

Canada's Top 40 Research Hospitals List 2011 Analysis

Hospital Research Tops \$2 Billion

Canada's Top 40 Research Hospitals reported a substantial \$2.07 billion in research income in Fiscal 2010, up from \$1.93 billion in Fiscal 2009 – a 7.2% year-over-year increase.

The country's largest research hospital is Toronto's University Health Network, which on its own garnered \$267.7 million of research support. Hamilton Health Sciences (\$180.4 million) and Toronto's Hospital for Sick Children (\$172.2 million) rounded out the top 3 institutions in the country, followed by Montreal's McGill University Health Centre (\$131.1 million).

Twenty-six hospitals posted increases in their research income, compared with 14 hospitals where income was flat or declined.

The \$100 Million Club

In Fiscal 2010, 6 research hospitals gained membership in RESEARCH Infosource's \$100 Million Club, an elite group of institutions that each attracted at least \$100 million of research income. This was an increase from 4 hospitals in Fiscal 2009. Sunnybrook Health Sciences Centre (\$106.0 million) and Ottawa Hospital (\$104.9 million) joined the Club in Fiscal 2010.

2010 Rank	The \$100 Million Club		
	Research Hospital	Research Income \$000	Hospital Type
1	University Health Network	\$267,654	General
2	Hamilton Health Sciences	\$180,435	General
3	Hospital for Sick Children	\$172,213	Pediatric
4	McGill University Health Centre (MUHC)	\$131,147	General
5	Sunnybrook Health Sciences Centre	\$106,000	General
6	Ottawa Hospital	\$104,948	General

Provincial Performance

Nineteen Ontario hospitals on the Top 40 list accounted for 59% of total reported research income, followed by 14 hospitals in Quebec that received 27% of total income. Three British Columbia hospitals garnered 11% of total research income.

Top 40 – By Province	
Province¹	% of Total
Ontario (19)	59
Quebec (14)	27
British Columbia (3)	11
Nova Scotia (2)	2
Manitoba (2)	2

Average research income per province varied considerably. Three British Columbia hospitals on the list attracted an average of nearly \$75.7 million in research income, compared with \$64.2 million for 19 research hospitals in Ontario. On average, the 40 hospitals received \$51.7 million each.

Top 40 – Average Research Income	
Province¹	Average Research Income FY2010 \$000
British Columbia (3)	\$75,658
Manitoba (2)	\$17,775
Ontario (19)	\$64,192
Quebec (14)	\$39,216
Nova Scotia (2)	\$19,023
Total Research Hospitals (40)	\$51,731

Ontario hospitals led the list on the basis of research income received per-capita (per provincial resident). Ontario hospitals attracted an average of \$92 research dollars per capita, followed by Quebec hospitals (\$69), British Columbia (\$50), Nova Scotia (\$40) and Manitoba (\$29).

Top 40 – Research Income Per Capita	
Province¹	Research Income Per Capita \$
Ontario (19)	\$92
Quebec (14)	\$69
British Columbia (3)	\$50
Nova Scotia (2)	\$40

¹ Data were not obtained from institutions in Alberta, Saskatchewan, New Brunswick, Prince Edward Island and Newfoundland.

Hospital Type Performance

The majority of research is conducted at General hospitals. Twenty-two General hospitals accounted for 69% of total research income received by the Top 40. A group of 5 Pediatric institutions accounted for an additional 15% of the total, followed by 3 hospitals specializing in Heart/Lung research. Ten hospitals providing Cancer, Psychiatric, Geriatric/Long-Term and Rehabilitation care accounted for a total of 10% of research income.

Top 40 – By Hospital Type		
Hospital Type	% of Total	Leader
General (22)	69	University Health Network
Pediatric (5)	15	Hospital for Sick Children
Heart/Lung (3)	5	Institut de Cardiologie de Montréal
Cancer (1)	4	British Columbia Cancer Agency (Provincial Health Services Authority)
Psychiatric (4)	4	Centre for Addiction and Mental Health
Geriatric/Long-Term (3)	1	Baycrest
Rehabilitation (2)	1	Toronto Rehabilitation Institute

Gainers and Losers

Overall, 26 hospitals posted gains in research income compared with 14 where income declined or flat. Strong gains in income were reported at two institutions operated by the Provincial Health Services Authority – British Columbia Cancer Agency (96.0%) and British Columbia Children’s Hospital (39.7%). Strong gains were also recorded at Toronto Rehabilitation Institute (32.5%), Sunnybrook Health Sciences Centre (26.2%) and Centre hospitalier affilié universitaire de Québec (CHA) (25.9%).

Top 10 Research Hospitals by Growth			
2010 Rank		Research Hospital	% Change 2009-2010
Income Growth	Overall		
1	7	British Columbia Cancer Agency (Provincial Health Services Authority)	96.0
2	12	British Columbia Children's Hospital (Provincial Health Services Authority)	39.7
3	29	Toronto Rehabilitation Institute	32.5
4	5	Sunnybrook Health Sciences Centre	26.2
5	30	Centre hospitalier affilié universitaire de Québec (CHA)	25.9
6	16	Institut de Cardiologie de Montréal	25.0
7	40	Thunder Bay Regional Health Sciences Centre	25.0
8	37	Hôpital Rivière-des-Prairies	24.1
9	6	Ottawa Hospital	19.6
10	3	Hospital for Sick Children	17.7

Apparent ties due to rounding

While research income declined/flat at 14 hospitals, year-on-year drops are less significant than long-term trends.

Bottom 5 Research Hospitals by Growth			
2010 Rank		Research Hospital	% Change 2009-2010
Income Growth	Overall		
1	36	Hôpital du Sacré-Coeur de Montréal	-23.0
2	9	Vancouver General Hospital/University of British Columbia (UBC) Hospital (Vancouver Coastal Health Authority)	-18.9
3	23	Health Sciences Centre (Winnipeg Regional Health Authority)	-15.0
4	31	Children's Hospital of Eastern Ontario	-13.2
5	2	Hamilton Health Sciences	-5.6

This Year and Next

Canada's Top 40 Research Hospitals are a key part of the national innovation system. To illustrate, the \$2.07 billion of research income garnered by the Top 40 is equivalent to about 1/3 of the total research income reported by Canadian universities. If research hospitals that did not report data this year were to be included, the proportion would undoubtedly be even higher. Many hospitals operate on a scale of research activity that compares favourably with universities. For instance, the 6 largest hospitals all attracted research income in excess of \$100 million, which was more income than was received by 34 of the country's Top 50 Research Universities. In fact, most research hospitals work closely with local universities; hospital researchers are commonly cross-appointed to university faculties, and vice versa. Clearly, our leading hospitals are research powerhouses, and awareness of the importance of research hospitals in the national system of innovation is growing.

Like all research institutions hospitals are heavily dependent on outside funding forces. Most of their income comes from sources external to the institution; in particular governments, charities and the corporate sector. It is no secret that the pharmaceutical sector has seen its Canadian research funding support decline for a number of years. Charitable support has grown in recent years, but charities depend on the contributions of individuals, who may cut back as economic conditions deteriorate. Foreign sources also sponsor a considerable amount of research at Canadian hospitals, and a slowing world economy will put pressure on those sources of support.

Economic headwinds will make 2011 and beyond a difficult environment in which to attract research income. Government funders in particular will be looking to rein in deficits. The bottom line is that hospitals' research funding situation is clouded. The research community is anxiously awaiting forthcoming federal and provincial budgets for clues about research support.