



## Message From The Chairperson

This issue marks the beginning of the second year for *Vital News*. We have received some very positive feedback from our readers and have welcomed their comments which have helped to shape the newsletter and to bring you articles which are not only informative and educational but also topical to the issues facing the Council and vital statistics agencies across Canada. The comments received from readers have also reinforced the fact that the newsletter is a valuable tool for the Council as we continue to inform, educate, and present our ideas and issues to individuals and organizations about the business of vital statistics. We value the continued support and feedback from our readers, and hope the newsletter may also become a vehicle for you, the reader, to share your thoughts, ideas, or questions about vital statistics.

With this message, I would also like to introduce myself as the new Chairperson of the Vital Statistics Council for Canada, and to welcome Thelma Johnston from Prince Edward Island as the new Chairperson Elect for the Council. Over the past two years as Chairperson Elect, I have had the privilege of learning from and working with Alice Garner who did an excellent job in leading and representing the Council as we embarked on some new initiatives, one of which was the success of this publication. Alice will continue to lend her invaluable experience to the Council as Past Chairperson. I would also like to acknowledge the leadership and work of the rest of the Executive Committee including Ron Danderfer who steps down as Past Chairperson, Janet Hagey who resigned as Co-Chairperson about a year ago, Gary Catlin who is the new Co-Chairperson, and Beth Sander, Secretary of Council. And of course I want to thank the rest of the Council members for their continued support and dedication.

Each year Council members are given the opportunity to meet in person to discuss issues and to share ideas and information on a wide variety of topics pertaining to vital statistics. This year's annual meeting of the Vital Statistics Council for Canada took place June 29 to July 3, 1998, in Ottawa, Ontario. Representation included the 12 Registrars/Directors of the vital statistics offices across Canada, representatives from Health Statistics Division of Statistics Canada, and from the United States, a representative from the National

Association for Public Health Statistics and Information Systems and a representative from the National Center for Health Statistics.

At this year's meeting, considerable time was spent by the Council formalizing a strategic business plan, which will form the basis of the direction that the Council wants to take over the next three to five years. Strategic directions will be planned in the following areas: Council management; Council relations with their members, clients, stakeholders and partners; facilitation and coordination of the vital statistics system through legislation, policy, education, and support functions; quality and standardization of services and data; promotion of the Council and its mandate; and client services and product development. The strategic business plan will not only supplement and lend support to those activities already being undertaken by the Council, but will also lay the foundation for Council to take on additional initiatives as the business of vital statistics continues to grow and change.

The Council continues to receive a number of requests from both federal and provincial/territorial government branches for access to vital statistics databases or for the collection of additional data elements by Vital Statistics agencies. Some of the agencies making presentations to Council at this year's meeting included the Canadian Perinatal Surveillance System Committee, the Laboratory Centre for Disease Control, the Council of Canadian Cancer Registries, the Central East Health Information Partnership, Advisory Committee on Population Health, and the Federation of Canadian Municipalities. As more and more agencies continue to request the use of vital statistics data, the Council is faced with the formidable task of balancing the needs of the requestor, the right to individual privacy, and the associated cost of collecting and releasing the data.

It was decided that January 1, 2000 would be the implementation date for Canada's Vital Statistics

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offices to adopt the ICD-10 classification system, which is the world standard for death coding. It was felt that this timeframe would be sufficient for Statistics Canada and vital statistics offices to change their systems, update data dictionaries, and train the medical coders in the use of ICD-10. Approval was also given to develop and implement an Internet web site for the Vital Statistics Council, which will have hotlinks to provincial/territorial vital statistics web sites as they are developed. More details about the web site will be provided once it is developed and ready for implementation.

Needing to explore more efficient and effective methods of data capture and storage, the Vital Statistics Council for Canada has identified the need to evaluate the concept of the electronic capture of birth and death registrations, and to establish standards around a national system for this purpose. A committee was formed at this year's meeting to undertake this task. The Council will also be looking with interest to not only our own British Columbia Vital Statistics Agency but also to some of the American Vital Statistics Registrars who have already begun to implement the electronic capture of death registrations into their systems.

Lastly, the Vital Statistics Council for Canada has undertaken a collaborative effort with other federal and provincial agencies across the country to discuss the feasibility of implementing a coordinated program to assist individuals who are in life-threatening relationships to establish a new identity for themselves. Of particular interest to vital statistics agencies will be the process undertaken to allow these individuals to obtain a confidential name change.

While I have highlighted just some of the issues discussed at our annual meeting, there are a number of issues that Council members continue to work on and which are of equal importance to Registrars/Directors of vital statistics programs. Some of these issues include the conformity of provincial/territorial legislation and policy, data standards and quality, source supply of certificate stock, mortality coding, geographic coding, and the linking of birth and death databases to name but a few. As the incoming Chairperson, I feel confident that the direction Council is taking will move us forward to meet the challenges that lay ahead. ♦

*Shelley Ann Gibson, Chairperson,  
Vital Statistics Council for Canada*

## **Uses of small-area geographic coding generated from postal codes**

*by Russell Wilkins, Statistics Canada*

Postal codes are now reported on most Canadian vital statistics records, although the completeness of reporting varies somewhat by province and type of event. Whenever a valid postal code is present and captured in machine-readable form, the postal code can be used to automatically assign small-area geographic codes to each event. The geographic codes produced include province, census division (county), census subdivision (municipality), census metropolitan area or census agglomeration (CMA/CA), census tract (CT), enumeration area (EA), latitude and longitude. This can be done both for postal codes referring to the place of usual residence, as well as for postal codes referring to the place of occurrence of an event. However, the coding produced by this method is only as good as the postal codes on the incoming file, which should be as complete and correct (for the known address) as possible.

To enable such work, the Health Statistics Division of Statistics Canada makes available to each of the provincial and territorial registries of vital statistics (as well as to each cancer registry), on request, a copy of the computer programs and data files needed for the automated coding of their event data. The current version, Geocodes/PCCF Version 2,(1) is based on January 1996 postal codes, and generates 1991 census standard geography. By late fall 1998, Version 3 should be available, based on June 1998 postal codes and generating 1996 census standard geography.

Once the small-area geographic codes have been generated, then virtually any spatial aggregations of the data are possible. Local and regional health districts, hospital service areas, school districts, planning areas, or any other geographic areas can be defined in terms of any of the geographic codes produced by the automated coding. Alternately, with the help of geographic information system (GIS) software, boundary files not necessarily congruent with any of the standard geography can be used to aggregate events based on their latitude and longitude coordinates.

Vital event data coded to an earlier (or later) vintage of census geography plus latitude and longitude can thus be accurately converted to any other vintage of census geography, or to any arbitrarily defined units whose boundaries can be mapped. Great flexibility is obtained because although the names and codes

of the various units may change over time, the latitude and longitude coordinates of the events remain the same. Amalgamations (such as recently occurred in Ontario), partial annexations, and splits can be accommodated without loss of data quality. Such flexibility is clearly not possible when events are only coded to the municipal and county level, which is currently all that is required for reporting to Statistics Canada.

The small-area geographic codes generated from postal codes on vital event data can also be used for matching against census population profiles at the census tract or enumeration area level, in order to append neighbourhood socioeconomic characteristics to the event records. This is how analyses of birth outcomes and mortality by neighbourhood income are done.

Since their latitude and longitude coordinates are automatically generated, each event can be mapped--with great precision in urban areas, and lesser precision in rural areas. Distance to service providers such as hospitals, clinics or physicians can be calculated. And all of this can be done automatically using relatively simple computerized routines. Probable effects of environmental hazards can also be examined, based on location and distance relative to known sources of pollution or environmental contamination.

Have you tried using Statistics Canada's automated geographic coding software to produce small-area geographic coding from postal codes on your vital statistics files? If not, we encourage you to do so in the near future. Our experience is that the more familiar you become with this way of coding, the more you will like it--and the more you will appreciate the importance of full and accurate reporting of postal codes on all records.

More detailed information about automated geographic coding from postal codes and addresses will be included in future issues of Vital News. In the meantime, for more information please contact Russell Wilkins at the Health Statistics Division (telephone 1-613-951-5305; fax 1-613-951-0972; email wilkrus@statcan.ca). For copies of the Geocodes/PCCF programs (written for SAS), data files, and documentation (now available formatted as an MS Word document file) contact Colette Brassard at the Operations and Integration Division--Health (telephone 1-613-951-1750; fax 1-613-951-0709; email brassar@statcan.ca).

## Reference

(1) Wilkins R. Geocodes/PCCF Version 2 User's Guide. Automated Geographic Coding Based on the Statistics Canada Postal Code Conversion File. Ottawa: Health Statistics Division, Statistics Canada, Ottawa, July 1996. ♦

## British Columbia Participates in the Australasian Registries Benchmarking Survey

*Bill Moncur*

*British Columbia Vital Statistics Agency*

In the latter part of 1997, the British Columbia Vital Statistics Registry was invited to participate in the Australasian Registries of Births, Deaths and Marriages Benchmarking Project. The intent of the project is to allow participating agencies to compare their process and performance with similar operations in an effort to allow for the sharing of methods for improving services to clients.

The Australasian Registries consist of the six Australian states, two Territories and New Zealand each agency having responsibility for recording significant life events (births, marriages, deaths) for the population of their state/territory/country. These events are recorded in databases which are then used to generate certificates of various types for use by individuals in gaining drivers licences and passports, obtaining government benefits, entering school, settle wills, etc. There is also a range of other products available from most Registries for genealogical research such as historical indexes. Each Registry also performs services such as Registry wedding ceremonies, adoption record searches and report generation for government agencies.

Key features of the existing Agency operations include:

- \* registrations of events date back to the founding of each State
- \* a mixture of database media encompassing paper, bound books, microfilm and computer
- \* service deliver through a mix of personal (front counter services), mail, facsimile, telephone, and electronic (including the use of the Internet)
- \* registration which is generally free of charge while fees are charged for production of certificates

- \* new initiatives comprising such things as commemorative certificates priced at a premium over standard certificates
- \* demand for certificates are driven by the needs of other agencies (example driver licensing, school entry, passport, etc.).

The Registries have benchmarked their key process measures based on quality, cost and timeliness. The issues to be reviewed with the survey instrument are:

- \* access and customer service
- \* database/records management
- \* business goals of each registry
- \* process maps which outline the work processes used to meet client needs
- \* identification of “best practices” used by the registry
- \* identification of issues which participants would like to have discussed in the benchmarking forum.

At this time, the British Columbia Vital Statistics Agency has submitted its responses to the survey instrument and this information is now being tabulated by the Australasian Quality Assurance Council along with the information from the Australasian Registries to allow for comparison of the participants. Results are shared on a confidential basis with survey participants with each organizations identity being held anonymous. In addition discussion forums will be facilitated between Registries facing common issues and who have requested comments and suggestions from participating partners in the Benchmarking Survey. It is anticipated these results will be available to participants during 1998. ♦

### **The Use of Vital Statistics Data at the Population Health Research Unit, Dalhousie University.**

*Mike Pennock, Research Director  
Population Health Research Unit  
Community Health and Epidemiology  
Faculty of Medicine  
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Population health research is concerned with the study of the determinants of health in a population. The research projects which are undertaken relate to a variety of different topics; socio-economic

determinants, environmental determinants, the role of health services, biogenetics and a host of other issues. One of the key challenges in this research is defining the level of “health” in a population. Although a variety of measures of “health status” can be used, the most frequent measure is “premature mortality rates”. The availability of accurate and timely vital statistics is crucial to this research because the calculation of premature mortality rates requires the cause of death, the age of the deceased and the gender of the deceased. Premature mortality rates can be calculated for total deaths or for specific causes such as cardiovascular disease or cancer.

The Population Health Research Unit routinely utilizes vital statistics data to calculate premature mortality rates for a variety of causes for the eighteen counties that comprise the Province of Nova Scotia. These rates are used by Regional Health Boards and Community Health Boards in support of their planning and priority-setting activities. They are also used in an ongoing program of research at Dalhousie which seeks to explain inter-county variation in premature mortality rates through the identification of key determinants and to predict health human resource requirements.

The Unit is also involved in the development and implementation of an important new child health initiative in the Western Health Region of Nova Scotia. This initiative, which is funded by Health Canada, will seek to develop the capacity of communities to increase resilience in children. The

### **ANNOUNCEMENT**

Vital News has learned that Elizabeth (Liz) Crowley Meagher has been appointed Deputy Registrar General for the province of Nova Scotia, effective May 01, 1998.

Liz has worked with Vital Statistics for the past 24 years and, during that time, has been involved in and managed all aspects of the operation. Through this experience she has acquired an extensive knowledge of the legislation as well as administration and operations. Prior to her appointment, she served as Assistant Deputy Registrar General for Nova Scotia. Our congratulations, Liz.

term “resilience” refers to the capacity of children to withstand traumatic events or other disadvantages without suffering the health consequences which typically accompany them. For example, children living in poverty have substantially higher rates of health problems than children in more affluent homes. This program will seek to mobilize community resources to overcome some of the disadvantages that poor children face and, consequently, improve their health status. The Population Health Research Unit (PHRU) will be creating a Western Region Child Health Database which will be used to evaluate the effects of this program. Childhood mortality data will be a key component of this evaluative study. One county in the study area was found to have substantially higher child mortality rates than the province as a whole and the ongoing monitoring of these mortality rates will be a key component of the evaluation.

Recently PHRU entered into an agreement with the Eskasoni Band Council to develop a health database for the residents of the Eskasoni Reserve based on their hospital separation records, physician contact records and mortality data. This database will play a key role in supporting the ability of the Eskasoni Health Centre to plan and evaluate a new primary care initiative which they will be developing on the reserve.

Mortality data plays a critical role in the work of PHRU and similar centres in other provinces. As the process of health reform continues across the country and new ways of improving the health of the population are sought, the need for accurate and timely mortality data will continue to grow. Mortality data will also continue to play a key role in increasing our knowledge about the key factors that determine the health status of the population. ♦

## ON A TYPICAL DAY IN QUEBEC IN 1996

### The following events were recorded:

#### 233 LIVE BIRTHS

- 120 boys and 113 girls were born
- 36 were born by caesarian
- 17 were premature (at 36 weeks or less)
- 14 had low birth weights (<2500 gr)
- 3 involved teenage mothers (<18 years old)
- 5 births were multiple births
- 5 births took place at home every 10 days
- 9 stillbirths occurred every 10 days
- 123 births were out of wedlock / 11 births involved an unknown father

#### 65 MARRIAGES

- 19 were civil marriages and 46 were performed by a representative of a church
- 53 were marriages between two persons who had not previously been married

#### 143 DEATHS

- 75 men and 68 women died
- 50 deaths were caused by illnesses of the cardiovascular system, including:
  - 29 from heart disease
  - 9 from cerebrovascular disease
- 44 deaths were caused by cancer, including:
  - 13 from lung cancer
  - 5 from colon and rectal cancer
  - 4 from breast cancer
  - 2 from prostate cancer
- 12 deaths were caused by illnesses of the respiratory system, including:
  - 3 from pneumonia/flu
- 10 deaths occurred as a result of an accident or act of violence, including:
  - 4 suicides
  - 2 deaths as a result of motor vehicle accidents
  - 4 deaths every 10 days as a result of murder
- 4 deaths were diabetes-related
- 2 deaths were related to Alzheimer’s disease
- 1 death was AIDS-related
- 1 death of a child under one year of age.

Source: Bureau de la statistique du Quebec

## VITAL STATISTICS COUNCIL FOR CANADA



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