



FEDERAL FUNDING FOR HEALTH RESEARCH

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Definition of Health Research

With the creation of the Canadian Institutes of Health Research (CIHR) in 1999, the federal government expanded its definition of health research. This definition goes beyond the previous emphasis on basic and applied medical research – mostly biomedical and clinical research activities – to encompass a wider range of disciplines and components. The shift was part of the general movement toward a population health approach that recognizes health as broader than health care. It was also a response to the increasing need to obtain evidence-based information to allow for effective health care reform and renewal.

More specifically, federally funded health research encompasses four main research components:

- **biomedical** – pertaining to biological organisms, organs and organ systems;
- **clinical** – involving direct observation of people undergoing medical care;
- **health services** – embracing health care delivery, administration, organization and financing; and
- **population health** – focusing on the broad factors that influence health status (e.g., socio-economic conditions, gender, culture, education).

This definition is broader than the measures of health research used by the Organisation for Economic Co-operation and Development (OECD). The OECD defines health research as research and development (R&D) activities directed at the protection and improvement of human health. The OECD definition, which addresses only the first two components (biomedical and clinical) of the federal approach to health research, includes scientific research and experimental development on: food hygiene and nutrition; radiation used for medical purposes; biochemical engineering; medical information; rationalization of treatment; pharmacology (including testing medicines and breeding of laboratory animals for scientific purposes); epidemiology; prevention of industrial diseases; and drug addiction.

The difference in definitions raises the question of what the expanded federal perspective on health research might mean for international data comparisons and compatibility. It is unclear whether Canada will continue to collect separate sets of data related to health research for international purposes. But most importantly, this expanded perspective raises questions about the funding as well as the organization of health research at the federal level.

Level of Federal Funding

The federal government plays an important role in funding health research in Canada. Indeed, the federal government's contribution has increased each year since 1996, and in 2002 it stood at \$692 million, its highest level yet (see Appendix 1). Despite this, the proportion of health research dollars remains relatively static for the federal government at 16%, due to an overall increase in contributions from other sources (see Appendix 2). In particular, the private sector has been the leading source of funds for health research since 1994 and has been steadily increasing its investment. In terms of gross domestic expenditure on R&D, Canada has been investing more in the health area, rising from 13.5% in 1988 to 21.3% in 2002 (see Appendix 3).

Researchers in federal government facilities conduct a relatively small proportion of federally funded health research (about 20% in 2002). Federal facilities in which health research is performed include Health Canada (in facilities nationwide), Statistics Canada, the National Research Council, Social Development Canada and Environment Canada (in partnership with Health Canada). For the most part, health research funded by the federal government takes place in universities and hospitals, private not-for-profit organizations, and business enterprises.

Federal Funding Bodies in Canada

The principal federal funding body for health research is CIHR, which is the only federal entity whose budget is entirely devoted to health research. The CIHR's

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creation in 1999 entailed a merger of the Medical Research Council of Canada and the National Health Research and Development Program (NHRDP), Health Canada's main financing instrument for extramural health research. Health Canada is also involved in intramural research funding, as well as extramural funding, that is devoted to the health field. Areas covered include numerous diseases (such as AIDS and cancer), products (such as food) and groups (such as Aboriginal people).

In addition to CIHR and Health Canada, there are other research-oriented bodies supported by the federal government along with other partners where the focus is entirely health-related. These include the Canadian Health Services Research Foundation (CHSRF), the Canadian Institute for Health Information (CIHI), and the Canadian Coordinating Office for Health Technology Assessment (CCOHTA). (See Appendix 4 for a list of primary sources of federal health funding in 2004.)

There are also several secondary sources of federal health research funding. In addition to Statistics Canada, the federal government is responsible for a number of research councils, agencies, foundations and programs of which a portion of the budget goes to research that can be categorized as health research. These include the Natural Sciences and Engineering Research Council, the Social Sciences and Humanities Research Council, the Canadian Foundation for Innovation, Genome Canada, the Canada Research Chairs, and the Networks of Centres of Excellence (NCEs). It is worth noting that 7 of the currently funded 21 NCEs conduct health research in the fields of arthritis, bacterial diseases, vaccines and immunotherapeutics, stroke, stem cells, genetic diseases, and protein engineering.

Federal Funding for Health Research by Category of Disease or Group

It is often asked whether it is possible to indicate the total cost of all ongoing federally funded health research projects by particular categories (for example, by diseases such as AIDS, cancer, etc.) or by group (such as women, children, Aboriginal people, etc.). However, it has always been difficult to compare funding dedicated to the research of different disease entities or population groups.

Given the increased variety of federal agencies and programs offering interdisciplinary and intersectoral health research, it is becoming even more problematic to provide an answer, for several reasons:

- All basic or biomedical research can be applied to multiple illnesses, groups, or health services.
- Biomedical, clinical or health service research aimed at one specific illness may be relevant to other illnesses.
- Research bodies may carry out or finance research on a given topic through different sections (for example, Health Canada through several branches and programs, and CIHR through several institutes), without maintaining subject-specific inventories of research.
- The project title or subject heading used by the funding body or research facility does not necessarily reflect the illness or the group to which it is directed.
- Projects funded for multiple years with a single grant may be overlooked by searches carried out after the funding year.
- Grants allowing equipment purchases and salaries are clearly an investment in health research but are not necessarily allocated to any category.

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APPENDIX 1

GROSS DOMESTIC EXPENDITURES ON R&D IN THE HEALTH FIELD, BY FUNDING SOURCE (\$ million)

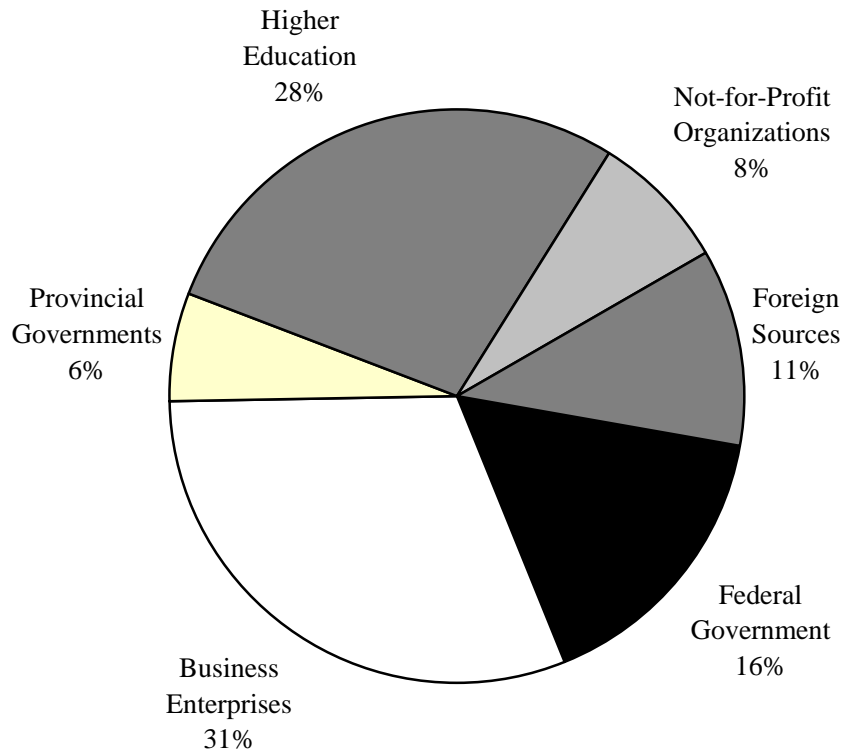
Year	Federal Government	Provincial Governments	Business Enterprises	Higher Education	Private Not-for-Profit	Foreign Sources
1988	255	95	198	500	138	35
1989	282	129	251	532	143	28
1990	334	145	333	558	152	29
1991	322	147	367	616	173	40
1992	317	149	442	670	138	67
1993	351	146	533	713	178	85
1994	354	148	581	721	200	101
1995	373	154	667	753	206	171
1996	347	144	736	754	239	262
1997	354	168	826	786	245	290
1998	379	172	920	864	244	331
1999	478	195	985	907	242	427
2000	561	232	1,215	990	285	458
2001	638	259	1,281	1,117	321	480
2002	692	281	1,354	1,228	352	503

PERCENTAGE CONTRIBUTION TO R&D IN THE HEALTH FIELD, BY FUNDING SOURCE

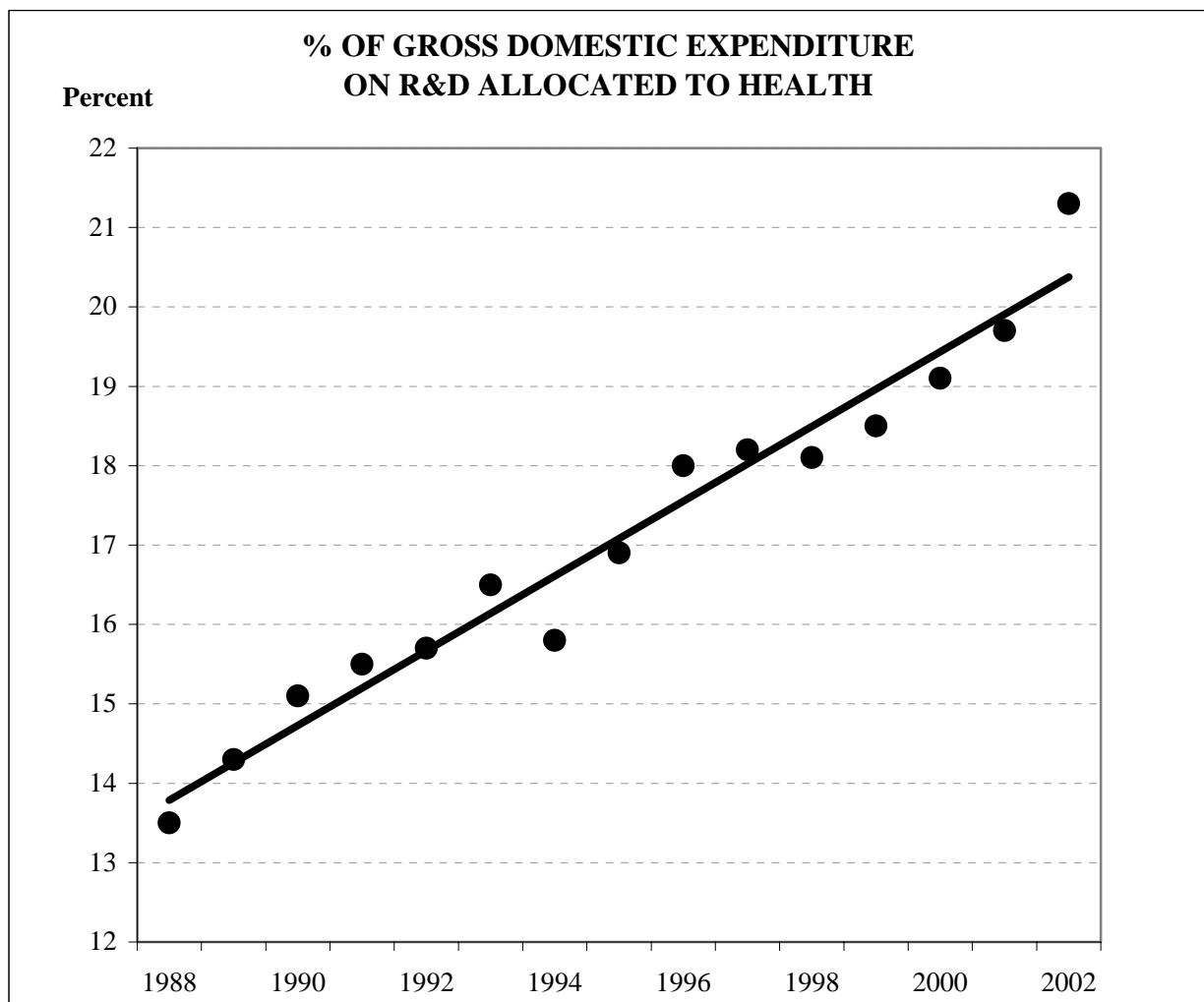
Year	Federal Government	Provincial Governments	Business Enterprises	Higher Education	Private Not-for-Profit	Foreign Sources
1988	21	8	16	41	11	3
1989	21	9	18	39	10	2
1990	22	9	21	36	10	2
1991	19	9	22	37	10	2
1992	18	8	25	38	8	4
1993	17	7	27	36	9	4
1994	17	7	28	34	10	5
1995	16	7	29	32	9	7
1996	14	6	30	30	10	11
1997	13	6	31	29	9	11
1998	13	6	32	30	8	11
1999	15	6	30	28	7	13
2000	15	6	32	26	8	12
2001	16	6	31	27	8	12
2002	16	6	31	28	8	11

APPENDIX 2

SOURCES OF FUNDING FOR HEALTH RESEARCH IN CANADA, 2002
(Total = \$4.4 Billion)



APPENDIX 3



APPENDIX 4

PRIMARY SOURCES OF FEDERAL HEALTH RESEARCH FUNDING IN 2004

Primary Funding Source	Budget Year	Federal Contribution
Canadian Institutes of Health Research	2004-2005	\$662 million (2004-2005)
Health Canada Population Health Fund		\$14 million annually
Health Canada Centres of Excellence for Children's Well-Being	2000	\$20 million over 5 years
Canadian Health Services Research Foundation (CHSRF)	n/a	\$130 million endowment, generating \$10-12 million annually
CHSRF Nursing Research Fund	2000	\$2.5 million annually (for 10 years)
Canadian Institute for Health Information – Canadian Population Health Initiative	2002-2003	\$15 million over 4 years (2003-2007)
Canadian Coordinating Office for Health Technology Assessment	2004	\$16.2 million annually (including Common Drug Review)
Primary Health Care Transition Fund	2004-2005	\$245 million