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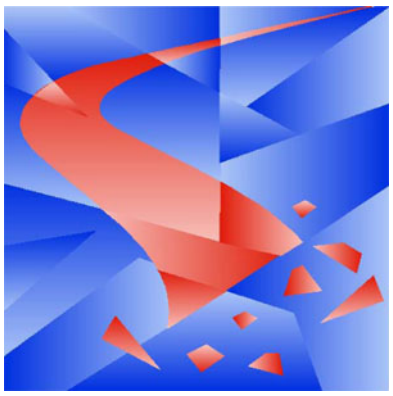
Occupational and Environmental Health Research Projects: A Descriptive Catalogue

1978 to 2005



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Health Statistics Division

Occupational and Environmental Health Research Projects: A Descriptive Catalogue

1978 to 2005

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Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

Acknowledgements

The studies described in this document have been made possible because of the collaboration and cooperation of the provincial and territorial vital statistics and cancer registries with Statistics Canada. Many of the projects were carried out on a cost-recovery basis for various agencies, including government, cancer agencies, hospitals, private companies, and universities. Researchers at agencies such as the Atomic Energy of Canada, the National Cancer Institute of Canada, the University of Toronto, Health Canada, and Atomic Energy Control Board have partnered with Statistics Canada in several research projects relating to occupational and environmental health, data collection, the development and improvement of record linkage and statistical methods, the creation of generalized record linkage software, and the development of the national data bases for statistical uses.

Project teams have been instrumental in executing the studies over the years. These linkage projects were coordinated at Statistics Canada by: Hélène Aylwin, Maureen Carpenter, Elizabeth Coppock, Martha Fair, Bryan Lafrance, Pierre Lalonde, Joan Lindsay, Lana Marjama, Deborah Jordan-Simpson, Karen Roberts, John Silins, Mary Werner, and Dores Zuccarini.

Special mention should be made of the creative work of Pierre Lalonde in organizing and developing the Canadian Mortality Data Base, Christine Poliquin for her work on the Canadian Cancer Data Base, and Margaret Cyr for the Canadian Birth Data Base development. Ted Hill was instrumental in developing the Generalized Record Linkage System, and more recently Evelyn Perkins has been working in this area. Jane Carswell and Jean-Luc Bastien have assisted with many of these studies over the years. Dores Zuccarini has provided valuable assistance for the preparation of this publication.

We also wish to acknowledge the contribution of the late Dr. Howard Newcombe who passed away on February 14, 2005. He was an early pioneer of record linkage in Canada and provided invaluable assistance to the Occupational and Environmental Health Research Section. He participated in several record linkage workshops, and gave inspiration to many researchers in Canada and worldwide.

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Preface

Occupational and environmental health research section

This report briefly describes over 100 studies that have been carried out by, or are related to, the activities of the Occupational and Environmental Health Research Section (OEHRS) within Health Statistics Division at Statistics Canada. The projects were originally carried out from 1978 within the Vital Statistics and Disease Registries Section at Health Division. In 1989, the Occupational and Environmental Health Research Section was created in response to researchers and the user community's demand for statistical, policy-relevant information pertaining to occupational, lifestyle, medical, socio-economic and environmental factors that influence health.

The current activities at OEHRS involve:

1) developing and updating national historic and current administrative surveys and administrative databases in a form suitable for record linkage purposes, such as cancer and national vital statistics data;
2) collaborating with agencies regarding data collection, computer linkage software development and its evaluation, and the design of feasibility studies;
3) partnering in the interdisciplinary development and writing of methodological and analytical research publications regarding the health of Canadians, particularly where long-term medical follow-up is required using information from linked data bases available at Statistics Canada; and
4) providing services to clients for cost-recovery projects.

Health at work and healthy working environments are among the most valuable assets of individuals, communities and society. According to the principles of the United Nations, World Health Organization, and the International Labour Organisation, every citizen of the world has a right to healthy and safe work and to a work environment that enables him or her to live a socially and economically productive life (WHO, 1995). Occupational health is an important strategy not only to ensure the health of workers, but also to contribute positively to productivity, quality of products, work motivation, job satisfaction, and thereby the overall quality of life of individuals and society (WHO, 1994). It is important to enhance occupational research methods because of the need to identify occupational carcinogens to protect workers and possibly the general public from further exposures. New hazards are emerging or just becoming apparent associated with the use of new occupational and medical technologies.

Looking at the past – planning for the future

The focus of OEHRS is on the identification of data gaps and finding solutions, often through the use of record linkage. For example, at present there is no routine systematic means of linking cancer incidence, employment, industry, occupation, and workplace exposure over time and regions in Canada. The proportion of cancer cases attributable to occupational exposures is difficult to establish given the long latency period of cancer. There is a lack of data regarding exposure levels over time and many factors are involved in the development of cancer. Exposures to one particular environmental risk can often lead to a wide range of health effects, including respiratory illness and heart disease. Both exposure and health outcomes may be affected by other conditions such as genetic, social, economic and demographic factors.

Record linkage is the bringing together of one or more records relating to the same individual, person, family or entity. The removal of duplicates from a file, the linkage of cancer records with death records to create survival statistics, and the linking of records of a certain cohort to the cancer or death files for medical follow-up are three examples of record linkage projects.

The early mathematical theoretical work of Drs. Fellegi and Sunter regarding record linkage was oriented to the problem of merging the information content of large administrative files in order to create a statistically useful source of new information (Fellegi and Sunter, 1969). In the presence of identifying information on records, how does one decide which pairs of records should be regarded as linked? There was a need to reduce respondent burden and costs, improve data quality and timeliness, and make better use of existing data sources.

The early work at OEHRS concentrated on the building of the necessary computer software along with the historic and current national files required for such studies. The generalized record linkage system was developed at Statistics Canada to carry out the linkages of different files, the system being developed with a focus on its early application in the health area. This system was later updated based on advances in computer software and hardware developments and used in a variety of settings. A policy on record linkage was also developed by Statistics Canada.

The types of analytical studies have changed over the period, starting with mortality studies at the national level. Efforts have been made to add detailed work and exposure histories, with these data sources usually originating from outside agencies for particular studies. The statistical products are being used in a variety of settings both provincially and nationally, in North American studies, and for international collaborative investigations. For example, in addition to the two groups of communities most benefited by occupational cohort studies (workers and the general public), other groups of scientific communities have utilized the studies, including the International Agency for Research on Cancer (IARC). IARC has published a monograph series based on epidemiological data from studies in humans, animal and laboratory tests. Since its inception in 1972, the series has reviewed around 900 agents, and serve as invaluable sources of information both for researchers and national and international authorities. Several projects described in this current publication have been considered important by several international agencies in their assessment of the carcinogenicity of agents (e.g. nickel, aluminum, radon, butadiene and styrene) and for multi-country studies (e.g. of nuclear power industry workers).

Effective partnerships have been the key to progress made thus far, and will be even more critical in the future to meet the varying statistical needs of users. For example, progress in occupational and environmental health will require interdisciplinary and inter-agency research involving workers, epidemiologists, industrial hygienists, clinicians, methodologists, computer scientists, statisticians, data suppliers and data users. It is anticipated that there will be more extensive use of survey, census, clinical trial and morbidity data in the future.

Record linkage policy at Statistics Canada

Statistics Canada carries out a wide range of record linkage work given the broad mandate of the organization. There are two main categories of record linkage currently conducted at Statistics Canada: 1) linkages to support the design, maintenance, evaluation, research and re-design of ongoing data collection and methodological studies within the Agency, and 2) linkages to provide statistical information in support of research studies. Many of the research studies are conducted on a cost- recovery basis.

A record linkage policy has been in place at Statistics Canada since 1986. This policy is publicly available on the Statistics Canada website www.statcan.ca and summary descriptions of all linkage submissions that have been approved since 2000 are listed on this website.

Some of the features of the policy and the operational steps required for its implementation have been described in a paper “Record linkage and public policy – a dynamic evolution” presented by Dr. I. Fellegi at an *International Workshop and Exposition of Record Linkage* held in Washington, D.C. (Fellegi, 1997). Every manager at Statistics Canada who wishes to sponsor a linkage application has

to submit a proposal describing the purpose, the expected public benefits, whether there is any possibility of harm to the individuals concerned, and whether there are feasible alternative approaches. In addition, the manager also has to describe the proposed methodology, and any features that might enhance privacy or confidentiality protection, and the retention period for the linked files. All record linkage proposals must satisfy a prescribed review and approval process which involves the submission of documented proposals to an internal expert committee.

The recommendations of the review committee are forwarded to the Chief Statistician who refers for ministerial approval all recommendations he supports and which represent types of linkages not previously approved by the Minister. The Chief Statistician may also consult with the Office of the Privacy Commissioner and, in some instances, public interest groups and members of the public when considering types of linkages not previously approved by the Minister. It is the Minister who applies the ultimate judgement regarding the trade-off between the expected public benefit and the degree of privacy invasion which may be involved. The public dissemination of information resulting from record linkages, like all other statistical information, is done only in such as way as to ensure that no individual can be identified.

Record linkage is a powerful tool for generating and obtaining increased value out of existing data bases. Record linkage can assist in unravelling the complex social, economic and environmental contexts that affect individual outcomes over time. It can reduce respondent burden and costs, while also improving quality and timeliness.

Types of studies

The research referenced in this publication, cuts across the complete life cycle of individuals from birth to death, including most age and disease specialties, as well as maternal and child health, cancer, and occupational and environmental health.

Studies have been carried out to enhance cancer registries and for the preparation of national survival statistics. These data are also used for health surveillance and in the development of data for health indicators (e.g. multiple birth rates, gestational age and birth weight-specific fetal and infant mortality rates).

Respondents to health surveys (e.g. the Nutrition Canada Survey), persons who participated in clinical trials (e.g. the national breast screening follow-up study) or those who received specific medical treatment and / or health care (e.g. a study to look at the expectation of health and survival among spinal cord injuries) have been followed up for statistical medical research purposes.

Studies of particular occupational groups (e.g., petroleum, sawmill, pulp and paper, nickel, radiation workers) are used to investigate cause-specific cancer and mortality. Methods have been developed for the creation of an occupational surveillance system for Canada (Aronson, Howe, Carpenter and Fair, 1990).

Data sources

Several national databases, as currently described in detail on the Statistics Canada website, are used as the input data sources for national vital statistics and cancer data, namely , the Vital Statistics – Death Database, the Vital Statistics – Birth Database, the Vital Statistics – Stillbirth Database and the Canadian Cancer Registry (which evolved from the National Cancer Incidence Reporting System (NCIRS)).

These data sources are processed further to create four databases used for historic and current record linkages. Efforts have been made to improve the availability and quality of data items required for linkage and analysis. The resulting databases are called the: 1) Canadian Mortality Data Base (CMDB); 2) Canadian Birth Data Base (CBDB); 3) Canadian Stillbirth Data Base (CSDB); and 4) Canadian Cancer Data Base (CCDB). For many long-term follow-up studies, outside clients will supply a cohort file, along with related detailed job, exposure and /or medical histories.

The Canadian Mortality Data Base contains all deaths dating back to 1950 occurring in Canada, along with the underlying cause of death. The Canadian Birth Data Base and the Canadian Stillbirth Data Base were developed for data from 1985 onward. These files have been used in a number of studies particularly relating to maternal, perinatal and infant health. The Canadian Cancer Data Base, dating back to 1969, was developed from two main sources: 1) the National Cancer Incidence Reporting System that contains data from 1969 to 1991, and 2) the Canadian Cancer Registry (CCR) from 1992 onward. The NCIRS is a fixed format, tumour-based file of cancer registrations in Canada, whereas the newer CCR system has evolved to be a dynamic, patient-oriented data base with the possibility of updates to individual histories (e.g. the addition of new primary cancers and death information). All Canadian provincial and territorial cancer registries now report their data to the CCR. From these two sources, the Canadian Cancer Data Base is created in a form suitable for use in record linkage studies. Some of the processing involves standardization and coding of name information and adding special numbers and duplicate flag information used by the generalized record linkage system. The CCDB file is linked by person and has death information added for most provinces and territories.

Uses of this publication

This publication is intended to help researchers undertaking similar or new studies. It provides vital statistics and cancer registrars with information regarding the uses of national files. It documents the uses of the generalized record linkage system at Statistics Canada. It also documents the work of the Occupational and Environmental Health Research Section of Statistics Canada's Health Statistics Division and the results of the studies to date.

These data are needed by:

- the general public and communities;
- consumers, workers, unions, and industry;
- cancer agencies in developing prevention strategies;
- workplace safety and insurance boards;
- public health agencies monitoring and prioritizing actions at the international, national, provincial and community level;
- various agencies at the international, national and provincial level setting regulations and standards regarding substances,
- departments and companies developing education and training materials to ensure workers are protected by the most up-to-date standards;
- boards developing compensation criteria, and
- health researchers and economists, particularly those interested in the social and economic burden of disease and the way this information can be integrated into the ongoing development of the social security system.

Uniform template

Each project is described in a uniform template format. A "template sample page" explains the details regarding each of the items and the use of superscripts letters.

The studies are presented in chronological order as they were initially carried out, with a few exceptions. Any updates for additional years for the same cohort and study are included on the same page. To identify similar studies, a search by theme is possible. A separate table of contents listed alphabetically by project is also provided.

Many of the research studies described in this publication were undertaken on a cost-recovery basis. The names of the main investigator(s) from the outside agency are provided. This document gives a list of known references detailing the record linkage methods used and the study results obtained where available. These could be papers published in peer-reviewed journals or internal working documents.

The list of publications is not an exhaustive listing regarding the complete project and their related components. Some of the criteria used for creating the list of references relating to the projects were:

- the publication related to work that was being done with emphasis on the linkages to national files, or is related to earlier work that gave results that indicated a need for a national study;
- it was a product of the study;
- the cohort was later analyzed with other similar cohorts and publications prepared; or
- the publication describes actions resulting from the study (e.g. improvement for the workers or working conditions, changes in policy).

Most publications appear in published journals and many abstracts are available using the United States National Library of Medicine's search service PUBMED.

In the References section of this document, citations are provided for papers relating to this preface, plus several general papers regarding the development and uses of record linkage and the Canadian Birth, Cancer and Mortality Data Bases at Statistics Canada.

Template sample page

Project

This is a standard name used for the project. The name usually includes the name of the data base being used (e.g. mortality, cancer and/or birth where appropriate).

Theme

Keywords are used to aid researchers wanting to search for a number of projects grouped according to health themes. Examples of themes are: cancer, heart, infant mortality, mental health, occupation, and survey.

Organization(s)

This is the name of the organization that requested work or collaborated with Statistics Canada on the project. A superscript is used in this field only if the organization(s) involved in the study changed over time; otherwise no superscript is used. The same superscript letter ($^{a,b,c..}$) is used to link information contained in the organizations (if changed), years, number of records, the main investigators, project coordination and project number fields for a particular update of the study.

Description of project

This is a brief description giving the purpose of the study.

Years

This lists the year(s) of the Canadian death, cancer and/or birth files being used. The same superscript letter ($^{a,b,c..}$) is used to link information contained in the organizations (if changed), years, number of records, the main investigators, project coordination and project number fields for a particular update of the study.

Number of records or individuals for the cohort

This is the approximate number of individuals or records in the cohort being linked (wherever available, broken down by gender). The number of records may be larger than the number of individuals because alternate entries are generated to facilitate linkage (for example, for women an entry may be made under her birth surname as well as current surname). The same superscript letter ($^{a,b,c..}$) is used to link information contained in the organizations (if changed), years, number of records, the main investigators, project coordination and project number fields for a particular update of the study.

Main investigator(s)

This is generally the name of the individual(s) and their organization that were identified as requesting the project at Statistics Canada. The same superscript letter ($^{a,b,c..}$) is used to link information contained in the organizations (if changed), years, number of records, the main investigators, project coordination and project number fields for a particular update of the study.

Project coordination

This is the name of the individual(s) that coordinated the project work within Statistics Canada at the time of the project. The same superscript letter ($^{a,b,c..}$) is used to link information contained in the organizations (if changed), years, number of records, the main investigators, project coordination and project number fields for a particular update of the study.

Project number(s)

This is the project number assigned to the project by Statistics Canada. The same superscript letter ($^{a,b,c..}$) is used to link information contained in the organizations (if changed), years, number of records, the main investigators, project coordination and project number fields for a particular update of the study.

Publications

This provides references to publications relating to the project

Project

This is a standard name used for the project. The name usually includes the name of the data base being used (e.g. mortality, cancer and/or birth where appropriate).
listed by publication year.

Project	**Alberta Cancer Registry Death Clearance**
Theme	Cancer – Death Clearance – Alberta
Organization(s)	Alberta Cancer Board
Description of project	The purpose of this pilot study was to develop the methodology of linking the Canadian Mortality Data Base to Cancer Registry records and to use the results of the linkage to assess various factors in cancer survival.
Years	Death years: 1953–1981
Number of records or individuals for the cohort	178,856 registered patients (both sexes). There were 98,749 patients with malignancies and the remainder were benign cases.
Main investigator(s)	Dr. G. Hill, Alberta Cancer Board
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-012
Publications	Smith ME, Newcombe HB, Dewar R. *Proposed Procedures for the Alberta Cancer Registry Death Clearance.* Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1983. Report No.: OEHRS–1. Smith ME, Newcombe HB, Dewar R. *The Use of Diagnosis in Cancer Registry Death Clearance.* Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section. 1983. Report No.: OEHRS–2. Smith ME, Newcombe HB, Dewar R. *Future Linkages Involving Cancer Records and Death Clearance, Plus Detailed Recommendations for Data Collection in the Future.* Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1983. Report No.: OEHRS–3. Smith ME, Newcombe HB, Dewar R. Automated nationwide death clearance of provincial cancer registry files. In: *Section on Survey Research Methods: Proceedings of the American Statistical Association*; 1983 August 15-18; Toronto. Alexandria, Virginia: American Statistical Association; 1983. p. 300-305. Mao Y, Semenciw R, Morrison H, Koch M, Hill G, Fair M, Wigle D. Survival rates among patients with cancer in Alberta in 1974-78. *Canadian Medical Association Journal* 1988; 138(12): 1107-1113.

Project **Alberta Cancer Registry Death Clearance**

Fair ME, Newcombe HB. *Internal Linkages of the Alberta Cancer Registry.* Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1989. Report No.: OEHRS–5.

Project	**Infant Death and Birth Linkage for Canada**
Theme	Infant Mortality – Canada
Organization(s)	Statistics Canada
Description of project	The purpose of this study was to provide information on risk factors for infant deaths and perinatal mortality in Canada. An attempt was made to identify all infant deaths in Canada for the years 1978 to 1980 and to match each infant death record with the appropriate birth record. The resulting linked file was used to evaluate cause of death and mortality rates in terms of birth weight and gestational age of the infant plus maternal age and marital status of the mother, etc.
Years	Death years: 1978–1980 Birth years: 1978–1979
Number of records or individuals for the cohort	8,400 infant deaths (both sexes)
Main investigator(s)	John Silins, Health Statistics Division. Statistics Canada
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1986-006
Publications	Silins J, Semenciw R, Morrison H, Lindsay J, Sherman G, Mao Y, Wigle D. Risk factors for perinatal mortality in Canada. *Canadian Medical Association Journal* 1985; 133(12): 1214-1219. Semenciw RM, Morrison HI, Silins J, Sherman GJ, Mao Y, Wigle DT. Risk factors for post neonatal mortality: results from a record linkage study. *International Journal of Epidemiology* 1986; 15(3): 369-372.

Project	**Nutrition Canada Survey Mortality and Cancer Incidence Study**
Theme	Survey – Nutrition Canada Survey
Organization(s)	Health Canada Statistics Canada
Description of project	The purpose of this study was to examine Canadian nutritional risks and/or benefits prospectively and the relationship of mortality rates in relation to a variety of predisposing factors. Linkage to the cancer incidence file gave earlier risk estimates for cancers that do not result in death.
Years	Death years: 1970–1977[a] 1978–1981[b] 1982–1985[c] 1986–1993[d] Cancer years: 1970–1986[c] 1969–1993[d]
Number of records or individuals for the cohort	The complete file has 20,147 records for 19,587 persons, including volunteers and all records. The analysis file (excluding volunteers) has 13,641 records relating to 13,262 persons.
Main investigator(s)	Dr. D. Wigle,[a] Health and Welfare Canada Dr. John W. Davies,[b] Health and Welfare Canada Dr. Y. Mao,[c] Health and Welfare Canada Dr. H. Morrison,[d] Health Canada
Project coordination	Martha Fair,[a,b] Mary Werner[c] and Maureen Carpenter,[d] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-006;[a] 1987-004;[b] 1991-005;[c] 1996-014[d]
Publications	Johansen H, Semenciw R, Morrison H, Mao Y, Verdier P, Smith ME, Wigle DT. Important risk factors for death in adults: a 10 year follow-up of the Nutrition Canada survey cohort. *Canadian Medical Association Journal* 1987; 136(8): 823-828. Semenciw RM, Morrison HI, Mao Y, Johansen H, Davies JW, Wigle DT. Major risk factors for cardiovascular disease mortality in adults: results from the Nutrition Canada Survey cohort. *International Journal of Epidemiology* 1988; 17(2): 317-324. Davies JW, Semenciw RM, Mao Y. Cardiovascular disease mortality trends and related risk factors in Canada. *The Canadian Journal of Cardiology* 1988; 4 (Suppl A): 16A-20A.

Project **Nutrition Canada Survey Mortality and Cancer Incidence Study**

Morrison HI, Semenciw RM, Mao Y, Wigle DT. Serum iron and risk of fatal acute myocardial infarction. *Epidemiology* 1994; 5(2): 243-246.

Morrison HI, Schaubel D, Desmeules M, Wigle DT. Serum folate and risk of coronary heart disease. *Journal of the American Medical Association* 1996; 275(24): 1893-1896.

Morrison HI, Ellison LF, Taylor GW. Periodontal disease and risk of coronary heart and cerebrovascular disease. *Journal of Cardiovascular Risk* 1999; 6(1): 7-11.

Ellison LF. Tea and other beverage consumption and prostate cancer risk: a Canadian retrospective cohort study. *European Journal of Cancer Prevention* 2000; 9(2): 120-130.

Ellison LF, Morrison HI. Low serum cholesterol concentration and risk of suicide. *Epidemiology* 2001; 12(2): 168-172.

Project	**Canada Health Survey Mortality Study**
Theme	Survey – Canada Health Survey
Organization(s)	Health and Welfare Canada Statistics Canada
Description of project	The purpose of this study was to investigate the mortality and cancer experience of Canada Health Survey participants. It involved linking information collected between May 1978 and March 1979 as part of the Canada Health Survey to death and cancer records.
Years	Death years: 1978–1985[a] 1986–1989[b] 1978–1989[c]
Number of records or individuals for the cohort	Full file including pre-survey persons - 34,405 records or 34,183 persons (both sexes) Excluding pre-survey persons - 31,784 records or 31,668 persons.
Main investigator(s)	Dr. John W. Davies,[a] Health and Welfare Canada Dr. Yang Mao,[b] Health and Welfare Canada Dr. Michael Wolfson,[c] Statistics Canada
Project coordination	Martha Fair[a] and Mary Werner,[b,c] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-009;[a] 1991-007;[b] 1991-010[c]
Publications	Wigle DT, Arraiz G, Mao Y. Mortality follow-up study of the Canada Health Survey cohort. In: Carpenter M and Fair ME, editors. *Proceedings of the Record Linkage Sessions and Workshop: Canadian Epidemiology Research Conference*; 1989 August 30-31; Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1990. p. 19-28. Arraiz GA, Wigle DT, Mao Y. Risk assessment of physical activity and physical fitness in the Canada Health Survey mortality follow-up study. *Journal of Clinical Epidemiology* 1992; 45(4): 419-428.

Project	**Atlantic Fishermen Mortality Study**
Theme	Occupation – Fishermen
Organization(s)	Health and Welfare Canada Statistics Canada
Description of project	The purpose of this study was to investigate the causes of death and evaluate the health effects of fishing in different levels of water pollution. The cohort was commercial fishermen who were licensed by the Canadian Department of Fisheries in Prince Edward Island, New Brunswick, and Nova Scotia.
Years	Death years: 1975–1983
Number of records or individuals for the cohort	About 33,000 records **-** 31,415 commercial fishermen (men) registered with the Department of Fisheries and Oceans in Nova Scotia, New Brunswick and Prince Edward Island during 1975 to 1983.
Main investigator(s)	Dr. I. Neutel, Health and Welfare Canada
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-004
Publications	Neutel CI. Mortality in commercial fishermen of Atlantic Canada. *Canadian Journal of Public Health* 1989; 80(5): 375-379. Hasselback P, Neutel I. The case of the missing bodies: A significant source of bias in the linking of a cohort of fisherman to the Canadian Mortality Data Base. In: Carpenter M and Fair ME, editors. *Proceedings of the Record Linkage Sessions and Workshop: Canadian Epidemiology Research Conference*; 1989 August 30-31; Ottawa. Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1990. p. 39-44. Hasselback P, Neutel CI. Risk for commercial fishing deaths in Canadian Atlantic provinces. *British Journal of Industrial Medicine* 1990; 47(7): 498-501. Neutel CI. Mortality in fishermen: an unusual age distribution. *British Journal of Industrial Medicine* 1990; 47(8): 528-532.

Project	**Canadian Farmers Mortality and Cancer Incidence Study**
Theme	Occupation – Farmers
Organization(s)	Health Canada Statistics Canada
Description of project	The purpose of this study was to investigate mortality and cancer incidences among farmers, particularly in relation to the use of pesticides and herbicides. Files of the 1971 Census of Population, 1971 Census of Agriculture, 1981 Central Farm Registrar, Canadian Mortality Data Base, and the Canadian Cancer Data Base were used for the study. This study looked at potential methods for using other existing data sources, including the 1984 National Farm Survey data and longitudinal census data.
Years	Death years: 1971–1985[a] 1971–1987[b] 1971–1995[c] Cancer years: 1970–1995[c] (excluding Québec in 1995)
Number of records or individuals for the cohort	69,000[a] - male farm operators in Saskatchewan 326,865[a,b,c] - male farm operators; 8,724 female farm operators.
Main investigator(s)	Dr. L. Ritter,[a,b] Health and Welfare Canada Dr. D. Morison,[b] Health and Welfare Canada Dr. Yang Mao,[c] Health and Welfare Canada
Project coordination	J. Silins,[a] Deborah Jordan-Simpson[b] and Martha Fair,[b,c] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-002;[a] 1989-017;[b] 1998-017[c] Related projects are also: 1989-005; 1991-003 and 1993-012
Publications	Fair ME, Jordan-Simpson DA. The Canadian Farmer Operator's Cohort Study – a methodological overview. In: Carpenter M and Fair ME, editors. *Proceedings of the Record Linkage Sessions and Workshop: Canadian Epidemiology Research Conference*; 1989 August 30-31; Ottawa. Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1990. p. 81-87. Jordan-Simpson DA, Fair ME, Poliquin C. Canadian farm operators study: methodology. *Health Reports* (Statistics Canada, Catalogue 82-003) 1990; 2(2): 141-155.

Project **Canadian Farmers Mortality and Cancer Incidence Study**

Wigle DT, Semenciw RM, Wilkins K, Reidel D, Ritter L, Morrison HI, Mao Y. Mortality study of Canadian male farm operators: non-Hodgkin's lymphoma mortality and agricultural practices in Saskatchewan. *Journal of the National Cancer Institute* 1990; 82(7): 575-582.

Ritter L, Wigle DT, Semenciw RM, Wilkins K, Riedel D, Mao Y. Mortality study of Canadian male farm operators: cancer mortality and agricultural practices in Saskatchewan. *La Medicina del Lavoro* 1990; 81(6): 499-505.

Dobson D, Buzdygan K. *Brief Notes on the Farm Study Bibliographic Data Base.* Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1991.

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Project **Canadian Farmers Mortality and Cancer Incidence Study**

Morrison HI, Krewski D, Riedel D, Bartlett S, Semenciw RM. Cancer risks from occupational exposure to agricultural chemicals in male Canadian farm operators. *Journal of Epidemiology and Biostatistics* 1997; 2: 105-120.

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Project	**Newfoundland Fluorspar Miners Mortality and Cancer Incidence Study: Radon-Progeny Exposure and Lung Cancer Risk Study**
Theme	Occupation – Miners – Fluorspar – Newfoundland
Organization(s)	Atomic Energy Control Board Health Canada
Description of project	The purpose of the project was to assess the potential occupational health risks that existed among Newfoundland fluorspar miners. Analysis of the data showed that the risk of dying of lung cancer is strongly associated with cumulative radon daughter exposure.
Years	Death years: 1933–1984[a] 1985–1989[b] 1990[c] 1933–2001[d] Cancer years: 1969–2001[d] (Lung cancers; Newfoundland only)
Number of records or individuals for the cohort	About 2,100 men[a,b,c] About 2,100 men[d]
Main investigator(s)	Dr. H. Stocker,[a] Atomic Energy Control Board Dr. D. Wigle,[a] Health and Welfare Canada Dr. V. Elaguppillai, [b,c] Atomic Energy Control Board Dr. Yang Mao,[b,c] Health Canada Dr. H. Morrison,[d] Health Canada Dr. P. J. Villeneuve,[d] EpiStream Consulting Inc.
Project coordination	Martha Fair,[a,d] Maureen Carpenter[b,c] and Lana Marjama,[d] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1986-018;[a] 1991-020;[b] 1993-003;[c] 2003-009[d]
Publications	De Villiers AJ, Windish JP. Lung cancer in a fluorspar mining community. I. Radiation, dust and mortality experience. *British Journal of Industrial Medicine* 1964; 21: 94-109. De Villiers AJ, Windish JP, Brent Fde N, Hollywood B, Walsh C, Fisher JW, Parsons WD. Mortality experience of the community and of the fluorspar mining employees at St. Lawrence, Newfoundland. *Occupational Health Review* 1971; 22(1): 1-15.

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Villeneuve PJ, Morrison HI. Coronary heart disease mortality among Newfoundland fluorspar miners. *Scandinavian Journal of Work, Environment and Health* 1997; 23(3): 221-226.

Morrison HI, Villeneuve PJ, Lubin JH, Schaubel DE. Radon-progeny exposure and lung cancer risk in a cohort of Newfoundland fluorspar miners. *Radiation Research* 1998; 150(1): 58-65.

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Committee on Health Risks of Exposure to Radon, Board on Radiation Effects Research, Commission on Life Sciences, National Research Council. *Health Effects of Exposure to Radon: BEIR VI*. Washington DC: National Academy Press; 1999.

Villeneuve P, Morrison H. *Radon Progeny Exposure and Lung Cancer: A Mortality Study of Newfoundland Fluorspar Miners 1950-2001.* Ottawa: Epistream Consulting Inc.; 2005. Sponsored by the Canadian Nuclear Safety Commission.

Project	**National Dose Registry Mortality and Cancer Incidence Study**
Theme	Occupation – Radiation – National Dose Registry
Organization(s)	Health Canada[a, b] Atomic Energy Control Board[a] Statistics Canada[a, b]
Description of project	The purpose of this study was to investigate the effects of low level radiation and to determine whether there were any increases in cause-specific cancer and mortality in workers exposed to radiation in the Canadian work force that participated in the National Dose Registry (NDR). This was a multi-year project. The first step was to internally link the National Dose Registry master identification file to reduce the file from 450,000 records to about 300,000 individuals. The next step was to link to the Canadian Mortality Data Base (CMDB) and to add the NDR dose information. A second project updated the NDR cohort and exposure files and linked the updated cohort file with the CMDB and the Canadian Cancer Data Base (CCDB). These data are being used in an international study of nuclear industry workers.
Years	Death years: 1950–1987[a] 1950–1994[b] Cancer years: 1969–1988[b]
Number of records or individuals for the cohort	About 300,000 workers (both sexes)[a] About 500,000 workers (both sexes)[b] For the mortality analysis, the cohort consisted of 206,620 individuals monitored for radiation exposure between 1951 and 1983 with mortality follow-up through December 31, 1987.[a] For the cancer incidence analysis, 191,333 individuals were extracted from 1969 to1988 linkages.[b]
Main investigator(s)	Dr. P. Ashmore,[a,b] Department of Health and Welfare K.P. Ho,[a] Atomic Energy Control Board (Contract funding)
Project coordination	E. Coppock,[a] Martha Fair[b] and Dores Zuccarini,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-010;[a] 1993-011[b]
Publications	Newcombe HB. Design and future uses of national dose registers for regulatory control and epidemiology. *Health Physics* 1980; 39(5): 783-796.

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Ashmore JP, Krewski D, Zielinski JM. Protocol for a cohort study of occupational radiation exposure based on National Dose Registry of Canada. *European Journal of Cancer* 1997; 33 (Suppl): S10-S21.

Fair ME. Record linkage in the National Dose Registry of Canada. *European Journal of Cancer* 1997; 33 (Suppl): S37-S43.

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Ashmore JP, Krewski D, Zielinski JM, Jiang H, Semenciw R, Band PR. First analysis of mortality and occupational radiation exposure based on the National Dose Registry of Canada. *American Journal of Epidemiology* 1998; 148(6): 564-574.

United Nations Scientific Committee on the Effects of Atomic Radiation. *Sources and Effects of Ionizing Radiation: UNSCEAR 2000 Report to the General Assembly, with Scientific Annexes. Volume II. Effects*. New York: United Nations; 2000.

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Zablotska LB, Ashmore JP, Howe GR. Analysis of mortality among Canadian nuclear power industry workers after chronic low-dose exposure to ionizing radiation. *Radiation Research* 2004; 161(6): 633-641.

Zielinski JM, Garner MJ, Krewski D, Ashmore JP, Band PR, Fair ME, Jiang H, Létourneau EG, Semenciw R, Sont WN. Decreases in occupational exposure to ionizing radiation among Canadian dental workers. *Journal of the Canadian Dental Association* 2005; 71(1): 29-33.

Project	**Atomic Energy Control Board Alive Follow-up Study**
Theme	Methodology – Alive Follow-Up – Atomic Energy Control Board – AECB Report
Organization(s)	Atomic Energy Control Board Statistics Canada
Description of project	The purpose of this study was to investigate and develop methods to do an "alive" follow-up of cohort files to complement death searches and to test the procedures using the Ontario Miner's file that had already been linked to deaths from 1955 to 1977. The procedures tested and developed a way to distinguish between those cohort members who were "confirmed" alive at a given time, and those who were "lost to follow-up". A sample of 30,000 records from the Ontario Miners file with valid social insurance numbers available was used for the test. This sample cohort was linked to 27 million summary tax data for the years 1977 and 1978. The procedures developed improved the quality of the death linkages, increased the accuracy of analytical results, and reduced the cost and labour of resolving doubtful death linkages.
Years	Death years: 1955–1977
Number of records or individuals for the cohort	About 30,000 men
Main investigator(s)	Dr. H. Stocker, Atomic Energy Control Board
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1988-R011 for preparation of the report. See 1987-003 and 1990-002 regarding the Ontario miners study linkages.
Publications	Fair ME, Newcombe HB, Lalonde P, Poliquin C. *"Alive" Searches as Complementing Death Searches in the Epidemiological Follow-up of Ontario Miners*. Ottawa: Atomic Energy Control Board; 1988. Report No.: INFO–0266.

Project	**Atomic Energy Control Board Social Insurance Number Evaluation Study**
Theme	Methodology – Social Insurance Number Evaluation Study – Atomic Energy Control Board – AECB Report
Organization(s)	Atomic Energy Control Board Statistics Canada
Description of project	The purpose of the project was to evaluate the use of the social insurance number index to facilitate death searches pertaining to Ontario Miners. The results indicated a substantial degree of improvement in the completeness and accuracy of the death searches when social insurance number identifiers were employed.
Years	Death years: 1964–1977
Number of records or individuals for the cohort	About 30,000 men
Main investigator(s)	Dr. H. Stocker, Atomic Energy Control Board
Project coordination	Martha Fair and Maureen Carpenter, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1988-R012 for the preparation of the report. See 1987-003 and 1990-002 for the Ontario miners study linkages.
Publications	Fair ME, Newcombe HB, Lalonde P. *Improved Mortality Searches for Ontario Miners using Social Insurance Index Identifier*s. Ottawa: Atomic Energy Control Board; 1988. Report No.: INFO–0264.

Project	**Data Collection Procedures and a Standard Identity Summary Questionnaire for Occupational and Medical Follow-up Studies**
Theme	Methodology – Health Record Keeping Procedures – Data Collection – Questionnaire – Atomic Energy Control Board – AECB Report
Organization(s)	Atomic Energy Control Board Statistics Canada
Description of project	The purpose of this study was to develop and market a recommended standard identity summary questionnaire and accompanying documentation for keeping computerized health records by industry and agencies within Canada to improve long term health monitoring and epidemiological follow-up studies. A standard questionnaire and data collection package were developed and tested.
Years	
Number of records or individuals for the cohort	
Main investigator(s)	K.P. Ho, Atomic Energy Control Board
Project coordination	Martha Fair and Maureen Carpenter, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1990-R013 for preparation of the report.
Publications	Carpenter M, Fair ME, Lalonde P, Scott T. *Standards for Collection of Identifying Information for Health Record Keeping.* Ottawa: Atomic Energy Control Board; 1988. Report No.: INFO–0289. Statistics Canada. *Data Collection Package.* Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1990. Report No.: OEHRS–7(E). Carpenter M, Fair ME. A standard data collection package for medical follow-up studies. *Health Reports* (Statistics Canada, Catalogue 82-003) 1990; 2(2): 157-173. Carpenter M, Fair ME. A data collection package for occupational health studies. *Medical Post Liaison* – Newsletter of the Occupational Medical Association of Canada, 1990 July; 1-9.

Project	**Data Collection Software Developed for a Standard Identity Summary Questionnaire for Occupational and Medical Follow-up Studies**
Theme	Methodology – Health Record Keeping Procedures – Data Collection – Questionnaire – Software – Report
Organization(s)	Statistics Canada
Description of project	The purpose of this study was to develop and produce a French version of the standard identity questionnaire and the data collection package. Software was also developed for entering the data in both English and French using a personal computer. The aim was to improve computerized health records created by industries and agencies within Canada that may be used for long term health monitoring and epidemiological follow-up studies.
Years	
Number of records or individuals for the cohort	
Main investigator(s)	K.P. Ho, Atomic Energy Control Board
Project coordination	Martha Fair and Maureen Carpenter, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1990-R013 for preparation of the report.
Publications	Statistique Canada, *Trousse sur la collecte des données,* Ottawa, Statistique Canada, Division de la statistique de la santé, Section de la recherche sur l'hygiène du travail et de l'environnement, 1990, numéro de publication, OEHRS–7(F). Statistics Canada. *Data Collection Package/PC Installation Guide and User's Manual. Version 1.5*. Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1990. Report No.: OEHRS–8(E). Statistique Canada, *Trousse sur la collecte des données (DCP/CP). Ordinateurs personnels IBM ou compatibles Version 1.5*, Ottawa, Statistique Canada, Division de la statistique de la santé, Section de la recherche sur l'hygiène du travail et de l'environnement, 1990, numéro de publication OEHRS–8(F).

Project	**Name Encoding Schemes and Methods Used to Improve the Accuracy of Record Linkage**
Theme	Methodology – Name Encoding – Atomic Energy Control Board – AECB Report
Organization(s)	Atomic Energy Control Board Statistics Canada
Description of project	The purpose of the project was to modify and improve the New York State Identification and Intelligence System (NYSIIS) surname encoding system used at Statistics Canada, to develop routines for matching forenames, and to evaluate the advantages of using alternative sequencing items for pocket identifiers. The overall aim was to improve the accuracy of matching and linking records for epidemiological studies.
Years	Death years: 1970–1979
Number of records or individuals for the cohort	Subset of the Mortality Data Base
Main investigator(s)	K.P. Ho, Atomic Energy Control Board
Project coordination	Maureen Carpenter, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1991-R015 for preparation of the report.
Publications	Lalonde P, Fair ME, Carpenter M, Scott T. *Name Encoding Schemes.* Ottawa: Atomic Energy Control Board; 1992. Report No.: INFO–0418.

Project	**Morbidity Feasibility Study**
Theme	Methodology – Morbidity – Atomic Energy Control Board – AECB Report
Organization(s)	Atomic Energy Control Board Statistics Canada
Description of project	The purpose of the project was to determine the feasibility of using morbidity data in Canada for epidemiological studies to complement and supplement mortality data available through the Canadian Mortality Data Base. A report was prepared for Atomic Energy Control Board.
Years	
Number of records or individuals for the cohort	1988-R016 for preparation of the report.
Main investigator(s)	K.P. Ho, Atomic Energy Control Board
Project coordination	Maureen Carpenter, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1988-R016 for preparation of the report.
Publications	Carpenter M. *Morbidity Follow-up Feasibility Study.* Ottawa: Atomic Energy Control Board; 1988. Report No.: INFO–0269.

Project	**Atomic Energy of Canada Mortality Study**
Theme	Occupation – Radiation – Atomic Energy of Canada Workers
Organization(s)	Atomic Energy of Canada Limited
Description of project	The purpose of this study was to investigate the long-term health effects of low level radiation on human populations. The study investigated the relationship between causes of death and occupational exposure to ionizing radiation. The mortality linkages were completed at Statistics Canada and the analysis of the results carried out by the National Cancer Institute of Canada.
Years	Death years: 1950–1981[a] 1950–1985[b]
Number of records or individuals for the cohort	13,986 (both sexes)[a] - 10,357 men; 3,629 women 14,193(both sexes)[b] - 10,526 men; 3,667 women
Main investigator(s)	Dr. D. Myers,[a] Atomic Energy of Canada Limited Dr. J. Weeks,[b] Atomic Energy of Canada Limited
Project coordination	Martha Fair[a,b] and Maureen Carpenter,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-017;[a] 1986-019[b]
Publications	Newcombe HB. *A Plan for a Continuing Follow-up of Persons Exposed to Radiation in the Canadian Nuclear Power Industry.* Chalk River, Ontario: Chalk River Nuclear Laboratories; 1976. Report No.: AECL–5538. Weeks JL. *A Registry for the Study of the Health of Radiation Workers Employed by Atomic Energy of Canada Limited*. Pinawa, Manitoba: Whiteshell Nuclear Research Establishment; 1978. Report No.: AECL–6194. Weeks JL. *A Study of the Health of the Employees of Atomic Energy of Canada Limited. I. Setting up the Study.* Pinawa, Manitoba: Whiteshell Nuclear Research Establishment; 1981. Report No.: AECL –6813. Werner MM, Myers DK, Morrison DP. *Follow-up of CRNL Employees Involved in the NRX Reactor Clean-up.* Chalk River, Ontario: Chalk River Nuclear Laboratories; 1982. Report No.: AECL–7760. Werner MM, Myers DK, Morrison DP. *Follow-up of AECL Employees Involved in the Decontamination of NRU in 1958.* Chalk River, Ontario: Chalk River Nuclear Laboratories; 1982. Report No.: AECL–7901.

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Myers DK, Werner MM, Cowper G, Morrison DP, Holford RM. Smith ME. Follow-up of the past employees of Chalk River Nuclear Laboratories. In: Society for Radiological Protection. *Proceedings of the 3rd International Symposium of the Society for Radiological Protection (UK), Vol. I*, 1982 June 6-11; Inverness, Scotland. Great Britain: Society for Radiological Protection; 1982. p. 332-340.

Werner MM, Myers DK, Morrison DP. *Updated Follow-up of Long-term Chalk River Employees.* Chalk River, Ontario: Chalk River Nuclear Laboratories; 1983. Report No.: AECL–8183.

Weeks JL, Johnston LH. *A Study of the Health of the Employees of Atomic Energy of Canada Limited. II. Implementing the Study.* Pinawa, Manitoba: Whiteshell Nuclear Research Establishment; 1984. Report No.: AECL–7828.

Johnston LH, Werner MM. *A Study of the Health of the Employees of Atomic Energy of Canada Limited. III. Upgrading the Data Base.* Pinawa, Manitoba: Whiteshell Nuclear Research Establishment; 1987. Report No. AECL–8408.

Howe GR, Weeks JL, Miller AB, Chiarelli AM, Etazadi-Amoli J. *A Study of the Health of the Employees of Atomic Energy of Canada Limited. IV. Analysis of Mortality During the Period 1950-1981.* Pinawa, Manitoba: Whiteshell Nuclear Research Establishment; 1987. Report No.: AECL–9442.

Howe GR, Chiarelli AM, Lindsay JP. Components and modifiers of the healthy worker effect: evidence from three occupational cohorts and implications for industrial compensation. *American Journal of Epidemiology* 1988; 128(6): 1364-1375.

Gribbin MA, Weeks JL, Howe GR. Cancer mortality (1956-1985) among male employees of Atomic Energy of Canada Limited with respect to occupational exposure to external low-linear-energy-transfer ionizing radiation. *Radiation Research* 1993; 133(3): 375-380.

Project	**Ontario Miners Study and Eldorado Nuclear Limited Study Internal Linkage**
Theme	Occupation – Miners – Uranium
Organization(s)	Ontario Workmen's Compensation Board Eldorado Nuclear Limited
Description of project	The purpose of this study was to derive more complete exposure histories for miners–especially for uranium miners–by bringing together all records relating to the same person that were in the Ontario miners cohort and in the Eldorado nuclear cohort.
Years	
Number of records or individuals for the cohort	43,000 men
Main investigator(s)	Dr. J. Abbatt, Eldorado Nuclear Limited
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-019
Publications	Newcombe HB, Lalonde P, Smith ME, Poliquin C, Strugnell A, Abbatt JD. *Computer Procedures for the Eldorado Nominal Roll Internal Links – ENL-INTERNAL-LINK Program Description*. Ottawa: Eldorado Nuclear Limited and Statistics Canada; 1983.

Project	**Eldorado Nuclear Uranium Workers Mortality and Cancer Incidence Study**
Theme	Occupation – Miners – Uranium – Eldorado
Organization(s)	Eldorado Resources Limited[a] Canadian Nuclear Safety Commission[b]
Description of project	The purpose of this study was to study the causes of death of uranium mining, milling and refinery workers. Of particular interest is the relationship between radon progeny exposure and cancer risk.
Years	Death years: 1950–1980[a] 1950–2000[b] Cancer years: 1969–2000
Number of records or individuals for the cohort	20,766 (both sexes)[a] - 19,233 men; 1,466 women; 19,855 (both sexes)[b] - 18,282 men; 1,573 women; 77 - not stated.
Main investigator(s)	Dr. J. Abbatt,[a] Eldorado Resources Limited R. Lane[b] Canadian Nuclear Safety Commission
Project coordination	Martha Fair[a] and Bryan Lafrance,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-020;[a] 2001-018[b]
Publications	Abbatt JD, Newcombe HB. Eldorado Nuclear retrospective epidemiology project: A retrospective study of uranium workers from miners' mills and refinery. In: Gomez M, editor. *Radiation Hazards in Mining: Control, Measurements and Medical Aspects. Proceedings of the International Conference;* 1981 October 4-9; Golden, Colorado. New York: Society of Mining Engineers of the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIMMPE); 1981. p. 369-371. Newcombe HB, Smith ME, Abbatt JD. *Linkage Procedures for the Eldorado Mortality Searches – ENL-LINK-2.* Ottawa: Eldorado Nuclear Limited and Statistics Canada; 1982. Abbatt JD, Hamilton TR, Weeks JL. Epidemiological studies in three corporations covering the Canadian nuclear fuel cycle. In: IAEA. *Biological Effects of Low-level Radiation.* Vienna: International Atomic Energy Agency; 1983. Report No.: IAEA–STI/PUB 646; p. 351-361.

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Eldorado Nuclear Uranium Workers Mortality and Cancer Incidence Study

Newcombe HB, Strugnell A, Smith ME, Lalonde P, Poliquin C. *Correcting for Correlated Disagreements of Identifying Information – ENL-LINK-2*. (Supplement No. 1) Ottawa: Eldorado Nuclear Limited and Statistics Canada; 1983.

Newcombe HB, Smith ME, Poliquin C, Lalonde P, Abbatt JD. *Final Computer Procedures for the Eldorado Mortality Searches ENL-LINK-2*. Ottawa: Eldorado Nuclear Limited and Statistics Canada; 1983.

Newcombe HB, Lalonde P, Smith ME, Poliquin C, Strugnell A, Abbatt JD. *Computer Procedures for the Eldorado Nominal Roll Internal Links – ENL-INTERNAL-LINK Program Description.* Ottawa: Eldorado Nuclear Limited and Statistics Canada; 1983.

Newcombe HB, Abbatt JD. *Probabilistic Record Linkage in Epidemiology - Principals Employed.* Ottawa: Eldorado Nuclear Limited; 1983.

Abbatt JD, Newcombe HB. Personal privacy concerns threaten epidemiology. *Community Medicine* 1983; 5: 321-326.

Newcombe HB, Smith ME, Howe GR, Mingay J, Strugnell A, Abbatt JD. Reliability of computerized versus manual death searches in a study of the health of Eldorado uranium workers. *Computers in Biology and Medicine* 1983; 13(3): 157-169.

Abbatt JD, Newcombe HB. *The Eldorado Epidemiology Project – Health Follow-up of Eldorado Uranium Miners.* Ottawa: Eldorado Resources Limited, 1985 Dec.

Nair RC, Abbatt JD, Howe GR, Newcombe HB, Frost SE. Mortality experience among workers in the uranium industry. In: Stocker H. editor. *Occupational Radiation Safety in Mining*: *Proceedings of the International Conference, Vol. 1*, Toronto: Canadian Nuclear Association; 1985. p. 354-364.

Howe GR, Nair RC, Newcombe HB, Miller AB, Abbatt JD. Lung Cancer mortality (1950-80) in relation to radon daughter exposure in a cohort of workers at Beaverlodge uranium mine. *Journal of the National Cancer Institute* 1986; 77(2): 357-362.

Howe GR, Nair RC, Newcombe HB, Miller AB, Burch JD, Abbatt JD. Lung cancer mortality (1950-80) in relation to radon daughter exposure in a cohort of workers at the Eldorado Port Radium uranium mine: possible modification of risk by exposure rate. *Journal of the National Cancer Institute* 1987; 79(6): 1255-1260.

Committee on Biological Effects of Ionizing Radiation (BEIR IV), Board on Radiation Effects Research, Commission on Life Sciences, National Research Council. *Health Effects of Radon and Other Internally Deposited Alpha-emitters BEIR IV*. Washington DC: National Academy Press; 1988.

Project

Eldorado Nuclear Uranium Workers Mortality and Cancer Incidence Study

L' Abbé KA, Howe GR, Burch JD, Miller AB, Abbatt J, Band P, Choi W, Du J, Feather J, Gallagher R, Hill G, Matthews V. Radon exposure, cigarette smoking and other mining experience in the Beaverlodge uranium miners cohort. *Health Physics* 1991; 60(4):489-495.

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Lubin JH, Boice JD Jr., Edling C, Hornung RW, Howe GR, Kunz E, Kusiak RA, Morrison HI, Radford EP, Samet JM, et al., Lung cancer in radon-exposed miners and estimation of risk from indoor exposure. *Journal of the National Cancer Institute* 1995; 87(11): 817-827.

Howe GR, Stager RH. Risk of lung cancer mortality after exposure to radon decay products in the Beaverlodge cohort based on revised exposure estimates. *Radiation Research* 1996; 46(1): 37-42.

Lubin JH, Tomasek L, Edling C, Hornung RW, Howe GR, Kunz E, Kusiak RA, Morrison HI, Radford EP, Samet JM, Tirmarche M, Woodward A, Yao SX. Estimating lung cancer mortality from residential radon using data for low exposures of miners. *Radiation Research* 1997; 147(2): 126-134.

Committee on Health Risks of Exposure to Radon, Board on Radiation Effects Research, Commission on Life Sciences, National Research Council. *Health Effects of Exposure to Radon: BEIR VI*. Washington DC: National Academy Press; 1999.

Project	**Tuberculosis and Isoniazid Mortality and Cancer Incidence Study**
Theme	Cancer – Tuberculosis – Isoniazid
Organization(s)	University of Toronto
Description of project	The purpose of this study was to determine the relationship between the isoniazid treatment and cancer. The study identified 12,498 deaths and 793 cases of cancer, but no significant excess of any cancer sites suspected to be associated with isoniazid were found. This study used an early version of the national cancer file.
Years	Death years: 1950–1973 Cancer years: 1969–1973
Number of records or individuals for the cohort	64,037 (both sexes)
Main investigator(s)	Dr. Geoff Howe, National Cancer Institute of Canada, Epidemiology Unit, University of Toronto
Project coordination	Joan Lindsay, Health Statistics Division, Statistics Canada
Project number(s)	1900-021
Publications	Howe GR, Lindsay J, Coppock E, Miller AB. Isoniazid exposure in relation to cancer incidences and mortality in a cohort of tuberculosis patients. *International Journal of Epidemiology* 1979; 8(4): 305-312.

Project	**Canadian Labour Force 10% Sample Mortality and Cancer Incidence Study**
Theme	Occupation – Labour Force – Canada
Organization(s)	National Cancer Institute of Canada University of Toronto Statistics Canada
Description of project	The purpose of the study was to establish a monitoring system to detect associations between specific occupations and causes of cancer incidence and mortality. The data were used both to generate and test hypotheses concerning occupational exposures and increased risks of various cancers. The cancer linkage used an early version of the national cancer file.
Years	Death years: 1965–1973[a] 1965–1979[b] 1965–1991[c] Cancer years: 1969–1979[b]
Number of records or individuals for the cohort	700,000 (both sexes)
Main investigator(s)	Dr. Geoff Howe,[a,b] National Cancer Institute of Canada, Epidemiology Unit, University of Toronto Dr. Kristan Aronson,[c] Queen's University, Faculty of Medicine, Department of Community Health and Epidemiology.
Project coordination	Joan Lindsay,[a,b] Health Statistics Division, Statistics Canada Maureen Carpenter,[c] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-022;[a,b] 1993-014[c]
Publications	Newcombe HB. *A Method of Monitoring Nationally for Possible Delayed Effects of Various Occupational Environments.* Ottawa: Environmental Secretariat, National Research Council of Canada; 1974. Report No.: NRCC–13686. Howe GR, Lindsay J, Miller AB. Cancer incidence and mortality in relation to occupation in 700,000 members of the Canadian labour force. *Cancer Detection and Prevention* 1980; 3(2): 487-497. Wigle DT, Mao Y, Howe GR, Lindsay J. Comparison of occupation on survey and death records in Canada. *Canadian Journal of Public Health* 1982; 73(4): 242-247. Howe GR, Lindsay JP. A follow-up study of a ten-percent sample of the Canadian labour force: Cancer mortality in males, 1965-1973. *Journal of the National Cancer Institute* 1983; 70(1): 37-44.

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Canadian Labour Force 10% Sample Mortality and Cancer Incidence Study

Lindsay JP, Stavraky KM, Howe GR. The Canadian Labour Force Ten Percent Sample Study. Cancer mortality among men, 1965-1979. *Journal of Occupational Medicine* 1993; 35(4): 408-414.

Aronson KJ, Howe GR. Utility of surveillance system to detect associations between women and cancer among women in Canada, 1965-1991. *Journal of Occupational Medicine* 1994; 36(11): 1174-1179.

Aronson KJ, Howe GR, Carpenter M, Fair ME. Surveillance of potential associations between occupations and causes of death in Canada, 1965-91. *Occupational and Environmental Medicine* 1999; 56(4): 265-269.

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Aronson KJ, Howe GR, Carpenter M, Fair ME. *Occupational Surveillance in Canada: Cause-specific Mortality Among Workers, 1965-1991* (CD-ROM Cat. No.: 84-546-XCB 91001). Ottawa: Statistics Canada; 2000.

Weston TL, Aronson KJ, Howe GR, Nadon L. Cancer mortality among males in relation to exposures assessed through a job-exposure matrix. *International Journal of Occupational and Environmental Health* 2000; 6(3): 194-202.

Project	**Canadian National Railway Workers Mortality Study**
Theme	Occupation – Railway Workers
Organization(s)	National Cancer Institute of Canada
Description of project	The purpose was to examine cancer mortality in relation to diesel fumes and coal exposure in a cohort of retired railway workers.
Years	Death years: 1965–1977
Number of records or individuals for the cohort	43,826 men
Main investigator(s)	Dr. Geoff Howe, National Cancer Institute of Canada, Epidemiology Unit, University of Toronto
Project coordination	Joan Lindsay, Health Statistics Division, Statistics Canada
Project number(s)	1900-023
Publications	Howe GR, Fraser D, Lindsay J, Presnal B, Yu SZ. Cancer mortality (1965-77) in relation to diesel fumes and coal exposure in a cohort of retired railway workers. *Journal of the National Cancer Institute* 1983; 70(6): 1015-1019.

Project	**Canadian Tuberculosis Fluoroscopy Mortality and Cancer Incidence Study**
Theme	Cancer – Tuberculosis – Fluoroscopy
Organization(s)	National Cancer Institute of Canada Atomic Energy Control Board Statistics Canada
Description of project	The Canadian fluoroscopy study was a cohort study of tuberculosis patients first treated in Canadian institutions between 1930 and 1952. A substantial proportion of the cohort was exposed to various levels of low-LET ionizing radiation through the extensive use of fluoroscopy to monitor artificial pneumothorax amongst such patients. The analysis focused on the relationship between age at first exposure to radiation and development of breast cancer in women, and also examined the dose response between the amount of radiation received and the development of breast cancer. This project was also used to help develop and test a suitable national cancer incidence database for record linkage. It demonstrated the feasibility and utility of establishing and maintaining the Canadian Cancer Data Base (CCDB) in a format suitable for record linkage purposes. This was the first study to be linked to the CCDB, was demonstrated to be an invaluable resource for epidemiologic studies of cancer incidence risk.
Years	Death years: 1940–1980[a] 1940–1987[b] Cancer years: 1975–1983[b]
Number of records or individuals for the cohort	118,117 records relating to 92,891 persons[a] (both sexes) - 47,962 men; 44,929 women 123,283 records relating to 92,891 persons[b] (both sexes) - 47,962 men; 44,929 women (additional alternate records were generated for women.)
Main investigator(s)	Dr. G.R. Howe[a,b] and Dr. A.B. Miller,[a] National Cancer Institute of Canada, Epidemiology Unit, University of Toronto
Project coordination	Joan Lindsay,[a] Health Statistics Division, Statistics Canada Maureen Carpenter,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-024;[a] 1989-023[b]
Publications	Newcombe HB. *Cancer Following Multiple Fluoroscopies.* Chalk River, Ontario: Atomic Energy of Canada Limited, Chalk River Nuclear Laboratories; 1975. Report No.: AECL–5243.

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Canadian Tuberculosis Fluoroscopy Mortality and Cancer Incidence Study

Howe GR, Miller AB, Sherman GJ. Breast cancer mortality following fluoroscopic irradiation in a cohort of tuberculosis patients. *Cancer Detection and Prevention* 1982; 5(2): 175-178.

Miller AB, Howe GR, Sherman GJ, Lindsay JP, Yaffe MJ, Dinner PJ, Risch HA, Preston DL. Mortality from breast cancer after irradiation during fluoroscopic examinations in patients being treated for tuberculosis. *New England Journal of Medicine* 1989; 321(19): 1285-1289.

Howe GR. *Breast Cancer Incidence and Mortality in Canadian Fluoroscopy Study: The Establishment of Computerized Record Linkage Facilities for the National Cancer Incidence Reporting System (1975-1983)*. Ottawa: Atomic Energy Control Board; 1993 Mar. Report No.: INFO–0440.

Howe GR. Lung cancer mortality between 1950 and 1987 after exposure to fractionated moderate-dose-rate ionizing radiation in the Canadian fluoroscopy cohort study and a comparison with lung cancer mortality in the atomic bomb survivors study. *Radiation Research* 1995; 142(3): 295-304.

Howe GR, McLaughlin J. Breast cancer mortality between 1950 and 1987 after exposure to fractionated moderate-dose-rate ionizing radiation in the Canadian fluoroscopy cohort study and a comparison with breast cancer mortality in the atomic bomb survivors study. *Radiation Research* 1996; 145(6): 694-707.

Project	**Ontario Miners and Asbestos Cement Workers Mortality Study**
Theme	Occupation – Miners – Asbestos – Cement Factory – Ontario
Organization(s)	Ontario Ministry of Labour Ontario Workers' Compensation Board Atomic Energy Control Board
Description of project	The purpose of this study was to evaluate the health risks associated with the mining industry and workers from a specific asbestos cement factory. An extension to earlier studies investigated occupational hazards of miners and other high-risk groups, plus updated and evaluated the accuracy of the mortality searches. Part of this study was used to develop methods to improve the accuracy and completeness of the death searches.
Years	Death years: 1955–1977[a,c] 1978–1981[b] (uranium miners only) 1950–1986[d]
Number of records or individuals for the cohort	56,622 men[a] - 30,000 men used for the evaluation study[c] 16, 842 men (uranium miners only)[b] 90,774 (both sexes)[d] - 89,243 men; 1,201 women; 330 not stated.
Main investigator(s)	Dr. J. Muller,[a] Ontario Ministry of Labour; Dr. Jane F. Gentleman,[a] University of Waterloo; Wilf Wheeler,[a] George Suranyi,[a] and Bob Holden,[b] Ontario Workers' Compensation Board Dr. V. Elaguppillai,[c] Atomic Energy Control Board R. Kusiak,[d] Ontario Ministry of Labour
Project coordination	Martha Fair[a,b,c] and Pierre Lalonde,[d] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-027;[a] 1985-008;[b] 1987-003;[c] 1990-002[d]
Publications	Muller J, Wheeler WC. Causes of death in Ontario uranium miners. In: *Radiation Protection in Mining and Milling of Uranium and Thorium: Proceedings of an International Symposium*; 1974 September 8-11; Bordeaux, France. Organized by the International Labour Office and the French Atomic Energy Commission in cooperation with the World Health Organization and the International Atomic Energy Commission. Geneva: International Labour Office; 1976. p. 29-42. Ham JM. *Report of the Royal Commission on the Health and Safety of Workers in Mines.* Toronto: Ministry of the Attorney General, Province of Ontario; 1976.

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Ontario Miners and Asbestos Cement Workers Mortality Study

Muller J, Wheeler WC, Gentleman JF, Suranyi G, Kusiak R, Smith ME. The Ontario miners' mortality study: A general outline progress report. In: Gomez M, editor. *Radiation Hazards in Mining: Control, Measurements and Medical Aspects*. *Proceedings of the International Conference;* 1981 October 4-9; Golden, Colorado. New York: Society of Mining Engineers of the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIMMPE); 1981. p. 359-362.

McCracken WJ. Radon gas, bronchogenic carcinoma – Ontario experience. In: Gomez M, editor. *Radiation Hazards in Mining: Control, Measurements and Medical Aspects*. *Proceedings of the International Conference;* 1981 October 4-9; Golden, Colorado. New York: Society of Mining Engineers of the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIMMPE); 1981. p. 819-822.

Finkelstein MM. Mortality among long-term employees of an Ontario asbestos-cement factory. *British Journal of Industrial Medicine* 1983; 40(2): 138-140.

Muller J, Wheeler WC, Gentleman JF, Suranyi G, Kusiak RA. *Study of Mortality of Ontario Miners, 1955-1977. Part 1.* Toronto: Ontario Ministry of Labour; 1983 May.

Dupré J, Mustard JF, Uffen RJ. *Report of the Royal Commission on Matters of Health and Safety Arising from the Use of Asbestos in Ontario* Vol. 1-3. Toronto: Ministry of the Attorney General, Province of Ontario; 1984.

Finkelstein MM. Mortality among employees of an Ontario asbestos-cement factory. *American Review of Respiratory Disease* 1984; 129(5): 754-761.

Muller J, Wheeler WC, Gentleman JF, Suranyi G, Kusiak R. Study of mortality of Ontario miners. In: Stocker H, editor. *Occupational Radiation Safety in Mining: Proceedings of the International Conference, Vol. 1*; 1985 October 14-18. Toronto: Canadian Nuclear Association; 1985. p. 335-343.

Muller J, Kusiak RA, Suranyi G, Ritchie AC. *Study of Mortality of Ontario Gold Miners, 1955-1977. Part II.* Toronto: Ontario Ministry of Labour; 1986 July.

Muller J, Kusiak RA, Suranyi G, Ritchie AC. *Study of Mortality of Ontario Gold Miners, 1955-1977. Part II. Addendum.* Toronto: Ontario Ministry of Labour; 1987 Feb.

Industrial Disease Standards Panel. *Report to the Workers' Compensation Board on the Ontario Gold Mining Industry*. Toronto: Industrial Disease Standards Panel; 1987 April. IDSP Report No.: 1.

Muller J, Kusiak RA. *Modifying Factors in Lung Cancer Risk of Ontario Uranium Miners, 1955-1981*. Toronto: Health Studies Service, Ontario Ministry of Labour, 1987 Oct.

Project

Ontario Miners and Asbestos Cement Workers Mortality Study

Miller AB, Scarpelli D, Weiss N. Report of the scientific panel on "Mortality from Cancer Among Ontario Gold Miners, 1955-1977". Appendix C in: *Report to the Workers' Compensation Board on the Ontario Gold Mining Industry.* Toronto: Industrial Disease Standards Panel; 1987 April. IDSP Report No.: 1.

Fair ME, Newcombe HB, Lalonde P, Poliquin C**.** *"Alive" Searches as Complementing Death Searches in the Epidemiological Follow-up of Ontario Miners*. Ottawa: Atomic Energy Control Board; 1988. Report No.: INFO–0266.

Fair ME, Newcombe HB, Lalonde P. *Improved Mortality Searches for Ontario Miners using Social Insurance Number Index Identifiers.* Ottawa: Atomic Energy Control Board; 1988. Report No.: INFO–0264.

Committee on Biological Effects of Ionizing Radiation (BEIR IV), Board on Radiation Effects Research, Commission on Life Sciences, National Research Council. *Health Effects of Radon and Other Internally Deposited Alpha-emitters BEIR IV*. Washington DC: National Academy Press; 1988.

Industrial Disease Standards Panel. *Report to the Workers' Compensation Board on the Ontario uranium mining industry*. Toronto: Industrial Disease Standards Panel; 1989 Feb. IDSP Report No.: 6.

Kusiak RA, Springer J, Ritchie AC, Muller J. Carcinoma of the lung in Ontario gold miners: possible aetiological factors. *British Journal of Industrial Medicine* 1991; 48(12); 808-817.

Kusiak RA, Springer J, Ritchie AC, Muller J. Lung cancer mortality in Ontario gold miners. *Chronic Diseases in Canada* (Suppl) 1992 Nov-Dec; 13(1): S23-S26.

Kusiak RA, Ritchie AC, Springer J, Muller J. Mortality from stomach cancer in Ontario miners. *British Journal of Industrial Medicine* 1993; 50(2); 117-126.

Kusiak RA, Ritchie AC, Muller J, Springer J. Mortality from lung cancer in Ontario uranium miners. *British Journal of Industrial Medicine* 1993; 50(10): 920-928.

Industrial Disease Standards Panel (Occupational Disease Panel). *Report to the Workers' Compensation Board on Lung Cancer in the Hardrock Mining Industry*. Toronto: Industrial Disease Standards Panel; 1994 Mar. IDSP Report No.: 12.

Lubin JH, Boice JD, Edling C, Hornung RW, Howe GR, Kunz E, et al. *Radon and Lung Cancer Risk: A Joint Analysis of 11 Underground Miners Studies*. Washington DC: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health; 1994. NIH Pub No.: 94-3644.

Project

Ontario Miners and Asbestos Cement Workers Mortality Study

Darby SC, Whitley E, Howe GR, Hutchings SJ, Kusiak RA, Lubin JH, Morrison HI, Tirmarche M, Tomasek L, Radford EP, et al. Radon and cancers other than lung cancer in underground miners: a collaborative analysis of 11 studies. *Journal of the National Cancer Institute* 1995; 87(5): 378-384.

Industrial Disease Standards Panel. *Addendum to IDSP Report No. 12: Report to the Workers' Compensation Board on Lung Cancer in Hardrock Mining Industry.* Toronto: Industrial Disease Standards Panel; 1996 Sept. IDSP Report No.: 12A.

Lubin JH, Tomasek L, Edling C, Hornung RW, Howe GR, Kunz E, Kusiak RA, Morrison HI, Radford EP, Samet JM, Tirmarche M, Woodward A, Yao SZ. Estimating lung cancer mortality from residential radon using data for low exposures of miners. *Radiation Research* 1997; 147(2): 126-134.

Kusiak R, Ashmore P, Baris D. Do occupational exposures in nuclear refineries contribute to mortality from brain cancer? *Occupational and Environmental Medicine* 1997; 54(2):142-143.

Committee on Health Risks of Exposure to Radon, Board on Radiation Effects Research, Commission on Life Sciences, National Research Council. *Health Effects of Exposure to Radon: BEIR VI*. Washington DC, National Academy Press, 1999.

Project	**British Columbia Breast Cancer Mortality Study**
Theme	Cancer – Breast – British Columbia
Organization(s)	University of Western Ontario
Description of project	The purpose of this study was to investigate the age at which women had their first full term birth and the risk of breast cancer. A cohort of 1946-73 British Columbia first births was linked to the death file for 1950-1980.
Years	Death years: 1950–1980
Number of records or individuals for the cohort	352,000 women
Main investigator(s)	Dr. K. Stavraky, University of Western Ontario
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-030
Publications	

Project	**Bendix – Stanford Research Institute Mortality Study**
Theme	Occupation – Asbestos – Bendix
Organization(s)	Stanford Research Institute Ontario Ministry of Labour
Description of project	The study investigated the mortality of asbestos workers. Analysis was carried out using a computer program developed by Dr. Monson of Harvard University.
Years	Death years: 1950–1979
Number of records or individuals for the cohort	1,700 (both sexes)
Main investigator(s)	Dr. S. Kaplan, Stanford Research Institute Dr. M. Finkelstein, Ontario Ministry of Labour
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-031
Publications	Finkelstein MM. Mortality rates among employees potentially exposed to chrysotile asbestos at two automotive parts factories. *Canadian Medical Association Journal* 1989; 141(2): 125-130.

Project	**Inco Ontario – Falconbridge Nickel Workers Internal Linkage**
Theme	Occupation – Miners – Nickel
Organization(s)	McMaster University
Description of project	The purpose of this project was to create more complete exposure histories for nickel workers working in Ontario at both Inco and Falconbridge.
Years	
Number of records or individuals for the cohort	62,000 men at Inco 11,500 men at Falconbridge
Main investigator(s)	R. Roberts and Dr. H. Shannon, Occupational Health Program, McMaster University
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-032
Publications	

Project	**Falconbridge Ontario Nickel Workers Mortality Study**
Theme	Occupation – Miners – Nickel – Falconbridge
Organization(s)	McMaster University
Description of project	The purpose of this study was to investigate the relationship between the mortality and the exposure histories of Falconbridge nickel workers. This cohort has also been followed up with Ontario cancer incidence records at Cancer Care Ontario.
Years	Death years: 1950–1976[a] 1977–1984[b]
Number of records or individuals for the cohort	11,594 men[a] 11,577 men[b]
Main investigator(s)	Dr. Harry Shannon,[a,b] McMaster University
Project coordination	Martha Fair,[a,b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-036;[a] 1985-028[b]
Publications	Shannon HS, Cecutti AG, Julian JA, Muir DCF, Roberts RS. Mortality studies in Ontario nickel workers: The Falconbridge Project. In: Brown SS, Sunderman FW Jr., editors. *Nickel Toxicology*. London, England: Academic Press; 1980. Shannon HS, Julian JA, Roberts RS. A mortality study of 11,500 nickel workers. *Journal of the National Cancer Institute* 1984; 73(6): 1251-1258. Shannon HS, Julian JA, Muir DCF, Roberts RS, Cecutti AC. A mortality study of Falconbridge workers. In: Sunderman FW., Aitio A, Berlin A, editors. *Nickel in the Human Environment*. Lyon, France: IARC; 1984. Scientific Publications No. 53. p. 117-124. International Committee on Nickel Carcinogenesis in Man. Report of the international committee on nickel carcinogenesis in man (chaired by Sir Richard Doll). *Scandinavian Journal of Work, Environment and Health* 1990; 16: 1-82. Shannon HS, Walsh C, Jadon N, Julian JA, Weglo JK, Thornhill PG, Cecutti AG. Mortality of 11,500 nickel workers – extended follow-up and relationship to environmental conditions. *Toxicology and Industrial Health* 1991; 7 (4): 277-294. Julian JA, Muir DCF. *A Study of Cancer Incidence in Ontario Nickel Workers.* Final report to the Occupational Disease Panel of the Province of Ontario. Toronto: Occupational Disease Panel; 1996 Jan.

Project **Falconbridge Ontario Nickel Workers Mortality Study**

Occupational Disease Panel. *Report to the Workers' Compensation Board on Cancer of the Larynx in Workers in Primary Nickel Production*. Toronto: Occupational Disease Panel; 1997 July. IDSP Report No.: 19.

Project	**Inco Ontario Nickel Workers Mortality and Cancer Incidence Study**
Theme	Occupation – Miners – Nickel – Inco – Ontario
Organization(s)	McMaster University[a,b,c,d] Northeastern Ontario Regional Cancer Centre, Cancer Care Ontario[e]
Description of project	The purpose of this study was to determine if nickel workers were at increased risk of occupational mortality and cancer incidence. The effects of nickel and its potential carcinogenesis has been the focus of much international interest (e.g. the International Committee on Nickel Carcinogenesis in Man, chaired by Sir Richard Doll; the International Agency for Research in Cancer, the World Health Organization, and the United States Report on Carcinogens). Some linkages with this cohort have also been carried out at Cancer Care Ontario.
Years	Death years: 1940–1949[a] 1950–1976[b] 1977–1985[c] 1950–1994[d] 1950–2000[e] Cancer years: 1969–1999[e]
Number of records or individuals for the cohort	62,233 men employees[a,b,c] 56,395 men[d] 59,059 (both sexes)[e] - 58,116 men; 943 women
Main investigator(s)	R. Robert,[a,b,c] J. Julian,[d] and Dr. D. Muir,[d] McMaster University Dr. N. Lightfoot,[e] Northeastern Ontario Regional Cancer Centre. Cancer Care Ontario (currently Regional Cancer Program of the Hôpital Régional de Sudbury Regional Hospital)
Project coordination	Martha Fair,[a,b,c,d] Maureen Carpenter[d] and Hélène Aylwin,[e] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-033;[a] 1900-034;[b] 1985-024;[c] 1997-001;[d] 2001-016[e]
Publications	Roberts RS, Julian JA, Shannon HS, Muir DCF. Mortality study of Ontario nickel workers: the INCO/JOHC project. In: Brown SS, Sunderman FW Jr., editors. *Nickel Toxicology*. London, England: Academic Press; 1980. Roberts RS, Julian JA, Muir DCF. *The JOHC-INCO Mortality Study: An Analysis of Mortality from Cancer.* Hamilton, Ontario: McMaster University, Faculty of Health Sciences, Program in Occupational Health and Environmental Medicine; 1982.

Project

Inco Ontario Nickel Workers Mortality and Cancer Incidence Study

Roberts RS, Julian JA, Muir DCF. *A Study of Cancer Mortality in Workers Engaged in the Mining, Smelting and Refining of Nickel* Hamilton, Ontario: McMaster University, Faculty of Health Sciences, Program in Occupational Health; 1982.

Roberts RS, Julian JA. Mortality study of Canadian nickel miners. In: Wagner WL, Rom WN, Merchant JA, editors. *Health Issues Related to Metal and Nonmetallic Mining*. Boston: Butterworth Publishers; 1983. p. 241-260.

Roberts RS, Julian JA, Muir DCF, Shannon HS. Cancer mortality associated with the high-temperature oxidation of nickel subsulfide. In: Sunderman FW Jr., Aitio A, Berlin A, editors *Nickel in the Human Environment.* Lyon, France*:* International Agency for Research on Cancer; 1984. IARC Scientific Publication Report No.: 53. p. 23-35.

Roberts RS, Julian JA Sweezey D, Muir DC, Shannon HS, Mastromatteo E. A study of mortality in workers engaged in the mining, smelting, and refining of nickel. I. Methodology and mortality by major cause groups. *Toxicology and Industrial Health* 1989; 5(6): 957-974.

Roberts RS, Julian JA, Muir DC, Shannon HS. A study of mortality in workers engaged in the mining, smelting, and refining of nickel. II. Mortality from cancer of the respiratory tract and kidney. *Toxicology and Industrial Health* 1989; 5(6): 975-993.

International Committee on Nickel Carcinogenesis in Man (chaired by Sir Richard Doll). Report of the international committee on nickel carcinogenesis in man. *Scandinavian Journal of Work, Environment and Health* 1990; 16(1): 1-82.

International Agency for Research on Cancer. *Monographs on the Evaluation of Carcinogenic Risks to Humans, Chromium, Nickel and Welding*. Lyon, France; IARC; 1990.

United Nations Environment Program, International Labour Organisation, World Health Organization*. International Programme on Chemical Safety Environmental Health Criteria 108 Nickel*. Geneva, Switzerland; World Health Organization; 1991.

Roberts RS, Julian JA, Jadon N et al. Chapter 48. Cancer mortality in Ontario nickel workers, 1950-1984. In: Nieboer E, Nriagu JO, editors. *Nickel and Human Health: Current Perspectives*. New York: John Wiley and Sons, 1992. p. 630-648.

Muir DCF, Jadon N, Julian JA, Roberts RS. Cancer of the respiratory tract in nickel sinter plant workers: effect of removal from sinter plant exposure. *Occupational and Environmental Medicine* 1994; 51(1); 19-22.

Julian JA, Muir DCF. *A Study of Cancer Incidence in Ontario Nickel Workers.* Final report to the Occupational Disease Panel of the Province of Ontario*.* Toronto: Occupational Disease Panel. 1996 Jan.

Project

Inco Ontario Nickel Workers Mortality and Cancer Incidence Study

Occupational Disease Panel. *Report to the Workers' Compensation Board on Cancer of the Larynx in Workers in Primary Nickel Production*. Toronto; Occupational Disease Panel; 1997 July. IDSP Report No.: 19.

Lalonde P, Bastien J-L, Aylwin H. *Inco Ontario - Study of Inco Ontario Nickel Workers Cohort Mortality Update and Cancer Incidence.* Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 2005. Report prepared for Northeastern Ontario Regional Cancer Centre.

Project	**Inco Thompson Nickel Workers Mortality and Cancer Incidence Study**
Theme	Occupation – Miners – Nickel – Inco – Manitoba
Organization(s)	McMaster University[a] Northeastern Ontario Regional Cancer Centre, Cancer Care Ontario[b]
Description of project	The study of nickel workers examined the mortality and cancer incidence rates in the Inco Thompson cohort and compared them to the Manitoba and the Canadian populations. Specifically, the researchers wanted to identify if the work areas (e.g. open pits, refineries, smelters and mines) placed Inco nickel workers at increased risk for various diseases.
Years	Death years: 1960–1986[a] 1960–1998[b] Cancer years: 1969–1998[b]
Number of records or individuals for the cohort	18,279 men employees[a] 19,448 employees[b] - 18,323 men; 1,125 women
Main investigator(s)	R. Roberts,[a] Occupational Health Program, McMaster University Dr. N. Lightfoot,[b] Northeastern Ontario Regional Cancer Centre, Cancer Care Ontario (currently Regional Cancer Program of the Hôpital Régional de Sudbury Regional Hospital)
Project coordination	Maureen Carpenter[a] and Hélène Aylwin,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1987-038;[a] 2000-016[b]
Publications	Roberts RS, Jadon N, Julian JA. *Report to Inco Limited Regarding the Inco Thompson Study.* 1991. In Basic Science Paper: Nickel Carcinogenicity ENV-3. Available at: //nickelinstitute.org/index.cfm/ci_id/98.htm Accessed 2005 October 21. Fair M, Lalonde P, Aylwin H. *Inco Manitoba Operations: Study of Thompson Nickel Workers Cohort Mortality Update and Cancer Incidence.* Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 2003. Report prepared for Northeastern Ontario Regional Cancer Centre.

Project	**Sarnia Glass Fibre Workers Mortality and Cancer Incidence Study**
Theme	Occupation – Glass Fibre – Sarnia
Organization(s)	McMaster University
Description of project	The purpose of this study was to investigate mortality among glass fibre workers in Sarnia, Ontario also to determine whether glass fibres are hazardous to humans. This study examined the long-term health effects on workers exposed to glass fibres in the manufacturing of insulation.
Years	Death years: 1950–1977[a] 1977–1984[b] 1985–1997[c] Cancer years: 1969–1996[c]
Number of records or individuals for the cohort	2,576 men[a] 2,558 men[b] 2,560 men[c]
Main investigator(s)	Dr. H. Shannon,[a,b,c] Occupational Health Program, McMaster University
Project coordination	Martha Fair,[a,b] Maureen Carpenter,[c] and Hélène Aylwin,[c] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-037;[a] 1985-037;[b] 2000-013[c]
Publications	Shannon HS, Hayes M, Julian JA, Muir DCF. Mortality experience of glass fibre workers. *British Journal of Industrial Medicine* 1984; 41(1): 35-38. Shannon HS, Jamieson E, Julian JA, Muir DC, Walsh C. Mortality experience of Ontario glass fibre workers – extended follow-up. *Annals of Occupational Hygiene* 1987; 31(4B): 657-662. Doll R. Symposium on Man Made Fibres MMF, Copenhagen, October, 1986: overview and conclusions. *Annals of Occupational Hygiene* 1987; 31(4B); 805-819. Shannon HS, Jamieson E, Walsh C, Julian JA, Fair ME, Buffet A. Comparison of individual follow-up and computerized record linkage using the Canadian Mortality Data Base. *Canadian Journal of Public Health* 1989; 80(1): 54-57.

Project

Sarnia Glass Fibre Workers Mortality and Cancer Incidence Study

Shannon HS, Jamieson E, Julian JA, Muir DC. Mortality of glass filament (textile) workers. *British Journal of Industrial Medicine* 1990; 47(8): 533-536.

Shannon HS, Muir A, Haines T, Verma DK. Mortality and cancer incidence in Ontario glass fibre workers. *Occupational Medicine* 2005 55(7): 528-534.

Project	**Guelph Fibreglass Canada Mortality Study**
Theme	Occupation – Glass Fibre – Guelph
Organization(s)	Occupational Health Program, McMaster University
Description of project	The purpose of this study was to investigate the patterns of mortality in men occupationally exposed to glass filaments by the pulltrusion method.
Years	Death years: 1951–1986
Number of records or individuals for the cohort	1,465 - full cohort (both sexes) Small manual search of 300 men and women.
Main investigator(s)	Dr. Harry Shannon, Occupational Health Program, McMaster University
Project coordination	Deborah Jordan-Simpson, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1988-001
Publications	Shannon HS, Jamieson E, Julian JA, Muir DCF. Mortality of glass filament (textile) workers. *British Journal of Industrial Medicine* 1990; 47(8): 533-536.

Project	**Ralston Building Mortality Study**
Theme	Ralston Building
Organization(s)	Dalhousie University
Description of project	The purpose of this study was to determine if there was an excess of cancer deaths for persons working in a specific building, the Ralston Building, in Nova Scotia.
Years	Death years: 1958–1981
Number of records or individuals for the cohort	1,700 (both sexes)
Main investigator(s)	Dr. Frank White, Dalhousie University, Nova Scotia
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-038
Publications	White F, Daigle J, Heyge E. *The Occurrence of Cancer Among Office Workers, Ralston Building, Halifax, Vol. 1. A) Cohort Study: Incidence and Mortality Compared with Expected Values for Nova Scotia and Canada. B) Case Control Study: Lengths of Employment in the Ralston Building Compared Between Age and Sex Stratified Cases and Controls.* Halifax, Nova Scotia: Department of Community Health and Epidemiology, Dalhousie University; 1984.

Project	**Nova Scotia – Saskatchewan Cardiovascular Disease Mortality Study**
Theme	Heart – Nova Scotia and Saskatchewan
Organization(s)	Health and Welfare Canada Dalhousie University University of Saskatchewan Provincial departments of Health for Nova Scotia and Saskatchewan Statistics Canada
Description of project	This project was undertaken to assess the feasibility of using existing data sets (hospital admission-separations and mortality data) to explain observed provincial differences of acute myocardial infarction (AMI) mortality across Canada, in particular to investigate the question of AMI incidence and prognosis in Saskatchewan and Nova Scotia. In the first study the incidence of fatal and non-fatal acute myocardial infarction in Nova Scotia and Saskatchewan for 1977 was determined. The trends in incidence of acute myocardial infarction and related mortality in Nova Scotia and Saskatchewan for 1977, 1981 and 1985 were later investigated using hospital admission separations records linked with mortality. Whether AMI episode was a recurrent or initial one, was determined by a retrospective search of hospital admission-separations back to 1974.
Years	Death years: 1977–1981[a] 1981–1985[b] Hospital Morbidity: 1974–1976[a] 1974–1985[b]
Number of records or individuals for the cohort	Nova Scotia (men): 2,416 records; 2,105 individuals (1977) [a] Nova Scotia (women): 916 records; 801 individuals (1977)[a] Saskatchewan (men): 49,437 records; 49,401 individuals (1977)[a] Saskatchewan (women): 32,943 records; 32,905 individuals (1977)[a] Nova Scotia (men): 4,159 records (1981); 4,728 records (1985) [b] Nova Scotia (women): 2,678 records (1981); 2,875 records (1985)[b] Saskatchewan (men): 4,041 records (1981); 4,414 records (1985) [b] Saskatchewan (women): 2,777 records (1981); 3,027 records (1985) [b]
Main investigator(s)	Collaborative project – Health and Welfare Canada, Dalhousie University, University of Saskatchewan, Provincial departments of Health (Nova Scotia and Saskatchewan), Statistics Canada[a,b]
Project coordination	Martha Fair,[a,b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1987-026;[a] 1988-027[b]

Project

Nova Scotia – Saskatchewan Cardiovascular Disease Mortality Study

Publications

White FMM. Computerized record linkage: a more efficient technique for carrying out large-scale epidemiological studies. *The Nova Scotia Medical Bulletin.* 1984 February. p. 30.

Nova Scotia Saskatchewan Cardiovascular Disease Epidemiology Study Group. The Nova Scotia Saskatchewan Heart Study – a Canadian record linkage study. In: Howe GR, Spasoff RA, editors. *Proceedings of the Workshop on Computerized Record Linkage in Health Research*. Ottawa, 1986 May 21-23. Toronto: University of Toronto Press; 1986. p. 171-182.

Nova Scotia-Saskatchewan Cardiovascular Disease Epidemiology Group – Colburn H, Fair M, Johansen H, Lavigne P, MacWilliam L, Matthews V, Mao Y, Nair C, Nicholls E, Petrasovits A, Reeder B, Silins J, Stachenko S, West R, White F, Wielgosz A, Wolf H, Wynn L. Estimation of the incidence of acute myocardial infarction using record linkage: a feasibility study in Nova Scotia and Saskatchewan. *Canadian Journal of Public Health* 1989; 80(6): 412-417.

Nova Scotia-Saskatchewan Cardiovascular Disease Epidemiology Group. Trends in incidence and mortality from acute myocardial infarction in Nova Scotia and Saskatchewan, 1974 to 1985. *The Canadian Journal of Cardiology* 1992; 8(3): 253-258.

Gibbons L, Poliquin C, Fair M, Mao Y. Patterns of recurrence and survival in AMI patients in Canada. *The Canadian Journal of Cardiology* 1993; 9(7): 661-665.

Project	**St. Regis Indian Mortality Study**
Theme	Indian – St. Regis
Organization(s)	University of Ottawa
Description of project	The purpose of this study was to study the mortality of St. Regis Indians and to investigate their health status in relation to levels of fluoride.
Years	Death years: 1959–1967
Number of records or individuals for the cohort	3,500 (both sexes)
Main investigator(s)	Dr. Neri, University of Ottawa
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-041
Publications	Neri LC, Hammond EC, Shoe D, Collins D, Raman S (under the principal investigator – Dr. J.J. Selikoff). *St. Regis Indian Health Study. Final Report.* Ottawa: University of Ottawa, Faculty of Health Sciences, Department of Epidemiology and Community Medicine; 1983 Aug.

Project	**Canadian Military Personnel Exposed to Low-Dose Radiation Mortality Study**
Theme	Occupation – Radiation – Military – Ottawa University
Organization(s)	Ottawa University
Description of project	The purpose was to investigate a possible excess of cancer deaths amongst army personnel who were exposed to atomic bomb testing and to Chalk River nuclear reactor clean-ups. Two controls per "exposed" individual were linked to mortality data.
Years	Death years: 1953–1981
Number of records or individuals for the cohort	3,000 men
Main investigator(s)	Dr. S. Raman, University of Ottawa
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-042
Publications	Caldwell GG, Kelley DB, Heath CW Jr. Leukaemia among participants' military manoeuvres at a nuclear bomb test. A preliminary report. *Journal of the American Medical Association* 1980; 244 (14): 1575-1578. Raman S, Dulberg CS, Spasoff RA. *Mortality Study of Canadian Military Personnel Exposed to Radiation: Atomic Test Blasts and Chalk River Nuclear Reactor Clean-ups, 1950's.* Ottawa: University of Ottawa, Faculty of Health Sciences, Department of Epidemiology and Community Medicine; 1984. Raman S, Dulberg CS, Spasoff RA, Scott T. Mortality among Canadian military personnel exposed to low-dose radiation. *Canadian Medical Association Journal* 1987; 136(10): 1051-1056.

Project	**Ontario Undertakers Mortality Study**
Theme	Occupation – Undertakers – Ontario
Organization(s)	Chemical Industry Institute of Toxicology
Description of project	The purpose of this study was to explore the possible carcinogenic effects of exposure to formaldehyde in humans. Since morticians have a high exposure to formaldehyde, the mortality of this population was investigated.
Years	Death years: 1928–1977
Number of records or individuals for the cohort	1,500 men
Main investigator(s)	Dr. R. Levine, Chemical Industry Institute of Toxicology
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-043
Publications	Levine RJ. Mortality of Ontario undertakers. *Chemical Industry Institute of Toxicology Activities* 1982; 2(12): 3-5. Levine RJ, Andjelkovich DA, Shaw LK, DalCorso D. Mortality of Ontario undertakers: A first report. In: Clary JJ, Gibson JE, Waritz RS, editors. *Formaldehyde: Toxicology, Epidemiology and Mechanisms.* New York: Marcel Dekker, 1983. p. 127-146. Levine RJ, Dragana A, Andjelkovich DA, Shaw LK. The mortality of Ontario undertakers and a review of formaldehyde related mortality studies. *Journal of Occupational Medicine* 1984; 26(10): 740-746.

Project	**Spina Bifida Mortality Study**
Theme	Spina Bifida
Organization(s)	University of British Columbia
Description of project	The purpose of this study was to investigate survival of spina bifida patients in British Columbia. A manual search of the death microfiche was undertaken.
Years	Small manual study
Number of records or individuals for the cohort	100 (both sexes)
Main investigator(s)	Dr. P. Baird, University of British Columbia
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics, Statistics Canada
Project number(s)	1900-044
Publications	

Project	**Shell Oil Workers Mortality Study**
Theme	Occupation – Shell Oil Workers
Organization(s)	McGill University
Description of project	The purpose of this study was to study mortality in a Canadian Oil Refinery in East Montreal. A small manual search of the death microfiche was undertaken.
Years	Death years: 1928–1976
Number of records or individuals for the cohort	Small manual search
Main investigator(s)	Dr. G. Thériault, McGill University
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-045
Publications	Thériault G, Goulet L. A mortality study of oil refinery workers. *Journal of Occupational Medicine* 1979; 21(5): 367-370.

Project	**Furriers Mortality Study**
Theme	Occupation – Furriers
Organization(s)	Institute Armand Frappier
Description of project	The purpose of this study was to investigate the mortality of individuals involved in the fur industry. A manual search of the death microfiche was completed.
Years	Death years: 1966–1981
Number of records or individuals for the cohort	Small manual search
Main investigator(s)	Dr. J. Siemiatycki, Institute Armand Frappier
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-046
Publications	Guay D, Siemiatycki J. Historic cohort study in Montreal's fur industry. *American Journal of Industrial Medicine* 1987; 12(2): 181-193.

Project	**Thunder Bay Grain Handlers Mortality Study**
Theme	Occupation – Grain Handlers
Organization(s)	Gage Research Institute
Description of project	The purpose of this study was to investigate mortality among grain handlers. A manual search of the death microfiche was undertaken.
Years	Death years: 1969–1980
Number of records or individuals for the cohort	500 men
Main investigator(s)	Dr. I. Broder, Gage Research Institute
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-047
Publications	Broder I, Corey P, Davies G, Hutcheon M, Mintz S, Inouye T, Hyland R, Leznoff A, Thomas P. Longitudinal study of grain elevator and control workers with demonstration of healthy worker effect. *Journal of Occupational Medicine* 1985; 27(12): 873-880.

Project	**Breast Mammography in Ontario: The University of Toronto Mortality Study**
Theme	Cancer – Breast – Mammography – Ontario
Organization(s)	University of Toronto
Description of project	The purpose of this study was to study mortality among women who received mammography treatment. A manual search of the death microfiche was undertaken.
Years	Death years: 1968–1981
Number of records or individuals for the cohort	1,020 women
Main investigator(s)	Dr. M. Halliday, University of Toronto
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-048
Publications	

Project	**Mortality After the Death of a Spouse**
Theme	Mortality – Death of Spouse
Organization(s)	University of Alberta
Description of project	The purpose of this study was to study mortality patterns after the death of a spouse. This was a pilot study to investigate the feasibility of using British Columbia marriage records for the study. A manual search of the death microfiche was undertaken. The results of the study showed that a computerized study was technically possible.
Years	Death years: 1950–1981
Number of records or individuals for the cohort	1,018 (both sexes, married between 1946 and 1973)
Main investigator(s)	Dr. Grace Johnston, University of Alberta
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Division
Project number(s)	1900-049
Publications	

Project	**Army Clean-up and Bomb Tests Mortality Study**
Theme	Occupation – Radiation – Army – National Defence
Organization(s)	Department of National Defence
Description of project	The purpose of this study was to study the long term effects of radiation on Army personnel involved in the 1953 and 1958 Chalk River Reactor clean-ups and the Australia and Nevada bomb tests. A manual search of the death microfiche was undertaken. Overall the study indicated no excess deaths observed for diseases associated with radiation.
Years	Death years: 1953–1981
Number of records or individuals for the cohort	1,000 men
Main investigator(s)	Colonel Barnes, Department of National Defence
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-050
Publications	Smith ME, Lalonde P. *Mortality Follow-up of Canadian Servicemen Involved in Decontamination Duties at Chalk River and Observation of Nuclear Bomb Tests.* Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1984.

Project	**Welders and Plumbers Mortality Study**
Theme	Occupation – Welders and Plumbers
Organization(s)	The Gage Research Institute
Description of project	The purpose of this study was to investigate the occupational risks to plumbers and welders, in particular the possible excess of lung disease. Analysis of the data was carried out by the Gage Research Institute.
Years	Death years: 1950–1983
Number of records or individuals for the cohort	5,500 men
Main investigator(s)	Dr. I. Broder, The Gage Research Institute
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-003
Publications	

Project	**Down Syndrome Mortality Study**
Theme	Down Syndrome
Organization(s)	University of British Columbia
Description of project	The purpose of this study was to find deaths occurring outside British Columbia for 1,000 Down syndrome cases. A manual search of the death microfiche was carried out.
Years	Small manual search
Number of records or individuals for the cohort	1,000 (both sexes)
Main investigator(s)	Dr. P. Baird, University of British Columbia
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-052
Publications	Baird PA, Sadovnick AD. Life expectancy in Down syndrome. *Journal of Pediatrics* 1987; 110(6): 849-854.

Project	**Imperial Oil Mortality and Cancer Incidence Study**
Theme	Occupation – Imperial Oil Workers
Organization(s)	Imperial Oil Limited
Description of project	The purpose of this study was to assess mortality and cancer morbidity in Canadian petroleum workers and explore exposure-response relationship for specific petroleum agents. A follow-up case control study was undertaken to evaluate the relation between mortality from lymphohaemalopoietic cancer and long term low-level exposure to benzene among male petroleum distribution workers.
Years	Death years: 1964–1983[a] 1964–1994[b] Cancer years: 1969–1994 [b]
Number of records or individuals for the cohort	17,445 individuals (12,543 men; 4,902 women)[a] 40,872 individuals (30,940 men; 9,932 women)[b]
Main investigator(s)	Dr. H. W Shewchuk,[a] Imperial Oil Limited Dr. A. Katz,[b] Imperial Oil Limited
Project coordination	Elizabeth Coppock,[a] Martha Fair,[b] and Dores Zuccarini,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-011;[a] 1997-005[b]
Publications	Hanis NM, Stavraky KM, Fowler JL. Cancer mortality in oil refinery workers. *Journal of Occupational Medicine* 1979; 21 (3): 167-174. Schnatter AR, Acquavella JF, Thompson FS, Donaleski D, Thériault G. An analysis of death ascertainment and follow-up through Statistics Canada's Mortality Data Base system. C*anadian Journal of Public Health* 1990; 81(1): 60-65. Schnatter AR, Thériault G, Katz AM, Thompson FS, Donaleski D, Murray N. A retrospective mortality study within operating segments of a petroleum company. *American Journal of Industrial Medicine* 1992; 22(2): 209-229. Schnatter AR, Katz AM, Nicholich MJ, Thériault G. A retrospective mortality study among Canadian petroleum marketing and distribution workers. *Environmental Health Perspectives* 1993; 101 Suppl 6: 85-99.

Project **Imperial Oil Mortality and Cancer Incidence Study**

Schnatter AR, Armstrong TW, Nicolich MJ, Thompson FS, Katz AM, Huebner WW, Pearlman ED. Lymphohaematopoietic malignancies and quantitative estimates of exposure to benzene in Canadian petroleum distribution workers. *Occupational and Environmental Medicine* 1996; 53(11): 773-781.

Schnatter AR, Armstrong TW, Thompson FS, Nicolich MJ, Katz AM, Huebner WW, Pearlman ED. The relationship between low-level benzene exposure and leukemia in Canadian petroleum distribution workers. *Environmental Health Perspectives* 1996; 104 Suppl 6: 1375-1379.

Armstrong TW, Pearlman ED, Schnatter AR, Bowes SM, Murray N, Nicolich MJ. Retrospective benzene and total hydrocarbon exposure assessment for a petroleum marketing and distribution worker epidemiology study. *American Industrial Hygiene Association Journal* 1996; 57(4): 333-343.

Lewis RJ, Schnatter AR, Katz AM, Thompson FS, Murray N, Jorgensen G, Thériault G. Updated mortality among diverse operating segments of a petroleum company. *Occupational and Environmental Medicine* 2000; 57(9): 595-604.

Lewis RJ, Schnatter AR, Drummond I, Murray N, Thompson FS, Katz AM, Jorgensen G, Nicolich MJ, Dahman D, Thériault G. Mortality and cancer incidence in a cohort of Canadian petroleum workers. *Occupational and Environmental Medicine* 2003; 60(12): 918-928.

Project	**Dow Chemical Canada Mortality and Cancer Incidence Study**
Theme	Occupation – Dow Chemical Workers
Organization(s)	Dow Chemical Canada Limited[a,b] The Dow Chemical Company[c]
Description of project	The purpose of this study was to investigate the mortality and cancer incidence patterns of employees of Dow Chemical manufacturing sites. An alive follow-up was also carried out. The first study looked at Sarnia, Ontario employees, and an update expanded the cohort to include workers at Sarnia and Fort Saskatchewan, Alberta.
Years	Death years: 1950–1984[a,b] 1950–1999[c] Cancer years: 1969–1999[c]
Number of records or individuals for the cohort	4,099 (both sexes)[a,b] - 3,475 men; 624 women from Sarnia 6,578 (both sexes)[c] - 5,277 men; 1,301 women from Sarnia and Fort Saskatchewan
Main investigator(s)	Dr. R. Egedahl and Dr. G. Olsen,[a,b] Dow Chemical Canada Limited Dr. Carol Burns,[c] The Dow Chemical Company
Project coordination	Elizabeth Coppock,[a] Maureen Carpenter[b] and Bryan Lafrance[c] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-022;[a] 1987-027;[b] 2002-002[c]
Publications	Egedahl RD, Olsen GW, Coppock E, Young ML, Arnold IMF. An historical prospective mortality study of the Sarnia division of Dow Chemical Canada, Inc. Sarnia, Ontario (1950-1984). *Canadian Journal of Public Health* 1989; 80(6): 441-446. Egedahl RD, Olsen GW, Coppock E, Young ML, Arnold IMF. Utilization of the Canadian Mortality Data Base for follow-up of a cohort of Sarnia, Ontario chemical workers. In: Carpenter M, Fair ME, editors. *Proceedings of the Record Linkage Sessions and Workshop: Canadian Epidemiology Research Conference;* 1989 August 30-31; Ottawa. Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1990. p. 71-79. Burns CJ, Harrison KF, Jammer BL, Zuccarini D, Lafrance B. A cancer incidence and mortality study of Dow Chemical Canada, Inc. manufacturing sites. *Occupational Medicine (London)* 2005 55(8): 618-624.

Project	**Sherritt Mortality Study**
Theme	Occupation – Sherritt Workers
Organization(s)	Sherritt Gordon Mines Limited[a,b] Sherritt Gordon Limited[c] Sherritt International Corporation[d,e]
Description of project	The purpose of this study was to examine the mortality experience of workers at a hydrometallurgical nickel refinery and fertiliser complex in Fort Saskatchewan, Alberta. An alive follow-up was carried out for this cohort.
Years	Death years: 1954–1984[a,b] 1954–1989[c] 1954–1995[d] 1954–2002[e]
Number of records or individuals for the cohort	1,640 men[a,b,c] 1,649 men[d] 2,542 men[e]
Main investigator(s)	Dr. R. Egedahl,[a,b,c,d,e] Consultant to Sherritt
Project coordination	Elizabeth Coppock,[a] Maureen Carpenter[b,c,d] and Dores Zuccarini,[e] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-023;[a] 1987-027;[b] 1991-022;[c] 1997-016;[d] 2004-014[e]
Publications	Egedahl RD, Coppock E. Mortality experiences at a hydrometallurgical nickel refinery in Fort Saskatchewan, Alberta between 1954 and 1984. *The Journal of the Society of Occupational Medicine* 1991; 41(1): 29-33. Egedahl RD, Fair ME, Homik R. Mortality among employees at a hydrometallurgical nickel refinery and fertilizer complex in Fort Saskatchewan, Alberta (1954-1984). *Canadian Journal of Public Health* 1993; 84(1):40-44. Egedahl RD, Carpenter M, Homik R. An update of an epidemiology study at a hydrometallurgical nickel refinery in Fort Saskatchewan, Alberta. *Health Reports* (Statistics Canada, Catalogue 82-003) 1993; 5(3): 291-302. Egedahl R, Carpenter M, Lundell D. Mortality experience among employees at a hydrometallurgical nickel refinery and fertiliser complex in Fort Saskatchewan, Alberta (1954-95). *Occupational and Environmental Medicine* 2001; 58(11): 711-715.

Project	**Infant Death and Birth Linkage for Ontario**
Theme	Infant Mortality – Ontario
Organization(s)	University of Western Ontario
Description of project	The purpose of this study was to investigate the variance of the quality of prenatal and postnatal care between regions and over time. Infant deaths were linked to births occurring in 1970 to 1972. Statistics were compared to those from a previous linkage of infant deaths resulting from births in 1978-1979.
Years	Death years: 1970–1973 for infant deaths Birth years: 1970–1972
Number of records or individuals for the cohort	6,073 infant deaths (both sexes) linked to approximately 400,000 births
Main investigator(s)	Dr. Carol Buck, University of Western Ontario
Project coordination	Elizabeth Coppock, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-056
Publications	

Project	**Census Birth and Infant Death Study for Ontario**
Theme	Infant Mortality – Census
Organization(s)	University of Western Ontario
Description of project	The purpose of this study was to take a sample of live births, stillbirths and infant death certificates and to link them to 1971 census long forms to determine socio-economic factors associated with the family. The study looked also at trends of infant and prenatal mortality by county for 1970 to1972 and 1978 to1979 in Ontario.
Years	Census: 1971
Number of records or individuals for the cohort	250 stillbirths 300 infant deaths 350 live births
Main investigator(s)	Dr. C. Buck, University of Western Ontario
Project coordination	Elizabeth Coppock, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-026
Publications	Coppock E. *A Report on the Search for Census Data Pertaining to Households Having a Birth Outcome in 1971.* Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1988 June. Buck C. *A Study of Regional Differences in Prenatal and Infant Mortality in the Province of Ontario*. London, Ontario: University of Western Ontario; 1989 Oct. Project 6606-2759-42 Final Report.

Project	**Ontario Traffic and Motor Vehicle Accident Mortality Study**
Theme	Traffic – Accident – Ontario
Organization(s)	University of Toronto
Description of project	The purpose of this study was to investigate discrepancies in the records of persons killed in motor vehicle accidents as recorded by the police in accident reports and by the coroner in death certificates.
Years	Death years: 1981–1983
Number of records or individuals for the cohort	3,000 (both sexes)
Main investigator(s)	Dr. Mary L. Chipman, University of Toronto.
Project coordination	Elizabeth Coppock, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-025
Publications	Chipman ML. Motor vehicle accident fatality statistics: an investigation of reliability. *Canadian Journal of Public Health* 1983; 74(6): 381-384.

Project	**Ontario Hydro/Hydro One Networks Inc. Forestry Workers Mortality Study**
Theme	Occupation – Hydro Workers – Ontario
Organization(s)	Ontario Hydro/Hydro One Networks Inc.
Description of project	The purpose of this study was to assess the causes of death for Ontario Hydro/Hydro One Network Inc. forestry tradesmen based on duration of employment, exposure to specific herbicides, work location and to compare death rates in this trade group with those of the general population. This was a small manual search of the death records for those individuals who potentially could have been lost to follow-up. Later Canada participated in an international study coordinated by the International Agency for Research on Cancer. This study was carried out comprising 36 cohorts from 12 countries.
Years	Death years: 1950–1982[a] 1950–1992[b]
Number of records or individuals for the cohort	245 men[a] - complete analysis has 1,225 men 245 men[b]
Main investigator(s)	Dr. Lois M. Green, Health Services Department, Ontario Power Generation
Project coordination	Martha Fair[a] and Maureen Carpenter,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1986-001;[a] 1995-008[b]
Publications	Green LM. Suicide and exposure to phenoxy acid herbicides. *Scandinavian Journal of Work Environment and Health* 1987; 13(5): 396-402. Green LM. A cohort mortality study of forestry workers exposed to phenoxy acid herbicides. *British Journal of Industrial Medicine* 1991; 48(4): 234 – 238. Saracci R, Kogevinas M, Bertazzi PA, Bueno-de-Mesquita BH, Coggon D, Green LM, Kauppinen T, L'Abbe KA, Littorin M, Lynge E, et al. Cancer mortality in workers exposed to chlorophenoxy herbicides and chlorophenols. *Lancet* 1991; 338(8774): 1027-1032. Kogevinas M, Saracci R, Bertazzi PA, Bueno-de-Mesquita B, Coggon D, Green LM, Kauppinen T, Littorin M, Lynge E, Matthews JD, Neuberger M, Osman J, Pearce N, Winkelman R. Cancer mortality in an international cohort of workers exposed to chlorophenoxy herbicides and chlorophenols. *Chemosphere* 1992; 25(7-10): 1071-1076.

Project

Ontario Hydro/Hydro One Networks Inc. Forestry Workers Mortality Study

Kauppinen T, Kogevinas M, Johnson E, Becher H, Bertazzi PA, Bueno-de-Mesquita HB, Coggon D, Green L, Littorin M, Lynge E, Matthews J, Neuberger M, Osman J, Pannett B, Pearce N, Winkelman R, Saracci R. Chemical exposure in manufacture of peony herbicides and chlorophenols and in spraying of phenoxy herbicides. *American Journal of Industrial Medicine* 1993; 23(6): 903-920.

Kogevinas M, Kauppinen T, Winkelman R, Becher H, Bertazzi PA, Bueno-de-Mesquita HB, Coggon D, Green L, Johnson E, Littorin M, Lynge E, Marlow DA, Mathers JD, Neuberger M, Benn T, Pannett B, Pearce N, Saracci R. Soft tissue sarcoma and non-Hodgkin's lymphoma in workers exposed to phenoxy acid herbicides, chlorophenols and dioxins: two nested case-control studies. *Epidemiology* 1995; 6(4): 396-402.

Kogevinas M, Becher H, Benn T, Bertazzi PA, Boffetta P, Bueno-de-Mesquita HB, Coggon D, Colin D, Flesch-Janys D, Fingerhut M, Green L, Kauppinen T, Littorin M, Lynge E, Mathews JD, Neuberger M, Pearce N, Saracci R. Cancer mortality in workers exposed to phenoxy herbicides, chlorophenols, and dioxins. An expanded and updated international cohort study. *American Journal of Epidemiology* 1997; 145(12): 1061-1075.

Vena J, Boffetta P, Becher H, Benn T, Bueno-de-Mesquita HB, Coggon D, Colin D, Flesch-Janys D, Green L, Kauppinen T, Littorin M, Lynge E, Mathews JD, Neuberger M, Pearce N, Pesatori AC, Saracci R, Steenland K, Kogevinas M. Exposure to dioxin and nonneoplastic mortality in the expanded IARC international cohort study of phenoxy herbicide and chlorophenol production workers and sprayers. *Environmental Health Perspectives* 1998; 106 Suppl 2: 645-653.

Project	**British Columbia Cancer Control Agency Mortality Study**
Theme	Cancer – Death Clearance – British Columbia
Organization(s)	Cancer Control Agency of British Columbia
Description of project	The purpose of this study was to link a cohort of patients treated at the British Columbia Cancer Control Agency to the Canadian Mortality Data Base. This was carried out to assess the efficiency of passive follow-up using record linkage techniques versus active follow-up by patient contact.
Years	Death years: 1950–1982
Number of records or individuals for the cohort	20,000 individuals (both sexes) non- skin cancer patients
Main investigator(s)	R. Gallagher, Cancer Control Agency of British Columbia
Project coordination	Elizabeth Coppock, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1985-005
Publications	Spinelli JJ, Gallagher RP, Band PR, Threlfall WJ, Raynor D, Schellekens H. Occupational associations among British Columbia male cancer patients. *Canadian Journal of Public Health* 1990; 81(4): 254-258.

Project	**Aging in Manitoba Longitudinal Mortality Study**
Theme	Aging – Manitoba
Organization(s)	Manitoba Department of Health
Description of project	The objectives of the study were to determine the mortality of a cohort of elderly Manitobans; a) to examine the factors which may signal impending death; b) to examine the relationship which exists between cause and location of death and factors such as age, sex, and heath status; and c) to determine the needs and resources of older Manitobans to assist government and non-government planners in creating more effective and efficient services for the elderly. The study involved linking individuals from the original study and a cross- sectional sample of individuals that were lost to follow-up. A small manual search of the death microfiche was done.
Years	Death years: 1971–1985[a] 1971–1988[b] 1983–1990[c]
Number of records or individuals for the cohort	Approximately 350 individuals (both sexes) from the survey who were lost to follow-up- manual searches.
Main investigator(s)	Dr. Betty Havens,[a,b,c] Manitoba Department of Health
Project coordination	Martha Fair[a,c] and D. Jordan-Simpson,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1986-006;[a] 1988-019;[b] 1992-013[c]
Publications	Mossey JM, Havens B, Roos NP, Shapiro E. The Manitoba longitudinal study: description and methodology. *Gerontologist* 1981; 21(5): 551-558. Mossey JM, Shapiro E. Self-rated health: a predictor of mortality among the elderly. *American Journal of Public Health* 1982; 72(8): 800-808. Roos NP, Havens B. Predictors of successful aging: a twelve-year study of Manitoba elderly. *American Journal of Public Health* 1991; 81(1): 63-68. Roos NP, Havens B, Black C. Living longer but doing worse: assessing health status in elderly persons at two points in time in Manitoba, Canada 1971 and 1983. *Social Science and Medicine* 1993; 36(3): 273-282.

Project	**Alberta Mental Health Affective Disorders Mortality Study**
Theme	Mental Health – Affective Disorders
Organization(s)	Alberta Social Services and Community Health
Description of project	The purpose of this study was to examine the risk factors and mortality experience among patients diagnosed as having an affective disorder. The principal objective was to determine whether there was a gradient of increasing mortality risk across the following diagnostic subgroups: manic disorder, bipolar affective disorder and major depressive disorder.
Years	Death years: 1976–1985
Number of records or individuals for the cohort	4,022 patients (both sexes)
Main investigator(s)	Dr. S. Newman and Dr. R. Bland, Alberta Social Services and Community Health
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1987-006
Publications	Newman SC, Bland RC. Suicide risk varies by subtype of affective disorder. *Acta Psychiatric Scandinavian* 1991; 83(6): 420-426.

Project	**Alberta Mental Health Schizophrenic Patients Mortality Study**
Theme	Mental Health – Schizophrenia
Organization(s)	Alberta Social Services and Community Health
Description of project	The purpose of this study was to examine the risk of mortality, particularly the risk of suicide, for schizophrenic patients. Other factors which may influence survival such as marital status, education, occupation and medical history were examined. Of particular interest was to determine if schizophrenic individuals, whether inpatients or outpatients, had a greater than average risk of mortality, and in particular if they were at greater risk of suicide.
Years	Death years: 1976–1985[a,b]
Number of records or individuals for the cohort	3,623 patients (both sexes)
Main investigator(s)	Dr. S. Newman and Dr. R. Bland, Alberta Social Services and Community Health
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1986-005;[a] 1987-005[b]
Publications	Newman SC, Bland RC. Mortality in a cohort of patients with schizophrenia: a record linkage study. *Canadian Journal of Psychiatry* 1991; 36(4): 239-245.

Project	**Northern Telecom Workers Mortality Study**
Theme	Occupation – Northern Telecom
Organization(s)	Hôpital du Sacré-Cœur de Montréal
Description of project	This project was part of a three-phase research project. Phase one was a cancer incidence study of the employees in the Montreal plants of Northern Telecom Company which had been undertaken earlier. This revealed a high risk of malignant skin melanoma. Phase two examined the standardized mortality ratios for the cohort. Phase three examined the risk factors that contributed to the development of malignant skin melanomas.
Years	Death years: 1976–1983
Number of records or individuals for the cohort	575 (both sexes) - 372 men; 203 women 9,590 (both sexes, total) - 7,151 men; 2,439 women
Main investigator(s)	Dr. Louise De Guire, Hôpital du Sacré-Cœur de Montréal
Project coordination	Pierre Lalonde, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1987-037
Publications	De Guire L, Thériault G, Iturra H, Provencher S, Cyr D, Case BW. Increased incidence of malignant melanoma of the skin in workers of a telecommunications industry. *British Journal of Industrial Medicine* 1988 ; 45(12): 824-828. De Guire L, Cyr D, Thériault G. *Mortalité des travailleurs des usines de Montréal de Northern Telecom (1976 à 1983).* Hôpital du Sacré-Cœur de Montréal, 1990 février. De Guire L, Cyr D, Thériault G, Provencher S, Iturra H, Case BW. Malignant melanoma of the skin among workers in a telecommunications industry: mortality study 1976-83. *British Journal of Industrial Medicine* 1992; 49(10): 728-731.

Project	**Indian Registry Mortality Linkage Study**
Theme	Indian – Registry
Organization(s)	Health and Welfare Canada
Description of project	The purposes of this study were: a) to develop the appropriate methodology for linkage of the Indian register to mortality data; b) to determine the cost of a full study; and c) to estimate the level of accuracy for ascertainment of deaths. A pilot study was first completed to test the procedures using data for 1981.
Years	Death years: 1981–1983
Number of records or individuals for the cohort	1,932 (both sexes) - 1,178 men; 754 women
Main investigator(s)	Dr. D. Wigle and Yang Mao,' Health and Welfare Canada
Project coordination	Elizabeth Coppock and Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1987-021
Publications	Mao Y, Moloughney BW, Semenciw RM, Morrison HI. Indian reserve and registered Indian mortality in Canada. *Canadian Journal of Public Health* 1992; 83 (5): 350-353.

Project	**Childhood Cancers and Parental Occupational Radiation Exposure Feasibility Study**
Theme	Occupation – Radiation – Children
Organization(s)	University of Ottawa
Description of project	The purpose of this pilot study was to explore the possibility of using record linkage to determine the cancer risks to children that may possibly be associated with parental occupational radiation exposure. Of particular interest was parental radiation exposure and leukaemia in offspring. The approach ultimately selected was carried out by other organizations in Ontario. This involved an ecological comparison of childhood leukaemia rates for various geographic regions. Later a case control study design was used to test the hypothesis that there is an association between childhood leukaemia and the occupational exposure of fathers to ionising radiation before a child's conception.
Years	Birth years: 1978–1980 manual searches
Number of records or individuals for the cohort	Small pilot study only
Main investigator(s)	Dr. S. Raman, University of Ottawa
Project coordination	Elizabeth Coppock, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1986-010
Publications	Clarke EA, McLaughlin J, Anderson TW. *Childhood Leukaemia Around Canadian Nuclear Facilities – Phase I. Final Report*. Ottawa: Atomic Energy Control Board; May 1989. AECB Report No.: INFO–0300. Clarke EA, McLaughlin J, Anderson TW. *Childhood Leukaemia Around Canadian Nuclear Facilities – Phase II. Final Report*. Ottawa: Atomic Energy Control Board; 1991 June. AECB Report No.: 0300–2. McLaughlin JR, Clarke EA, Nishri ED, Anderson TW. Childhood leukemia in the vicinity of Canadian nuclear facilities. *Cancer Causes and Control* 1993; 4(1): 51-58. McLaughlin JR, King WD, Anderson TW, Clarke EA, Ashmore JP. Paternal radiation exposure and leukaemia in offspring: the Ontario case-control study. *British Medical Journal* 1993; 307(6910): 959-966.

Project	**Celanese Canada Mortality Study**
Theme	Occupation – Celanese Workers
Organization(s)	McGill University
Description of project	The purposes of this study were: a) to evaluate the occupational health risks of the employees and former employees of the Celanese synthetic textile plant in Drummondville, Quebec, b) to investigate mortality and cancer incidence of colorectal cancer of the workers at the synthetic textile plant in Drummondville, Quebec, and c) to evaluate the accuracy of computer versus manual techniques in ascertaining vital status for this cohort.
Years	Death years: 1947–1986
Number of records or individuals for the cohort	Approximately 12,000 records (both sexes) relating to 7,487 men; 2,724 women
Main investigator(s)	Dr. G. Thériault and M. Goldberg, McGill University
Project coordination	Maureen Carpenter, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1989-001
Publications	Goldberg MS. Ascertaining vital status in a historical cohort study of employees of an Eastern Townships synthetic textiles plant. In: Carpenter M, Fair ME, editors. *Proceedings of the Record Linkage Sessions and Workshop: Canadian Epidemiology Research Conference;* 1989 August 30-31; Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1990. p. 247-263. Goldberg MS, Carpenter M, Thériault G, Fair ME. The accuracy of ascertaining vital status in a historical cohort study of synthetic textile workers using computerized record linkage to the Canadian Mortality Data Base. *Canadian Journal of Public Health* 1993; 84(3): 201-204. Goldberg MS, Thériault G. Retrospective cohort study of workers of a synthetic textiles plant in Quebec: I. General mortality. *American Journal of Industrial Medicine* 1994; 25(6): 889 – 907. Goldberg MS, Thériault G. Retrospective cohort study of workers of a synthetic textiles plant in Quebec: II. Colorectal cancer mortality and incidence. *American Journal of Industrial Medicine* 1994; 25(6): 909-922.

Project	**Dofasco Foundry Workers Mortality Study**
Theme	Occupation – Dofasco Workers
Organization(s)	Dofasco Incorporated
Description of project	The purpose of this study was to evaluate the occupational health risks for current and former foundry workers at the Dofasco Steel Company in Hamilton, Ontario. Of particular interest was the effect of silica. Exposure and smoking histories were available.
Years	Death years: 1974–1986[a] 1974–1990[b]
Number of records or individuals for the cohort	8,200 men - full cohort 2,172 men;[a] 2,516 men[b] - 344 men were added
Main investigator(s)	Dr. E. S. Gibson[a] and W. Terry,[b] Dofasco Incorporated
Project coordination	Maureen Carpenter,[a,b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1988-01;[a] 1992-016[b]
Publications	Srinivasan T. *A Historical Cohort Mortality Analysis of Workers at a Canadian Steel Plant (1974-1990)* (M.Sc. thesis dissertation). Hamilton, Ontario: McMaster University, Department of Mathematics and Statistics; 1997. (H. Shannon supervisor)

Project	**Firefighters – Alberta – Mortality Study**
Theme	Occupation – Firefighters – Alberta
Organization(s)	University of Alberta
Description of project	The purpose of this study was to examine the long-term health risks for fire-fighters. Potential health risks would be derived primarily from the cumulative effects of repeated short but intense exposures to a great variety of toxic substances arising out of the combustion of an ever-changing spectrum of construction and household materials. The focus here was to determine the causes of death for cases that were potentially lost to follow-up. A manual linkage of death records was undertaken.
Years	Death years: 1927–1987
Number of records or individuals for the cohort	3,328 men from Calgary and Edmonton for the overall study 176 men (Calgary) - manual search 392 men (Edmonton) - manual search
Main investigator(s)	T. Guidotti, University of Alberta
Project coordination	Elizabeth Coppock and Maureen Carpenter, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1987-025
Publications	Guidotti TL. Mortality of urban firefighters in Alberta, 1927-1987. *American Journal of Industrial Medicine* 1993; 23(6): 921-940. Guidotti TL. Occupational mortality among firefighters: assessing the association. *Journal of Occupational and Environmental Medicine* 1995; 37(12): 1348-1356.

Project	**Maternal Deaths in Canada Study**
Theme	Maternal Mortality
Organization(s)	Health and Welfare Canada
Description of project	The purpose of this study was to explore the anticipated effect of changes in the definition of maternal death under ICD-10 on the understanding and reporting of maternal deaths. Investigations regarding maternal deaths were and continue to be of major importance to the Canadian Perinatal Surveillance System. In Canada, maternal mortality reporting is based on information contained on death certificates. Deaths in Canada were being coded according to the 9th revision of the International Classification of Diseases, but since the year 2000 deaths have been classified to the 10th revision. The ICD-10 definition of maternal mortality is more comprehensive than its predecessors, more causes of death are classified under maternal mortality, and two new categories have been added: "late" maternal, which includes deaths that occur beyond the traditionally defined 42-day postpartum period, and "pregnancy-related", which includes all deaths around the time of pregnancy regardless of the causes. In addition, the purpose of the study was to determine whether maternal mortality was under-reported in Canada and to determine reasons for any omissions. For some years some provinces (e.g. Newfoundland) had to be excluded from the analysis, but may have been included in the record linkage phase.
Years	Death years: 1978–1982[a] 1988–1993[b] Livebirth years: 1978–1980[a] 1987–1992[b] Stillbirth years: 1987–1992 [b]
Number of records or individuals for the cohort	29, 329[a] women death records (women 10–49 years, deaths excluded Newfoundland) 780,388[a] (both sexes) birth records (births excluded Newfoundland and Québec) 43,565[b] women death records (women 10–50 years) 14,427[b] (both sexes) stillbirth records 2,350,594[b] (both sexes) livebirth records
Main investigator(s)	Dr. Phil Banister,[a] Health and Welfare Canada Dr. Catherine McCourt,[b] Health and Welfare Canada
Project coordination	Elizabeth Coppock[a] and Martha Fair,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada

Project	**Maternal Deaths in Canada Study**
Project number(s)	1989-026;[a] 1997-004[b]
Publications	Turner LA, Cyr M, Kinch RA, Liston R, Kramer MS, Fair M, Heaman M for the Maternal Mortality and Morbidity Study Group of the Canadian Perinatal Surveillance System. Under-reporting of maternal mortality in Canada: a question of definition. *Chronic Diseases in Canada* 2002; 23(1): 22-30. Turner LA, Kramer MS, Liu S for the Maternal Mortality and Morbidity Study Group of the Canadian Perinatal Surveillance System. Cause-specific mortality during and after pregnancy and the definition of maternal death. *Chronic Diseases in Canada* 2002; 23(1): 31-36. Health Canada. *Special Report on Maternal Mortality and Severe Morbidity in Canada – Enhanced Surveillance: The Path to Prevention.* Ottawa: Minister of Public Works and Government Services Canada, 2004. Catalogue No.: H39-4/44-2004E.

Project	**National Breast Screening Mortality and Cancer Incidence Study**
Theme	Cancer – Breast – National Breast Screening Study – NBSS – Mammography
Organization(s)	Department of Preventive Medicine and Biostatistics (now Department of Public Health Sciences), University of Toronto
Description of project	The Canadian National Breast Screening Study (NBSS) was a randomized clinical trial which began in 1980, to determine the efficacy of screening for women aged 40 to 49 and 50 to 59. Women were recruited in 15 centres across Canada and randomly assigned to study or control groups. All members of the study groups were given annual mammography and physical examination for four or five annual screens. Women aged 40 to 49 years that were in the control group had one physical (or clinical) breast examination and were followed annually by mail, whereas the controls aged 50 to 59 had annual physical breast examinations. Identified breast cancers were followed indefinitely. The protocol required that the cohort be linked to national health files. All participants in the study signed informed consent giving permission for future linkages and follow-up. The women were linked to the Canadian Mortality Data Base (CMDB) and the Canadian Cancer Data Base (CCDB) to determine the causes of death and cancer incidence. Additional linkages were carried out to aid in determining the vital status of the cohort. All breast cancer cases detected during the course of the study were followed directly with annual reports from their physicians. A number of additional related papers were published regarding NBSS breast self examination, including evaluation of performance and effect on mortality and quality control.
Years	Death years: 1981–1988[a] 1981–1993[b] 1981–1999[c] Cancer years: 1969–1993[b] 1969–1999 (1998 for Quebec)[c]
Number of records or individuals for the cohort	89,835 women,[a,b,c] aged 40–59, on entry to the study
Main investigator(s)	Dr. A.B. Miller, Dr. G. Howe, Dr. T. To, Dr. C.J. Baines, and C. Wall,[a,b] University of Toronto Dr. Tom Rohan and Dr. A.B. Miller,[c] University of Toronto
Project coordination	Elizabeth Coppock[a] and Maureen Carpenter,[b,c] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1989-025;[a] 1995-019;[b] 2000-011[c]

Project

National Breast Screening Mortality and Cancer Incidence Study

Publications

Miller AB, Howe GR, Wall C. The National Study of Breast Cancer Screening protocol for a Canadian randomized controlled trial of screening for breast cancer in women. *Clinical and Investigative Medicine* 1981; 4(3-4): 227-258.

Miller AB. The Canadian National Breast Screening Study. In: Day NE, Miller AB, editors. *Screening for Breast Cancer*. Toronto: Hans Hubex Publishers; 1988. p. 51-58

Miller AB, Baines CJ, To T, Wall C. Canadian National Breast Screening Study: 1. Breast cancer detection and death rates among women aged 40 to 49 years. *Canadian Medical Association Journal* 1992; 147(10): 1459-1476.

Miller AB, Baines CJ, To T, Wall C. Canadian National Breast Screening Study: 2. Breast cancer detection and death rates among women aged 50 to 59 years. *Canadian Medical Association Journal* 1992; 147(10): 1477-1488.

Miller AB, To T, Baines CJ, Wall C. The Canadian National Breast Screening Study: update on breast cancer mortality. *Journal of the National Cancer Institute Monographs* 1997; (22): 37-41.

Miller AB, To T, Baines CJ, Wall C. Canadian National Breast Screening Study-2: 13-year results of randomized trial in women aged 50-59 years. *Journal of National Cancer Institute* 2000; 92(18): 1490-1499.

Miller AB, To T, Baines CJ, Wall C. The Canadian National Breast Screening Study-1: Breast cancer mortality after 11 to 16 years of follow-up. A randomized screening trial of mammography in women age 40 to 49 years. *Annals of Internal Medicine* 2002; 137(5): 305-312.

Miller AB. Is mammography screening for breast cancer really not justifiable. *Recent Results in Cancer Research* 2003; 163: 115-128.

Rijnsburger AJ, van Oortmarssen GJ, Boer R, Draisma G, To T, Miller AB, de Koning HJ. Mammography benefit in the Canadian National Breast Screening Study-2: a model evaluation. *International Journal of Cancer* 2004; 110(5): 756-762.

Project	**National Breast Screening – Lifestyle and Diet, Mortality and Cancer Incidence Study**
Theme	Cancer – Breast – National Breast Screening Study – NBSS – Lifestyle – Diet – Smoking – Obesity
Organization(s)	Department of Preventive Medicine and Biostatistics (now Department of Public Health Sciences), University of Toronto
Description of project	The Canadian National Breast Screening Study (NBSS) was a randomized clinical trial which began in 1980, to determine the efficacy of screening for women aged 40 to 49 and 50 to 59. Women were recruited in 15 centres across Canada and randomly assigned to study or control groups (see National Breast Screening mortality and cancer incidence study). About 60% of the women who were enrolled in the clinical trial also completed a self-administered lifestyle and dietary questionnaire. These data were used to study the relationship between dietary intake and a variety of cancers. A number of related papers have been prepared of pooled analyses of various cohorts (including the NBSS) in relation to diet and cancer.
Years	Death years: 1981–1988[a] 1981–1993[b] 1981–1999[c] Cancer years: 1969–1993[b] 1969–1999 (1998 for Quebec)[c]
Number of records or individuals for the cohort	89,835 women,[a,b,c] aged 40 – 59, on entry to the study
Main investigator(s)	Dr. Tom Rohan[c] and Dr. A.B. Miller,[a,b,c] University of Toronto
Project coordination	Elizabeth Coppock[a] and Maureen Carpenter,[b,c] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1989-025;[a] 1995-019;[b] 2000-011[c]
Publications	Rohan TE, Hartwick W, Miller AB, Kandel RA. Immunohistochemical detection of c-erb B-2 and p53 in benign breast disease and breast cancer risk. *Journal of the National Cancer Institute* 1998; 90(17): 1262-1269. Rohan TE, Miller AB. A cohort study of cigarette smoking and risk of fibroadenoma. *Journal of Epidemiology and Biostatistics* 1999; 4(4): 297-302. Rohan TE, Jain M, Howe GR, Miller AB. A cohort study of dietary carotenoids and lung cancer risk in women. *Cancer Causes and Control* 2002; 13(3): 231-237.

Project

National Breast Screening – Lifestyle and Diet, Mortality and Cancer Incidence Study

Terry P, Jain M, Miller AB, Howe GR, Rohan TE. Dietary carotenoid intake and colorectal cancer risk. *Nutrition and Cancer* 2002; 42(2); 167-172.

Terry PD, Miller AB, Rohan TE. Prospective study of cigarette smoking and colorectal cancer risk in women. *International Journal of Cancer* 2002; 99(3): 480-483.

Terry PD, Miller AB, Rohan TE. Cigarette smoking and breast cancer risk: a long latency period? *International Journal of Cancer* 2002; 100(6): 723-728.

Terry PD, Miller AB, Rohan TE. Obesity and colorectal cancer risk in women. *Gut* 2002; 51; 191-194.

Terry PD. Miller AB, Rohan TE. A prospective study of cigarette smoking and the risk of endometrial cancer. *British Journal of Cancer* 2002; 86(9): 1430-1435.

Terry P, Jain M, Miller AB, Howe GR, Rohan TE. Dietary carotenoids and risk of breast cancer. *The American Journal of Clinical Nutrition* 2002; 76(4): 883-888.

Terry PD, Jain M, Miller AB, Howe GR, Rohan TE. Glycemic load, carbohydrate intake, and risk of colorectal cancer in women: a prospective cohort study. *Journal of the National Cancer Institute* 2003; 95(12): 914-916.

Project	**Canada Fitness Survey Mortality and Cancer Incidence Study**
Theme	Survey – Canada Fitness Survey
Organization(s)	Health and Welfare Canada Canadian Fitness and Lifestyle Research Institute
Description of project	The purpose of this study was to link the 1981 Canada Fitness Survey to the Canadian Mortality Data Base to ascertain mortality rates by age and sex for different diseases and to examine the possible relationships between fitness and activity levels and risk of premature death, or death due to cardiovascular disease or cancer. The cohort was also linked to the Canadian Cancer Data Base.
Years	Death years: 1981–1988[a] 1981–1993[b] Cancer years: 1981–1991[b]
Number of records or individuals for the cohort	23,400 individuals[a,b] (both sexes)
Main investigator(s)	Cora Craig,[a] Canadian Fitness and Lifestyle Research Institute Dr. Yang Mao,[b] Health and Welfare Canada
Project coordination	Elizabeth Coppock[a] and Maureen Carpenter,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1990-004;[a] 1996-013[b]
Publications	Villeneuve PJ, Morrison HI, Craig CL, Schaubel DE. Physical activity and risk of dying: Results from the Canada Fitness Survey Cohort. *Epidemiology* 1998; 9(6): 626-631. Weller I, Corey P. The impact of excluding non-leisure energy expenditure on the relation between physical activity and mortality in women. *Epidemiology* 1998; 9(6): 632-635.

Project	**Pearson Airport Polychlorinated Biphenyls Exposure Mortality Study**
Theme	Occupation – Polychlorinated Biphenyls – PCB – Pearson Airport
Organization(s)	Transport Canada
Description of project	This study was a manual linkage of the individuals involved in the clean-up of polychlorinated biphenyls (PCB) materials following an electrical transformer explosion and fire in 1977 at Pearson Airport.
Years	Death years: 1977–1989 Ontario Cancer Registry years: 1977–1988
Number of records or individuals for the cohort	Small manual search - 41 workers
Main investigator(s)	Dr. M.W. Budarick, Transport Canada
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1991-015
Publications	

Project	**Firefighters – Metro Toronto – Mortality Study**
Theme	Occupation – Firefighters – Toronto
Organization(s)	Industrial Disease Standards Panel
Description of project	The purpose of this study was to determine if professional firefighters experienced increased risk for any specific cause of death.
Years	Death years: 1940–1989
Number of records or individuals for the cohort	5,995 (both sexes) - 5,847 men; 148 women
Main investigator(s)	Dr. Kristan Aronson (formerly L' Abbé), Industrial Disease Standards Panel
Project coordination	Maureen Carpenter, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1990-022
Publications	L'Abbé KJ, Tomlinson GA. *Firefighters in Metropolitan Toronto: Summary of the Mortality Study.* Toronto: Industrial Disease Standards Panel (Occupational Disease Panel). 1992 April 24. IDSP Occasional paper. Aronson KJ, Tomlinson GA, Smith L. Mortality among fire fighters in metropolitan Toronto. *American Journal Industrial Medicine* 1994; 26(1): 89-101. Industrial Disease Standards Panel. *Report to the Workers' Compensation Board on Cardiovascular Disease and Cancer Among Firefighters.* Toronto: Industrial Disease Standards Panel (Occupational Disease Panel); 1994 Sept., IDSP Report No.: 13.

Project	**Census Occupation Data and the Ontario Cancer and Mortality Data Base: A Feasibility Linkage Study**
Theme	Occupation – Census
Organization(s)	Ontario Cancer Treatment and Research Foundation
Description of project	The purpose of this study was to undertake a feasibility study for following up a census-based cohort for cancer incidence and mortality. This allowed the creation of an occupational data base to study the incidence of mortality and cancer by occupation and other socio-economic characteristics in Ontario.
Years	Census years: 1986
Number of records or individuals for the cohort	15,700 (both sexes) aged 25–64 selected from 1986 2B long forms for Ontario - (about 10,125 individuals for the linkage test)
Main investigator(s)	Dr. Lorraine Marrett, The Ontario Cancer Treatment and Research Foundation
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1994-003
Publications	Marrett LD**,** Weir E. *Occupation and Cancer in Ontario: Review of the Options for Establishing a Cancer-occupation Data Base for Ontario. Summary Report.* Toronto; Industrial Disease Standards Panel (ODP) Occasional Paper, 1989 May 24. Marrett LD, Chaudhry R, Fair M, Wilkins R, Weir E. *The Study of the Feasibility of Linking Census Occupation Data and the Ontario Cancer Registry and Mortality Data Base.* Final report for the Occupational Disease Panel, Toronto: Ontario Cancer Treatment and Research Foundation; 1996 April 30.

Project	**Polysar Synthetic Rubber Workers Mortality Study**
Theme	Occupation – Polysar Workers
Organization(s)	McMaster University[a,b] University of Alabama[b,c,d]
Description of project	The purpose of this study was to examine risk factors and the mortality experience of Polysar employees in Sarnia, Ontario and to determine if there was health risks associated with exposure to chemicals or processes used in the production of synthetic rubber. Of particular interest was the mortality and cancer incidence for workers in styrene-butadene polymer production. The cohort file and mortality were subsequently updated. The updated study was the Canadian portion of a combined North American study of synthetic workers sponsored by the U.S. Health Effects Institute. This institute provided scientific information on the health effects of pollutants from motor vehicles and other sources in the environment.
Years	Death years: 1950–1987[a] and in Ontario 1943–1949[a] 1950–1992[b] 1950–1998[c] and in Ontario 1943–1949[c] 1950–2002[d]
Number of records or individuals for the cohort	6,105 men[a] 6,301 men[b] 6,298 men[c] Approximately 2,600 women[d]
Main investigator(s)	Dr. David Muir,[a,b,] Ni Jadon[b] and Jim Julian,[b] McMaster University Dr. Elizabeth Delzell[b,c,d] and Dr. Nalini Sathiakumar,[c,d] University of Alabama
Project coordination	Martha Fair[a] Maureen Carpenter[b] and Hélène Aylwin,[c,d] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1989-021;[a] 1993-017;[b] 2000-018; [c] 2004-013[d]
Publications	Cole P, Delzell E, Acquavella J. Exposure to butadiene and lymphatic and hematopoietic cancer. *Epidemiology* 1993; 4(2): 96-103. Delzell E, Sathiakumar N, Hovinga M, Macaluso M, Julian J, Larson R, Cole P, Muir DC. A follow-up study of synthetic rubber workers. *Toxicology* 1996; 113(1-3): 182-189. Macaluso M, Larson R, Delzell E, Sathiakumar N, Hoving M, Julian J, Muir D, Cole P. Leukemia and cumulative exposure to butadiene, styrene and benzene among workers in the synthetic rubber industry. *Toxicology* 1996; 113(1-3): 190-202.

Project **Polysar Synthetic Rubber Workers Mortality Study**

Sathiakumar N, Delzell E, Hovinga M, Macaluso M, Julian JA, Larson R, Cole P, Muir DC. Mortality from cancer and other causes of death among synthetic rubber workers. *Occupational and Environmental Medicine* 1998; 55(4): 230-235.

Delzell E, Macaluso M, Sathiakumar N, Matthews R. Leukemia and exposure to 1,3 butadiene, styrene and dimethyldithiocarbamate among workers in the synthetic rubber industry. *Chemico – Biological Interactions* 2001; 135-136: 515-534.

Macaluso M, Larson R, Lynch J, Lipton S, Delzell E. Historical estimation of exposure to 1,3-butadiene, styrene, and dimethyldithiocarbamate among synthetic rubber workers. *Journal of Occupational and Environmental Hygiene* 2004; 1(6): 371-390.

Sathiakumar N, Graff J, Macaluso M, Maldonado G, Matthews R, Delzell E. An updated study of mortality among North American synthetic rubber industry workers. *Occupational and Environmental Medicine* 2005 62(12): 822-829.

Graff J, Sathiakumar N, Macaluso M, Maldonado G, Matthews R, Delzell E. Chemical exposures in the synthetic rubber industry and lymphohematopoietic cancer mortality. *Journal of Occupational and Environmental Medicine* 2005; 47(9): 916-932.

Project	**Manitoba Workers Exposed to Polychlorinated Biphenyls Mortality and Cancer Incidence Study**
Theme	Occupation – Polychlorinated Biphenyls – PCB – Manitoba
Organization(s)	University of Manitoba
Description of project	The purpose of this study was to examine the risk factors and mortality experiences of employees who were exposed to polychlorinated biphenyls (PCB's) while working for Federal Pioneer in Winnipeg also of interest was to assess whether occupational exposure to PCB's increase the risk of cancer and whether a dose-response relationship could be demonstrated.
Years	Death years: 1950–1989[a] 1990–1995[b] Cancer years: 1969–1995[b] (1994 for Quebec)
Number of records or individuals for the cohort	2,224 men[a] - 309 persons with no birth dates 2,222 men[b]
Main investigator(s)	Dr. Annalee Yassi, University of Manitoba
Project coordination	Deborah Jordan Simpson,[a] Martha Fair[b] and Hélène Aylwin,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1988-003;[a] 1998-014[b]
Publications	Yassi A, Tate R, Fish D. Cancer mortality in workers employed at a transformer manufacturing plant. *American Journal of Industrial Medicine* 1994; 25(3): 425-437. Yassi A, Tate R, Fish D. Commentary: Cancer mortality at a transformer manufacturing plant: cohort construction and analysis. *American Journal of Industrial Medicine* 1995; 27(6): 911-913. Yassi A, Tate R, Routledge M. Cancer incidence and mortality in workers employed at a transformer manufacturing plant: Update to a cohort study. *American Journal of Industrial Medicine* 2003; 44(1); 58-62.

Project	**Stirling County Mortality Study**
Theme	Mental Health – Psychiatry – Stirling County
Organization(s)	Psychiatric Epidemiology Unit, Massachusetts General Hospital
Description of project	The purposes of this study were: a) to provide mortality information to help determine the epidemiology of psychiatric disorders, and b) to investigate predictor variables for mortality risk within a large longitudinal study in psychiatric epidemiology (with adult population samples taken in 1952, 1970, and 1992). The overall purpose for this study was to provide a better understanding of psychiatric disorders in order to improve treatment and reduce mortality. This cohort has been followed up earlier for mortality in the province of Nova Scotia. The Stirling County Study now provides a longitudinal perspective of the epidemiology of psychiatric disorders in an adult population in Atlantic Canada.
Years	Death years: 1968–1989[a] 1950–1992[b]
Number of records or individuals for the cohort	2,346 (both sexes)[a] - 1,098 men; 1,248 women 2,701 (both sexes)[b] - 1,287 men; 1,414 women
Main investigator(s)	Dr. Jane Murphy, Psychiatric Epidemiology Unit, Massachusetts General Hospital
Project coordination	Martha Fair[a] and Maureen Carpenter,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1900-075;[a] 1991-026[b]
Publications	Murphy JM, Monson RR, Olivier DC, Sobol AM, Leighton AH. Affective disorders and mortality. A general population study. *Archives of General Psychiatry* 1987; 44(5): 473-480. Murphy JM, Monson RR, Olivier DC, Sobol AM, Pratt LA, Leighton AH. Mortality risk and psychiatric disorders. Results of a general physician survey. *Social Psychiatry and Psychiatric Epidemiology* 1989; 24(3): 134-142. Horton NJ, Laird NM, Murphy JM, Monson RR, Sobel AM, Leighton A. Multiple informants: mortality associated with psychiatric disorders in the Stirling County Study. *American Journal of Epidemiology* 2001; 154(7): 649-656.

Project	**Young Offenders Mortality Study**
Theme	Offenders – Young Offenders
Organization(s)	University of Guelph
Description of project	The purpose of this study was to determine the vital status of 17 out of 150 young offenders involved in a study to determine the effectiveness of rehabilitation program in training schools for young offenders. A small manual search of the death microfiche was undertaken.
Years	Death years: 1971–1987
Number of records or individuals for the cohort	17 records
Main investigator(s)	University of Guelph
Project coordination	Elizabeth Coppock, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1989-029
Publications	

Project	**AIDS Registry Mortality Study**
Theme	AIDS
Organization(s)	Health and Welfare Canada
Description of project	The purpose of this study was to validate existing AIDS data and to characterize migration patterns of persons with AIDS in Canada during the period from AIDS diagnosis to death. A pilot feasibility study was first conducted using 1989 mortality data.
Years	Death years: 1989[a] 1982–1992[b]
Number of records or individuals for the cohort	Approximately 6,100 (both sexes)[a] Approximately 10,300 (both sexes)[b]
Main investigator(s)	Dr. Maura N. Ricketts, Health Canada
Project coordination	Diane Muralt[a] and Martha Fair,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1990-015;[a] 1995-024[b]
Publications	Hogg RS, Health KV, Strathdee SA, Montaner JS, O'Shaughnessy MV, Schechter MT. HIV/AIDS mortality in Canada: evidence of gender, regional and local area differentials. *AIDS (London, England)* 1996; 10(8): 889-894. Hogg RS, Whitehead J, Ricketts M, Health KV, Ng E, Lalonde P, Schechter MT. Patterns of geographic mobility of persons with AIDS in Canada from time of AIDS index diagnosis to death. *Clinical and Investigative Medicine* 1997; 20(2): 77-83. Whitehead J. *Reporting Completeness of the Federal AIDS Case Reporting Surveillance System (ACRSS) by Means of Computerized Record Linkage with the Canadian Mortality Data Base and Capture-Recapture Methods* (MSc dissertation). Ottawa: University of Ottawa; 1997.

Project	**Air Canada Pilots Mortality Study**
Theme	Occupation – Pilots
Organization(s)	Cancer Control Agency of British Columbia
Description of project	The purpose of this study was to determine if airline pilots were at increased risk of cancer from exposure to carcinogens or mutagens, particularly ionizing radiation, ozone and jet engine emissions. This was a small manual search of the death microfiche was undertaken. The main purpose was to ensure that there were not deaths among persons lost to follow-up.
Years	Death years: 1950–1992
Number of records or individuals for the cohort	Total cohort 2,740 men - 161 individuals were searched
Main investigator(s)	Dr. Pierre Band, British Columbia Cancer Control Agency
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1992-014
Publications	Band PR, Spinelli JJ, Ng VTY, Moody J, Gallagher RP. Mortality and cancer incidence in a cohort of commercial airline pilots. *Aviation, Space, and Environmental Medicine* 1990; 61(4): 299-302. Band PR, Le ND, Fang R, Deschamps M, Coldman AJ, Gallagher RP, Moody J. Cohort study of Air Canada pilots: mortality, cancer incidence, leukaemia risks. *American Journal of Epidemiology* 1996; 143(2): 137-143.

Project	**Suicide Attempts Survival Analysis Study**
Theme	Mental Health – Suicide
Organization(s)	Calgary General Hospital
Description of project	The purpose of this study was to examine the survival rates and suicide mortality over a 12 year period after a first-ever admission for a suicide attempt.
Years	Death years: 1979–1989
Number of records or individuals for the cohort	876 full cohort and 300 were searched (first-ever inpatient hospital admissions for a suicide attempt admitted between 1979 and 1981.)
Main investigator(s)	Heather Holley, Calgary General Hospital
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1992-014
Publications	Holley HL, Fick G, Love EJ. Suicide following an inpatient hospitalization for a suicide attempt: A Canadian follow-up study. *Social Psychiatry and Psychiatric Epidemiology* 1998; 33(11): 543-551.

Project	**British Columbia Sawmill Workers Mortality and Cancer Incidence Study**
Theme	Occupation – Sawmill Workers – Sawmills – British Columbia
Organization(s)	University of British Columbia
Description of project	The original purpose of this study was to examine the health effects of chlorophenate fungicides, which are no longer used in British Columbia sawmills. The cancers of interest *a priori* were soft-tissue sarcoma, non-Hodgkin's lymphoma, Hodgkin's disease, lung cancer, and nasal cancer. Other issues including wood dust, noise accidental deaths, stress, unemployment and retraining were examined in this British Columbia sawmill cohort. A number of epidemiologic and exposure assessment studies were carried out in the province for this cohort.
Years	Death years: 1950–1990[a] 1991–1995[b] 1950–1995[c] Cancer years: 1969–1995[c] (1995 Quebec data not available)
Number of records or individuals for the cohort	26,506 men[a,b] 28,903 (both sexes)[c] - 28,699 men; 204 women
Main investigator(s)	Dr. Kay Teschke,[a,b] University of British Columbia Dr. P. Demers,[c] University of British Columbia
Project coordination	Martha Fair[a,b,c] and Hélène Aylwin,[c] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1992-015;[a] 1993-015;[b] 1997-025[c]
Publications	Hertzman C, Teschke K, Ostry A, Hershler R, Dimich-Ward H, Kelly S, Spinelli JJ, Gallagher RP, McBride M, Marion SA. Mortality and cancer incidence among sawmill workers exposed to chlorophenate wood preservatives. *American Journal of Public Health* 1997; 87(1): 71-79. Teschke K, Ostry A, Hertzman C, Demers PA, Barroetavena MC, Davies HW, Dimich-Ward H, Heacock H, Marion SA. Opportunities for a broader understanding of work and health: multiple uses of an occupational cohort database. *Canadian Journal of Public Health* 1998; 89(2): 132-136. Davies HW, Teschke K, Kennedy SM, Hertzman C, Demers PA. Occupational exposure to noise and increased risk of acute myocardial infarction death. *Epidemiology* 2005; 16(1): 25-32.

Project	**Heart Valve Fractures Mortality Study**
Theme	Heart – Heart Valve Fractures
Organization(s)	Epidemiology Resources Incorporated
Description of project	The purpose of this study was to help identify predictors of heart valve fractures in patients. The case-control study was of convexo-concave (CC) 60 degrees valves implanted in patients in the United States and Canada and manufactured between January 1, 1979 and March 31, 1984.
Years	Death years: 1979–1990
Number of records or individuals for the cohort	150 individuals (both sexes)
Main investigator(s)	Dr. Anne Prener, Epidemiology Resources Inc.
Project coordination	Maureen Carpenter, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1993-004
Publications	Walker AM, Funch DP, Sulsky SI, Dreyer NA. Patient factors associated with strut fracture in Bjork-Shiley 60 degrees convexo-concave heart valves. *Circulation* 1995; 92(11): 3235-3239.

Project	**Trends in 5-Year Mortality of Hospital Survivors of Myocardial Infarctions (MONICA)**
Theme	Heart – Monitoring Cardiovascular Disease – MONICA
Organization(s)	Dalhousie University, Division of Cardiology
Description of project	The primary objective of this study was to examine whether the five-year survival of patients with acute myocardial infarction (AMI) increased during the study period. The overall purpose was to make informed decisions about which acute-care measures were associated with a change in mortality. This could lead to a more targeted use of treatments and medicine or a re-assessment of their use in general to improve the health outcomes of AMI patients. The World Health Organization monitoring trends and determinants of cardiovascular disease (MONICA) Project is a study that monitors deaths due to coronary heart disease, acute myocardial infarction, coronary care, and risk factors in men and women aged 35 to 64 in defined communities.
Years	Death years: 1984–1998
Number of records or individuals for the cohort	3,900 individuals (both sexes) - 2,700 men; 1,200 women
Main investigator(s)	Dr. Iqbal R. Bata and Dr. Hermann Wolf, Dalhousie University, Division of Cardiology
Project coordination	Dores Zuccarini, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	2001-015
Publications	Tunstall-Pedoe H, Kuulasmaa K, Amouyel P, Arveiler D, Rajakangas AM, Pajak A. Myocardial infarction and coronary deaths in the World Health Organization MONICA Project. Registration procedures, event rates, and case-fatality rates in 38 populations from 21 countries and four continents. *Circulation* 1994; 90(1): 583-612. Bata IR, Eastwood BJ, Gregor RD, Guernsey JR, Klassen GA, MacKenzie BR, Wolf HK. Decreasing mortality from acute myocardial infarctions effect of attack rates and cases severity. *Journal of Clinical Epidemiology* 1997; 50(7): 787-791. Bata IR, Gregor RD, Eastwood BJ, Wolf HK. Trends in the incidence of acute myocardial infarction between 1984 and 1993 - The Halifax County MONICA Project. *Canadian Journal of Cardiology* 2000; 16(5): 589-595.

Project	**Acute Myocardial Infarction Patients, Canada Versus the United States: Impact of Early Revascularization on Long-Term Mortality**
Theme	Heart – Revascularization
Organization(s)	Duke Clinical Research Institute, Duke University
Description of project	The primary objective of this study was to examine if there are five-year survival differences between Canada and American patients with acute myocardial infarctions in the GUSTO-I cohort.
Years	Death years: 1991–1997
Number of records or individuals for the cohort	2,900 Canadian patients (both sexes) - 2,200 men, 700 women
Main investigator(s)	Dr. Padma Kaul and Dr. Daniel B. Mark, Duke Clinical Research
Project coordination	Dores Zuccarini, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	2001-002
Publications	Kaul P, Armstrong PW, Chang WC, Naylor CD, Granger CB, Lee KL, Peterson ED, Califf RM, Topol EJ, Mark ED. Long-term mortality of patients with acute myocardial infarction in the United States and Canada: comparison of patients enrolled in Global Utilization of Streptokinase and t-PA for Occluded Coronary Arteries (GUSTO)-I. *Circulation* 2004; 110(13): 1754-1760.

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Project	**Left Ventricular Dysfunction (SOLVD and X-SOLVD) Patients Mortality Study**
Theme	Heart – Studies of Left Ventricular Dysfunction – SOLVD – Extended Studies of Left Ventricular Dysfunction – X-SOLVD
Organization(s)	University of North Carolina
Description of project	The primary aim of this study was to examine the long-term mortality of individuals in the SOLVD and X-SOLVD cohorts who were given enalapril during the clinical study. The study explored the relationships between early enalapril treatment and life expectancy for the population. The hypothesis was whether or not the early use of enalapril treatment had an affect on long-term mortality. In the studies of left ventricular dysfunction enalapril reduced mortality in patients with symptomatic but not asymptomatic left ventricular systolic dysfunction. The study was randomized, double-blind, and placebo-controlled. The extended follow-up of SOLVD (X-SOLVD) was to establish if the mortality reduction with enalapril among patients with heart failure was sustained, and whether a subsequent reduction in mortality would emerge among those with asymptomatic ventricular dysfunction.
Years	Death years: 1988–1990[a] - manual search 1986–1998[b] - computer search
Number of records or individuals for the cohort	1,046 individuals (both sexes, Canada)[a] 6,800 U.S. and Canada 750 individuals (both sexes)[b] of whom 250 were from the first linkage.
Main investigator(s)	Dr. C. E. Davis,[a] University of North Carolina Dr. Philip Jong[b] and Dr. Shrikant Bangdiwata,[b] University of North Carolina
Project coordination	Maureen Carpenter[a] and Dores Zuccarini,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1993-010;[a] 2001-003[b]
Publications	The SOLVD Investigators. Effect of enalapril on survival in patients with reduced left ventricular ejection fractions and congestive heart failure. *New England Journal of Medicine* 1991; 325(5): 293-302. The SOLVD Investigators. Effect of enalapril on mortality and the development of heart failure in asymptomatic patients with reduced left ventricular ejection fractions. *New England Journal of Medicine* 1992; 327(10): 685-691. Jong P, Yusaf S, Rousseau MF, Ahn SA, Bangdiwala SI. Effect of enalapril on 12-year survival and life expectancy in patients with left ventricular systolic dysfunction: a follow-up study. *Lancet* 2003; 361(9372): 1843-1848.

Project	**Child Cancer Historical Cohort Mortality Study**
Theme	Cancer – Children
Organization(s)	Health Canada
Description of project	The purpose of this study was to create an analysis file for all children diagnosed in Canada with cancer and to identify resulting childhood deaths.
Years	Death years: 1969–1991 Cancer years: 1969–1988
Number of records or individuals for the cohort	18,400 (both sexes)
Main investigator(s)	Dr. Yang Mao and Dr. Howard Morrison, Health Canada
Project coordination	Maureen Carpenter, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1993-016
Publications	Hutchcroft S, Clarke A, Mao Y, Desmeules M, Dryer D, Hodges M, Leclerc J-M, McBride M, Pelletier W, Yanofsky R. *THIS BATTLE WHICH I MUST FIGHT: Cancer in Canada's Children and Teenagers*. Ottawa: Supply and Services Canada, 1995.

Project	**British Columbia Pulp and Paper Workers Mortality and Cancer Incidence Study**
Theme	Occupation – Pulp and Paper – British Columbia
Organization(s)	British Columbia Cancer Agency
Description of project	The purpose of this study was to provide data on significant risk factors affecting the pulp and paper industry. The International Agency for Research on Cancer (IARC) was conducting an international epidemiological study of workers in the pulp and paper industry involving several countries.
Years	Death years: 1950–1992 Cancer years: 1969–1993
Number of records or individuals for the cohort	31,275 men; 35 women
Main investigator(s)	Dr. Pierre Band, British Columbia Cancer Agency
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1994-018
Publications	Band PR, Le ND, Fang R, Threlfall WJ, Asktrakianakis G, Anderson JT, Keefe A, Krewski D. Cohort mortality study of pulp and paper mill workers in British Columbia, Canada. *American Journal of Epidemiology* 1997; 146(2): 186-194. Kauppinen T, Teschke K, Savela A, Kogevinas M, Boffetta P. International data base of exposure measurements in the pulp, paper and paper products industries. *International Archives of Environment Health* 1997; 70(2): 119-127. Band PR, Le ND, Fang R, Astrakianakis G, Bert J, Keefe A, Krewski D. Cohort cancer incidence among pulp and paper mill workers in British Columbia. *Scandinavian Journal of Environmental Health* 2001; 27(2): 113-119. Korhonen K, Liukkonen T, Ahrens W, Astrakianakis G, Boffetta P, Burdorf A, Heederik D, Kauppinen T, Kogevinas M, Osvoll P, Rix BA, Saalo A, Sunyer J, Szadkowska-Stanczyk I, Teschke K, Westberg H, Widerkiewiez K. Occupational exposure of chemical agents in the paper industry. *International Archives of Occupational and Environmental Health* 2004; 77(7): 451-460. Epub 2004 Sept 10.

Project	**Ontario and Manitoba Pulp and Paper Industries Mortality Study**
Theme	Occupation – Pulp and Paper – Ontario and Manitoba
Organization(s)	Ontario Ministry of Labour
Description of project	The purpose of this study was to look at specific causes of death which were found to be significantly increased among pulp and paper workers and then to use the results in nested case-control studies to provide further answers in terms of exposure-response relationships.
Years	Death years: 1950–1995[a,b]
Number of records or individuals for the cohort	27,742 individuals (both sexes) - 26,372 men; 1,370 women - Ontario Pulp and Paper workers 2,261 individuals (both sexes) - 2.136 men; 1,495 women - Manitoba Pulp and Paper workers 30,003(total) - 28,508 men; 1,495 women
Main investigator(s)	Dr. Murray Finklestein, Ontario Ministry of Labour
Project coordination	Martha Fair[a,b] and Dores Zuccarini,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1993-033;[a] 1996-024[b]
Publications	Teschke K, Ahrens W, Andersen A, Boffetta P, Fincham S, Finkelstein M, Hennegerger P, Kauppinnen T, Kogevinas M, Korhonen K, Liss G, Liukkonnen T, Osvoll P, Salvela A, Szadkowska-Stanczyk I, Westberg H, Widerkiewiez K. Occupational exposure to chemical and biological agents in the nonproduction departments of pulp, paper, and paper product mills: an international study. *American Industrial Hygiene Association Journal* 1999; 60(1): 73-83.

Project	**Maternal Deaths and Fetal and Infant Outcome Study in Canada: Feasibility of the Use of the Indian Registries Population**
Theme	Infant Mortality – Indians
Organization(s)	Health Canada
Description of project	The purpose of this feasibility project was to determine whether it was possible to identify maternal deaths and infant outcomes of registered Indians to help monitor and analyze health determinations and outcomes.
Years	Birth years: 1985–1995
Number of records or individuals for the cohort	203,000 women born 1937–1982 (700 from 1987–1993 who died within 1 year of giving birth) 60,000 infants born 1985–1995
Main investigator(s)	Dr. Linda Bartlett, Health Canada
Project coordination	Martha Fair and Hélène Aylwin, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1998-009
Publications	

Project	**Rheumatoid Arthritis Azathioprine Registry Mortality and Cancer Incidence Study**
Theme	Rheumatoid Arthritis – Medical Treatment – Azathioprine – AZA
Organization(s)	Toronto General Hospital and Glaxo Wellcome
Description of project	The purpose of this study was to estimate the risk of malignancy and mortality in persons with rheumatoid arthritis treated with azathioprine.
Years	Death years: 1982–1995 Cancer years: 1969–1995
Number of records or individuals for the cohort	1,395 (both sexes)
Main investigator(s)	Dr. M.B. Urowitz, Toronto General Hospital
Project coordination	Hélène Aylwin, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1998-011
Publications	Matteson EL, Hickey AR, Maguire L, Tilson HH, Urowitz MB. Occurrence of neoplasia in patients with rheumatoid arthritis enrolled in a DMARD Registry. Rheumatoid Arthritis Azathioprine Registry Steering Committee. *Journal of Rheumatology* 1991; 18(6): 809-814.

Project	**Ontario and Quebec Breast Implant Mortality and Cancer Incidence Study**
Theme	Cancer – Breast Implant – Ontario and Québec
Organization(s)	Health Canada
Description of project	The purpose of this study was to determine the risk of cancer, mortality and other outcomes in women with cosmetic breast implants. This was a collaborative population-based study with investigators from Laval University and Cancer Care Ontario. The cohort was to be compared with a control group of women who received other elective cosmetic surgery at the same practices, and then to the general female population, identified from cancer and death registry data.
Years	Death years: 1974–1997 Cancer years: 1974–1997
Number of records or individuals for the cohort	43,406 women (13,428 Ontario and 29,978 Quebec during the period 1974–1989)
Main investigator(s)	Dr. Yang Mao, Health Canada Dr. Eric Holowaty, Cancer Care Ontario Dr. Jacques Brisson, Laval University
Project coordination	Maureen Carpenter, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1998-018
Publications	Notice to Physicians: Ontario and Quebec breast implant study. *Canadian Family Physician* 1996; 42: 2219-2220. Brisson J, Holowaty EJ, Villeneuve PJ, Xie L, Ugnat AM, Latulippe L, Mao Y. Cancer incidence in a cohort of Ontario and Quebec women having bilateral breast augmentation. *International Journal of Cancer*, 2005 December 27. (Epub ahead of print)

Project	**Nova Scotia Internal Linkage and Death Clearance**
Theme	Cancer – Death Clearance – Nova Scotia
Organization(s)	Health Canada Nova Scotia Cancer Foundation Statistics Canada
Description of project	The purpose of this study was to internally link the Nova Scotia Cancer registry by person and to link the registry to mortality.
Years	Death years: 1969–1989
Number of records or individuals for the cohort	Approximately 75,000 (both sexes)
Main investigator(s)	Dr. Yang Mao, Health and Welfare Canada
Project coordination	Mary Werner, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1992-001
Publications	Fair ME, Newcombe HB. *Death Clearance in Provincial Cancer Registries.* Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 1989. Report No.: OEHRS–6.

Project	**Canadian Cancer Data Base Death Clearance**
Theme	Cancer – Death Clearance – Canada
Organization(s)	Statistics Canada[a,b] Health Canada[c]
Description of project	The purpose of the national historical death clearance was to internally link the 1969 to 1991 Canadian Cancer Data Base by person and to link the file to mortality. Additional linkages are done routinely, starting with 1992 cancer incidence data, to enable the efficient operation of the ongoing cancer database by identifying duplicate records, by combining records belonging to the same patient, and by carrying out a death clearance.
Years	1992–2001[a,b] 1969–1991[c]
Number of records or individuals for the cohort	1,664,867 records (both sexes)[a,b] for 1992-2001 relating to 1,247,927 individuals (excluding Quebec 2001) 2,637,533 records (both sexes)[c] for 1969-1991 relating to about 1.9 million individuals
Main investigator(s)	Dr. Yang Mao,[c] Health Canada
Project coordination	Jane Gentleman[a] and Rosemary Campbell,[b] Health Statistics Division, Statistics Canada Maureen Carpenter,[c] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1991-018;[a] 1995-007;[b] 1998-015[c]
Publications	Fair ME, Newcombe HB. *Death Clearance in Provincial Cancer Registries.* Ottawa: Statistics Canada, Occupational and Environmental Health Research Section, Health Statistics Division, 1989; Report No.: OEHRS–6. LaBillois T, Wysocki M, Grabowiecki FJ. A comparison of direct match and probabilistic linkage in the death clearance of the Canadian Cancer Registry. In: Alvey W, Jamerson B, editors. *Record Linkage Techniques – 1997: Proceedings of an International Workshop and Exposition*; Arlington, Virginia, 1997 March 20-21. Washington DC: Federal Committee on Statistical Methodology, Office of Management and Budget; 1997. p. 203-211. Ellison LF, Gibbons L, Canadian Cancer Survival Analysis Group. Five-year survival from prostate, breast, colorectal and lung cancer. *Health Reports* (Statistics Canada, Catalogue 82-003) 2001; 13(1): 23-34.

Project **Canadian Cancer Data Base Death Clearance**

Ellison LF, Gibbons L. Leading cancer – changes in five-year relative survival. *Health Reports* (Statistics Canada, Catalogue 82-003) 2004; 15(2): 19-32.

Ugnat AM, Xie L, Semenciw R, Waters C, Mao Y. Survival patterns for the top four cancers in Canada: the effects of age, region and period. *European Journal of Cancer Prevention* 2005; 14(2): 91-100.

Project	**Canadian Organ Replacement Register (CORR) Mortality and Cancer Incidence Study**
Theme	Organ Replacement – Canadian Organ Replacement Register – CORR
Organization(s)	Health Canada Canadian Institute for Health Information
Description of project	The purpose of this study was to assess the risk of death and cancer among patients in the Canadian Organ Replacement Registrar (CORR). The CORR records, analyses and reports on the level of activity and outcomes of vital organs transplantation and renal dialysis activities in Canada.
Years	Death years: 1981–1999[a,b] Cancer years: 1969–1999[a,b]
Number of records or individuals for the cohort	46,648 individuals (both sexes) for the period of 1981–1994
Main investigator(s)	Dr. Yang Mao,[a,b] Health Canada and K. Badovinac,[b] Canadian Institute for Health Information
Project coordination	Maureen Carpenter[a] and Dores Zuccarini,[a,b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1998-019;[a] 2004[b] - an extension of the retention period for linked files.
Publications	Copleston P, Fenton S, Kjellstrand C, Arbus G, Corman J, Jeffery J, Menkis A. The Canadian Organ Replacement Register. *Health Reports* (Statistics Canada, Catalogue 82-003) 1994: 6(4): 457-468. Desmeules M, Schaubel D, Fenton SS, Mao Y. New and prevalent patients with end-stage renal disease in Canada. A portrait of the year 2000. *American Society for Artificial Internal Organs Journal* 1995; 41(2): 230-233. Fenton S, Desmeules M, Copleston P, Arbus G, Froment D, Jeffery J, Kjellstrand C. Renal replacement therapy in Canada: a report from the Canadian Organ Replacement Register. *American Journal of Kidney Disease* 1995; 25(1): 134-150. McAlister VC, Badovinac K. Transplantation in Canada: report of the Canadian Organ Replacement Register. *Transplantation Proceeding* 2003; 35(7): 2428-2430.

Project	**Spinal Cord Injury Mortality Study**
Theme	Spinal Cord – Injury
Organization(s)	Lyndhurst Hospital
Description of project	The purpose of this study was to offer information about independence and life satisfaction over the lifespan for individuals with traumatic spinal cord injury. The study used the health expectancy methodology to estimate expectations of the remaining years of life that may be spent in states of independence and satisfaction with life. The individuals in the study had incurred a spinal cord injury between the ages of 25 and 34, between the years 1945 and 1990 in central and south-eastern Ontario.
Years	Death years: 1945–1992[a] 1945–1996[b]
Number of records or individuals for the cohort	3,050 - complete cohort 277 (both sexes)[a] - 242 men; 35 women 475 (both sexes)[b] - 415 men; 60 women
Main investigator(s)	Mary Ann McColl,[a] Lyndhurst Hospital Janice Walker,[a,b] Lyndhurst Hospital
Project coordination	Martha Fair[a] and Hélène Aylwin,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1994-011;[a] 1999-005[b]
Publications	Walker J, McColl MA, Wilkins R, Corey P, Stirling P. Life expectancy in a disabled population. In: Robine JM, Mathers CD, Bone MR, Romieu I, editors. *Calculation of Health Expectancies: Harmonization, Consensus Achieved and Future Perspectives. Colloque INSERM 226.* Paris, France: John Libbey Eurotext and Les Editions INSERM; 1993. p. 245-253. McColl MA, Walker J, Stirling P, Wilkins RM Corey P**.** Expectations of life and health among spinal cord injured adults. *Spinal Cord* 1997; 35(12): 818-828. McColl MA, Corey P, Stirling P, Walker J, Wilkins R. Expectations of independence and life satisfaction among aging spinal cord injured adults*. Disability and Rehabilitation* 1999; 21(5-6): 231-240. Walker J. *The Markov Process as a Method of Evaluating health Expectancy Following Spinal Cord Injury*. (Ph. D. dissertation). Toronto: University of Toronto, School of Public Health Sciences, Department of Community Health; 2002.

Project	**Ontario Construction Workers and Pipefitters: Mortality and Workplace Exposures Study**
Theme	Occupation – Construction Workers – Pipefitters – Ontario
Organization(s)	Ontario Ministry of Labour
Description of project	The purpose of this study was to determine if construction workers were at an increased risk of occupational mortality and cancer incidence. During the study, visits were made to a variety of construction sites in Ontario in order to identify factors that affected occupational exposure of construction workers and to conduct a range-finding exercise for common occupational contaminants.
Years	Death years: 1960–1999
Number of records or INVIDUALS FOR THE cohort	124,145 (both sexes) - 123,034 men; 1,111 women
Main investigator(s)	Dr. Murray Finklestein, Ontario Ministry of Health
Project coordination	Dores Zuccarini, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	2001-021
Publications	Kuntz LA, Verma DK, Sahai D. Coal tar pitch volatiles and polycyclic aromatic hydrocarbons exposures in expansion joint-making operations on a construction site: a case study. *Applied Occupational and Environmental Hygiene* 2003; 18(7): 545-552. Verma DK, Kurtz LA, Sahai D, Finkelstein MM. Current chemical exposures among Ontario construction workers. *Applied Occupational and Environmental Hygiene* 2003; 18(12): 1031-1047. Finkelstein MM, Verma DK, Sahai D, Stefov E. Ischemic heart disease mortality among heavy equipment operators. *American Journal of Industrial Medicine* 2004; 46(1): 16-22. Verma DK, Sahai D, Kurtz LA, Finkelstein MM. Current man-made mineral fibres (MMMF) exposures among Ontario construction workers. *Journal of Occupation and Environmental Hygiene* 2004; 1(5): 306-318. Finkelstein MM, Verma DK. A cohort study of mortality among Ontario pipe trades workers. *Occupational and Environmental Medicine* 2004; 61(9): 736-742.

Project	**Canadian Immigrant Health: Patterns of Mortality and Cancer Incidence Study**
Theme	Immigrants
Organization(s)	Health Canada Statistics Canada
Description of project	The purpose of this study was to determine if patterns of cancer and mortality differed between immigrants, immigrant subgroups, refugees and Canadians. The immigrant cohort consisted of samples of refugees and non-refugees selected from all immigrants to Canada during the period 1980 to1990.
Years	Death years: 1980–1998 Cancer years: 1989–1998
Number of records or individuals for the cohort	Refugee sample: 128,962 (both sexes) Non-refugee sample: 241,010 (both sexes)
Main investigator(s)	Dr. Yang Mao, Centre for Chronic Disease Prevention and Control, Health Canada
Project coordination	Bryan Lafrance, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	2001-017
Publications	Payne J, Desmeules M, Gold J, Cao Z, Vissandjee B, Fair M, Mao Y. Gender relevant determinants of mortality in female immigrants. *Annals of Epidemiology* 2002; 12(7): 533-534. Gold J, DesMeules M. National Symposium on Immigrant Health in Canada: an overview. *Canadian Journal of Public Health* 2004; 95(3): I3. DesMeules M, Gold J, Kazanjian A, Manuel D, Payne J, Vissandee B, McDermott S, Mao Y. New approaches to immigrant health assessment. *Canadian Journal of Public Health* 2004; 95(3): I22-I26.

Project	**Canadian Persian Gulf War Veterans Mortality and Cancer Incidence Study**
Theme	Occupation – Gulf War – Persian Gulf War – Veterans
Organization(s)	Department of Defence
Description of project	The purpose of this study was to compare the mortality and cancer experience of all Canadian military members deployed to the 1990 to 1991 Persian Gulf War to a military control group who were not deployed and to the Canadian population.
Years	Death years: April 1,1991–December 31,1999 Cancer years: April 1,1991–December 31,1999
Number of records or individuals for the cohort	11,210 (both sexes) - 5,117 deployed group and 6,093 in the non-deployed group.
Main investigator(s)	Dr. Maureen Carew, Dr. Jeff Whitehead and Colonel J.J.R. Bernier, Force Health Protection, Canadian Force Health Services Group, Head Headquarters, Department of National Defence
Project coordination	Bryan Lafrance and Karen Roberts, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	2000-010
Publications	Goss Gilroy Inc. *Health Study of Canadian Forces Personnel Involved in the 1991 Conflict in the Persian Gulf. Vol. 1*. Ottawa: Goss Gilroy Inc; 1998. Prepared for: Gulf War Illness Advisory Committee, Department of National Defence. Available at: http://www.forces.gc.ca/site/Reports/Health/vol1_TOC_e.asp. Accessed 2005 November 4. Statistics Canada. Canadian Persian Gulf Cohort Study: Report Summary (Catalogue no. for HTML version 82-580-XWE and for PDF version 82-580-XIE) Ottawa: Minister of Industry; 2005. Available at: http://www.statcan.ca/bsolc/english/bsolc?catno=82-580-X Accessed 2005 November 9.

Project	**Alcan British Columbia, a Study of Mortality and Cancer Incidence in British Columbia Aluminum Workers**
Theme	Occupation – Alcan Workers – British Columbia
Organization(s)	British Columbia Cancer Agency
Description of project	The purpose of this study was to provide valuable information which can lead to safer working and environmental conditions for the workers in the aluminium industry and for the population in general. The long-term nature of this study will provide more accurate data on the deaths due to cancer and on significant risk factors which could lead the industry to improving its processes, developing appropriate preventive strategies and reducing and controlling exposure to hazardous carcinogens. An earlier study was done provincially on mortality and cancer incidence.
Years	Death years: 1954–1999 Cancer years: 1969-–999
Number of records or individuals for the cohort	About 7,068 employees (both sexes) - 6,455 men; 613 women
Main investigator(s)	Dr. Nhu Le, Senior Scientist/Biostatistician, British Columbia Cancer Agency
Project coordination	Hélène Aylwin, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	2002-018
Publications	Spinelli JJ, Band PR, Svirchev LM, Gallagher RP. Mortality and cancer incidence in aluminium reduction plant workers. *Journal of Occupational Medicine* 1991; 33(11): 1150-1155. Friesen MC, Demers PA, Spinelli JJ, Le ND. Validation of a semi-quantitative job exposure matrix at a Söderberg aluminum smelter. *The Annals of Occupational Hygiene* 2003; 47(6): 477-484. Aylwin H, Marjama L, Lalonde P. *Alcan British Columbia – A Study of Mortality and Cancer Incidence in British Columbia Aluminum Workers.* Ottawa: Statistics Canada, Health Statistics Division, Occupational and Environmental Health Research Section; 2005. Report prepared for the British Columbia Cancer Agency.

Project	**Alcan Québec, a Study of Mortality in Québec Aluminum Smelter Workers**
Theme	Occupation – Alcan Workers – Québec
Organization(s)	Safety Health Environment International Consultants Corporation (for Alcan Inc.)
Description of project	The purposes of this study were to determine: a) if the mortality from specific causes, in particular those identified as possible concerns in the original study of the Quebec cohorts, were still increased in comparison to Quebec provincial rates; b) if cancer mortality risks which have been suggested as being increased in aluminium smelter workers on the basis of other studies, have validity; and c) if the causes of death identified were related to coal tar pitch volatile exposures. The long-term nature of this study will provide more accurate information on the deaths due to cancer and on significant risk factors which could lead the industry to improving its processes, developing appropriate preventive strategies and reducing and controlling exposure to hazardous carcinogens.
Years	Death years: 1950–1999
Number of records or individuals for the cohort	17,722 individuals (both sexes) - 16,744 men; 978 women
Main investigator(s)	Dr. Graham Gibbs, Safety Health Environment International Consultants Corporation
Project coordination	Martha Fair, Maureen Carpenter and Dores Zuccarini, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	2002-003
Publications	Gibbs GW, Horowitz I. Lung cancer mortality in aluminium reduction plant workers. *Journal of Occupational Medicine* 1979; 21(5): 347-353. Gibbs GW. Mortality experience in eastern Canada. In: Hughes JP, editor. *Health Protection in Primary Aluminum Production. Vol.2*; 1981 September. London, England: International Primary Aluminum Institute; 1982 March. p. 56-69. Gibbs GW. Mortality of aluminium reduction plant workers, 1950 through 1997. *Journal of Occupational Medicine* 1985; 27(10): 761-770.

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International Agency for Research on Cancer. *Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs Volume 1 to 42. IARC – Summaries and Evaluations. Aluminum Production (Group 1).* Supplement 7. Lyon, France: IARC; 1987. p. 89.

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Gibbs GW. Estimating residential polycyclic aromatic hydrocarbon (PAH) related lung cancer risks using occupational data. *Annals of Occupational Hygiene* 1997; 41 (Suppl 1): 49-53.

Gibbs GW. Occupational cancer overview: Aluminum reduction. In: Priest ND, O'Donnell TV, editors. *Managing Health in the Aluminium Industry.* London, England: Middlesex University Press; 1999. Chapter 12; p. 135-153.

Gibbs GW. Assessment of community health risks – The case of lung cancer and aluminum smelter emissions. In: Priest ND, O'Donnell TV, editors. *Managing Health in the Aluminium Industry.* London, England: Middlesex University Press; 1999. Chapter 14; p. 160-175.

Armstrong B, Hutchison E, Fletcher T. *Cancer Risk Following Exposure to Polycyclic Aromatic Hydrocarbons (PAHs): A Meta-analysis.* London, England: Health and Safety Executive; 2003. Research Report No.: 068.

Project	**Pediatric Chest Pain Mortality Study**
Theme	Heart – Chest Pain – Children
Organization(s)	Sudbury General Hospital
Description of project	The purpose of this study was to establish the vital status of about 70 children who were lost to follow-up. A small manual search of the death microfiche was undertaken.
Years	Death years: 1987–1989
Number of records or individuals for the cohort	Small manual study - about 70 patients
Main investigator(s)	Dr. Brian H. Rowe, Sudbury General Hospital
Project coordination	Mary Werner, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1991-014
Publications	Rowe BH, Dulberg CS, Peterson RG, Vlad P, Li MM. Characteristics of children presenting with chest pain to a pediatric emergency department. *Canadian Medical Association Journal* 1990; 143(5): 388-394.

Project	**Nurses in British Columbia: A Retrospective Cohort Study of Mortality and Cancer Incidence**
Theme	Occupation – Nurses
Organization(s)	University of British Columbia
Description of project	The purposes of this study were to: a) determine if there was an increased risk in nurses of mortality and incidence of all cancers, as well as specific malignancies, including breast, ovarian, kidney and leukemia, in comparison to the British Columbia population; b) evaluate whether employment in a particular job category and duration of employment is associated with an increased risk of cancer incidence or mortality; and c) determine if there was a dose-response relationship according to duration and intensity of estimated exposure to anæsthetic gases, ionizing radiation and anti-neoplastic drugs. The cohort related to nurses who were members of the registered nurses association of British Columbia between 1974 and 2000.
Years	Death years: 1974–2000 Cancer years: 1969–2000
Number of records or individuals for the cohort	58,000 individuals (both sexes) - 56,000 women; 2,000 men
Main investigator(s)	Dr. Helen Ward, University of British Columbia
Project coordination	Dores Zuccarini, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	2002-021
Publications	

Project	**Poets Mortality Study**
Theme	Occupation – Poets
Organization(s)	California State University
Description of project	The purpose of this study was to determine the vital status of an occupational group of individuals born before 1910. A small manual search of the death microfiche was undertaken.
Years	Death years: 1926–1984
Number of records or individuals for the cohort	Small manual linkage of about 200 individuals
Main investigator(s)	Dr. Arnold T. Schwab, California State University
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1986-020
Publications	

Project	**Transit Worker – Alberta – Mortality Study**
Theme	Occupation – Transit Workers – Alberta
Organization(s)	University of Alberta
Description of project	The purpose of this study was to examine the long-term health risks for transit workers, primarily bus drivers, in the City of Edmonton. The focus here was to determine the causes of death for cases that were potentially lost to follow-up.
Years	Death years: 1927–1987
Number of records or individuals for the cohort	219 subjects, all men from Edmonton for the overall study. Approximately 10 men (Edmonton) - manual search.
Main investigator(s)	T.L. Guidotti, University of Alberta
Project coordination	Elizabeth Coppock and Maureen Carpenter, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1987-025
Publications	Guidotti TL. Mortality of urban transit workers: indications of an excess of deaths by suicide using gas. *Occupational Medicine (London)* 1992; 4(3): 125-128.

Project	**Proctor and Gamble Mortality Study**
Theme	Osteoporosis – Medical Treatment – Risedronate
Organization(s)	Proctor and Gamble
Description of project	The purpose of this study was to investigate the safety and efficacy of risedronate treatment in a cohort of women with postmenopausal osteoporosis.
Years	Death years: 1993–1998
Number of records or individuals for the cohort	435 individuals (both sexes)
Main investigator(s)	Greg Stephenson**,** Proctor and Gamble Pharmaceutical, Canada
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1999-025
Publications	

Project	**Amyotrophic Lateral Sclerosis Mortality Study**
Theme	Sclerosis – Amyotrophic Lateral Sclerosis – ALS
Organization(s)	University of Saskatchewan
Description of project	The purpose of this study was to determine the vital status of a small number of individuals lost to follow-up for a study of amyotrophic lateral sclerosis (ALS).
Years	Small manual search
Number of records or individuals for the cohort	10 records
Main investigator(s)	Dr. Walter Hader, University of Saskatchewan
Project coordination	Martha Fair, Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1991-017
Publications	

Project	**Fetal and Infant Health Study**
Theme	Infant Mortality – Fetal and Infant Health – Canada
Organization(s)	Health Canada[a] Public Health Agency of Canada[b] Statistics Canada[a,b]
Description of project	This project is an ongoing surveillance and analysis of fetal and infant mortality in Canada by maternal and infant characteristics. The mandate of the Canadian Perinatal Surveillance System (CPSS) at Health Canada is to contribute to improved health for pregnant women, mothers, and infants in Canada through ongoing monitoring and reporting on perinatal health determinants and outcomes. The Fetal and Infant Health Study Group (FIHSG) is an essential component of the Canadian Perinatal Surveillance System developed by Health Canada. The FIHSG primarily uses existing data sources for its surveillance efforts, such as the linked birth and infant death file. The long term aim is to improve the effectiveness and efficiency of clinical perinatal care and public health practice and to guide policy development for maternal and infant health.
Years	Birth years: 1985–2000[a] 2001–2005[b] Death years: 1985–2001 - relating to infant deaths[a] 2001–2006 - relating to infant deaths[b] Death years are for all provinces and territories, except for Newfoundland prior 1991. Ontario data for 1985 onwards are not always analyzed due to data quality problems.
Number of records or individuals for the cohort	Infant deaths are linked to livebirths for each calendar year. For example, in 1985**,** there were about 2,400 death records and 368,000 livebirths that were linked, whereas in 2000 there are about 1,700 death records and 328,000 livebirths. Fetal deaths are included on the analysis file.
Main investigator(s)	Dr. Catherine McCourt,[a] Health Canada Dr. Hajnal Malnar-Szakacs,[b] Public Health Agency for Canada
Project coordination	Martha Fair,[a] Hélène Aylwin,[a] and Karen Roberts,[b] Occupational and Environmental Health Research Section, Health Statistics Division, Statistics Canada
Project number(s)	1997-024[a] 2005-003[b]
Publications	Chen J, Fair M, Wilkins R, Cyr M, and the Fetal and Infant Mortality Study Group of the Canadian Perinatal Surveillance System. Maternal education and fetal and infant mortality in Québec. *Health Reports* (Statistics Canada, Catalogue 82-003) 1998; 10(2): 53 – 64.

Project **Fetal and Infant Health Study**

Fair ME, Cyr M, Allen AC, Wen SW, Guyon G, MacDonald RC, and the Fetal and Infant Mortality Study Group of the Canadian Perinatal Surveillance System. *Validation Study for a Record Linkage of Births and Infant Deaths in Canada* (Catalogue No.: 840013XIE). Ottawa: Statistics Canada, 1999.

Joseph KS, Allen A, Kramer MS, Cyr M, Fair M for the Fetal – Infant Mortality Study Group of the Canadian Perinatal Surveillance System. Changes in the registration of stillbirths ‹ 500 g in Canada, 1985-95. *Paediatric and Perinatal Epidemiology* 1999; 13(3): 278-287.

Kramer MS, Demissie K, Yang H, Platt RW, Sauvé R, Liston R for the Fetal and Infant Health Study Group of the Canadian Perinatal Surveillance System. The contribution of mild and moderate preterm birth to infant mortality. *Journal of the American Medical Association* 2000; 284(7): 843-849.

Fair M, Cyr M, Allen AC, Wen SW, Guyon G, MacDonald RC for the Fetal and Infant Health Study Group. An assessment of the validity of a computer system for probabilistic record linkage of birth and infant death records in Canada. *Chronic Diseases in Canada* 2000; 21(1): 8-13.

Wen SW, Kramer MS, Liu S, Dzakpasu S, Sauvé R, for the Fetal and Infant Health Study Group, Canadian Perinatal Surveillance System. Infant mortality by gestational age and birth weight in Canadian provinces and territories, 1990-1994 births. *Chronic Diseases in Canada* 2000; 21(1): 14-22.

Joseph KS, Kramer MS, Allen AC, Cyr M, Fair M, Ohlsson A, Wen SW for the Fetal and Infant Health Study Group of the Canadian Perinatal Surveillance System. Gestational age- and birthweight-specific declines in infant mortality in Canada, 1985-94. *Pediatric and Perinatal Epidemiology* 2000; 14(4): 332-339.

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Joseph KS, Kramer MS, Allen AC, Mery LS, Platt R. Implausible birth weight for gestational age. *American Journal of Epidemiology* 2001; 153(2): 110-113.

Wen SW, Joseph KS, Kramer MS, Demissie K, Oppenheimer L, Liston R, Allen A for the Fetal and Infant Mortality Study Group of the Canadian Perinatal Surveillance System. Recent trends in fetal and infant outcomes following post-term pregnancies. *Chronic Diseases in Canada* 2001; 22(1): 1-5.

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Platt RW, Abrahamowicz M, Kramer MS, Joseph KS, Mery L, Blondel B, Breart G, Wen SW. Detecting and eliminating erroneous gestational ages: a normal mixture model. *Statistics in Medicin*e 2001; 20(23): 3491-3503.

Kramer MS, Platt RW, Wen SW,, Joseph KS, Allen A, Abrahamowicz M, Blondel B, Bréart G for the Fetal/Infant Health Study Group of the Canadian Perinatal Surveillance System. A new and improved population-based reference for gestational age. *Pediatrics* 2001; 108(2): E35.

Liu S, Joseph KS, Wen SW, Kramer MS, Marcoux S, Ohlsson A, Sauvé R for the Fetal and Infant Health Study Group of the Canadian Perinatal Surveillance System. Secular trends in congenital anomaly-related fetal and infant mortality in Canada, 1985-1996. *American Journal of Medical Genetics* 2001; 104(1): 7-13.

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Health Canada. *Canadian Perinatal Health Report, 2003.* Ottawa: Minister of Public Works and Government Services Canada, 2003. Catalogue No. H49-142/2003E.

Wen SW, Fung KF, Huang L, Demissie K, Joseph KS, Allen AC, Kramer MS for the Fetal and Infant Health Study Group of the Canadian Perinatal Surveillance System. Fetal and neonatal mortality among twin gestations in a Canadian population: the effect of intrapair birthweight discordance. *American Journal of Perinatology* 2005; 22(5): 279-286.

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Appendix 1. Projects sorted alphabetically by theme