Life Expectancy

Dear Editor,

In the year 1993 an unexpected drop in life expectancy was observed in Canada for both sexes. I am writing to present the results of my calculations of life expectancy for the years 1991, 1992, 1993 and 1994. To estimate life expectancy, an artificial population is used in which individuals will die according to a risk determined for the year being considered.

I developed an algorithm to estimate life expectancy for the given data, the number of deaths and the population sizes by age group and sex for the specific year. The algorithm was realized through the LIFEXP program in the Basic language with only a few lines of instructions. The heart of the algorithm is the method of predicting the probability of dying for the individuals from an age group. The following formula\(^1\) was applied to estimate the probability of death: \( p = 1 - \exp (-h^r) \), where \( h \) is the interval (in years) of an age group and \( r \) is the rate of deaths (cases/population).

The results are summarized in Table I. The estimations published by Statistics Canada\(^2-5\) are labelled Males and Females for the respective sexes, and my values are labelled LIFEXP. Some values published by Statistics Canada are given with only one digit after the decimal point. The differences between the values from the LIFEXP program and the published ones are generated by such factors as different algorithms, different numbers of age groups and different data.

The main conclusions from the estimated life expectancies presented in Table I are that 1) there was a slight drop in life expectancy for the year 1993 for both sexes in Canada, and 2) the female life expectancy dropped in 1994, as compared with 1992.

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REFERENCES

The Methodologies of Qualitative Research

Dear Editor,

We read with interest Dr. Larry Chambers’ letter “Qualitative and Quantitative Research Methods” (Can J Public Health vol. 88(1): 9-10), urging the Journal to publish a range of research, both qualitative and quantitative. It is clear that each research tradition has its strengths and that no single approach will suffice in helping us understand the complex nature of public health phenomena.

Chambers’ suggestion that qualitative research must be scrutinized to ensure scientific rigour is an important one; however, we would not necessarily apply the terms validity and reliability to this paradigm. There has been considerable debate in the field about the appropriate criteria for judging the quality and rigour of qualitative research. The criteria that Chambers suggests are by no means universally accepted. To gain an understanding of the diverse perspectives on this issue, readers are referred to the work by Sandelowski,\(^1\) Burns,\(^2\) Lincol and Guba,\(^3\) and Smith,\(^4\) among others.

We are heartened that Chambers recognizes the potential of grounded theory as an appropriate methodology for studying public health phenomena. None the less, we find his discussion confusing and perhaps misleading. He suggests that there are two methods of developing grounded theory: the constant comparative method and the theoretical sampling method. Grounded theory was originated by Glaser and Strauss\(^5\) as the constant comparative method. It is only in recent years that they have developed the methodology into what may be different directions. See Glaser\(^6\) for his perspective on these differences.

Nevertheless, theoretical sampling is not a different method of grounded theory. Both the constant comparative method and theoretical sampling are part of the process of doing grounded theory. The grounded theorist uses theoretical sampling to identify the populations, settings, incidents and cases to be studied. Data collection occurs simultaneously with data analysis. As data are analyzed using the constant comparative method and conceptual formulations begin to emerge, the researcher continues to sample theoretically in order to fully develop and enrich the categories. For example, if the researcher is finding that a particular concept is emerging that seems important but there are not sufficient data to support and elaborate it, then she would make efforts to collect data that would either support or refute the concept. In a recent study,\(^7\) as it became evident that a history of abuse might be related to depression in women, the researcher specifically asked about this possibility.

We write this in the hope that those who are becoming interested in qualitative methods will take the time to learn about the methodologies themselves, as well as the ontologies, epistemologies and philosophies that underpin them.

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REFERENCES

Continued on page 158/Suite à la page 158
school or postgraduate education. Anesthesia residents at McMaster University do a rotation in an acupuncture clinic, and at the University of Alberta, the Faculty of Extension has a graduate program in medical acupuncture.6 In the autumn of 1996, the Tzu Chi Institute for Complementary and Alternative Medicine opened as part of the Vancouver Hospital.7 Because the population is aging and the prevalence of multiple chronic diseases increases with age, the demand for alternative therapies could increase. The inclusion of any alternative practitioner services under existing health care plans could result in higher health care costs. Consequently, there is a growing recognition that the claims of alternative practitioners of health care should be evaluated with the same types of scientific criteria as are used for competing treatments in conventional medical practice.8,9

REFERENCES


Correction

In a letter entitled “An Appeal to the Canadian International Health Community”, published in the March/April issue of the Journal (vol. 88, pp. 140-41), the name of the second author of the letter was inadvertently omitted. We apologize to Dr. Sylvia Robles for the error. The signature should have read as follows: Franklin White, MD, Program Coordinator, and Sylvia Robles, MD, Regional Advisor, Program on Non-communicable Diseases, Division of Disease Prevention and Control, Pan American Health Organization.

LETTERS/CORRESPONDANCE

continued from page 153/suite de la page 153