with the goal of commercialization and the start-up of new businesses, drawing connections with global trends where there is interest. At this time, rehabilitation, pharmaceuticals, and nutraceuticals are identified in the research as relevant global trends.</li> <li>• Develop workforce attraction and retention programming in relation to target subsectors within the sector.</li> </ul>	<ul style="list-style-type: none"> <li>• Health care funding is largely Provincially controlled, and research funding is competitive. Partners report the region has seen cuts to services.</li> <li>• Health Canada approvals for labs and research projects can create delays and a longer timeframe for investment.</li> <li>• High costs of equipment in the life sciences sector can deter initial investment.</li> <li>• Access to specialized testing and labs for health care are essential to support investment and labs are underdeveloped across the province.</li> <li>• The differences between the Canadian and United States health care systems can create challenges for local service development. Some residents are choosing to access health service from Buffalo, New York, due to wait times in the regional health care system.</li> </ul>

# Conclusion

The Health Care and Life Sciences Sector is at an early stage of development in Niagara region, and investment attraction efforts will require a long-term approach including building private sector and research partnerships, increasing the presence of a business cluster, developing related workforce strengths, and navigating the regulatory approval of support facilities such as labs.

Niagara is relatively distant from some competitive jurisdictions in Canada's life sciences corridor from Hamilton to Québec City. Improving transportation linkages with major centres is important for the region's competitive position in the health care and life sciences sector and other emerging sectors.

To move into a leadership position in the health and life sciences sectors, global trends point to opportunities in pharmaceuticals, prosthetics and orthotics, and nutraceuticals. The strength of Niagara region's health care sector is currently centered on population-based businesses, including outpatient care and residential care services. Connecting the existing business community with these areas of opportunity and building momentum for business development in health care and the life sciences will create the building blocks to position the sector for growth.



**[www.deloitte.ca](http://www.deloitte.ca)**

### **About Deloitte**

Deloitte provides audit and assurance, consulting, financial advisory, risk advisory, tax, and related services to public and private clients spanning multiple industries. Deloitte serves four out of five Fortune Global 500® companies through a globally connected network of member firms in more than 150 countries and territories bringing world-class capabilities, insights, and service to address clients' most complex business challenges. Deloitte LLP, an Ontario limited liability partnership, is the Canadian member firm of Deloitte Touche Tohmatsu Limited. Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see [www.deloitte.com/about](http://www.deloitte.com/about) for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

Our global Purpose is making an impact that matters. At Deloitte Canada, that translates into building a better future by accelerating and expanding access to knowledge. We believe we can achieve this Purpose by living our shared values to lead the way, serve with integrity, take care of each other, foster inclusion, and collaborate for measurable impact.

To learn more about Deloitte's approximately 330,000 professionals, over 11,000 of whom are part of the Canadian firm, please connect with us on [LinkedIn](#), [Twitter](#), [Instagram](#), or [Facebook](#).

© 2023 Deloitte LLC