ABSTRACT

Causes-of-death statistics is an important source of information, which is useful in developing health indicators, health planning, evaluation of health care services and for epidemiological research. If it to be of optimum use the quality of information need to be satisfactory. In view of the discrepancies between health indicators and health care resources in some parts of Sri Lanka, concern has been expressed regarding the validity of data on which these indicators are based. Hence a critical appraisal of the coverage and quality of death certification was considered a contemporary requirement.

This study investigated some important aspects of quality and coverage of death certification in a predominantly rural district, which is not "proclaimed" under the Birth and Death Registration Act. Another objective of the study was to test the effectiveness of an intervention program aimed at improving the quality of death certification.

The methodology adopted included: a retrospective analysis of death certificates of a given year, a community based survey to study the coverage of death registration, comparative analysis of the quality of death certificates before and after an intervention, and an assessment of the applicability of the technique "verbal autopsy" as a potential tool in validating cardiac causes of death.

Findings indicated that the recording of data on causes of death by the Registrars of Births and Deaths was not satisfactory due to incompleteness in recording socio-demographic characteristics of the decedent; specially with regard to the "occupation", errors in the transfer of information and misinterpretation of causes of death. In a high proportion (31.8%) of deaths, the cause was either ill-defined or unspecified. Errors in recording causes of death were more common in deaths certified by lay Registrars than in those recorded by medical officers.

When compared with rules and definitions in the International Classification of Diseases (ICD), a substantial proportion of medical officers have misclassified the underlying cause of death (15.5%). The use of ill-defined terms such "cardio-respiratory arrest," was frequent (76.4%), and the use of abbreviations was another common error (26.4%) made by medical officers.

Verbal autopsy was found to be a useful technique that could be used to validate causes of death, in relation to diseases with specific pattern of clinical history, such as myocardial infarction, with an acceptable degree of accuracy (agreement with a Kappa Coefficient of 0.58).

The overall coverage of death registration was only 72.5%, while the percentage of registration of infant deaths was much lower ie. 28.6%. Socio-demographic factors such as age, sex, place of death and duration of residence were found to have an influence on the coverage of death registration. A substantial proportion (30.6%) of the respondents in the survey was unaware of the requirement of death registration, which highlights the need for a comprehensive public awareness program.

Simple and practical educational inputs to responsible officers proved to be effective in improving some aspects of the quality of death certification, such as the reduction of the proportion of "signs, symptoms and ill-defined conditions" as cause of death, from 31.8% to 23.2%. This was more evident in deaths certified by medical officers (from 9.9% to 2.3%), compared to those certified by lay Registrars (21.9% to 20.7%).

There appear to be a lack of proper coordination between the systems of collection of data related to mortality and the potential use of such data for the development of health sciences health related research. The knowledge and practices of responsible officers on death certification at different levels need to be improved by concerted efforts. Documents used in the collection of data need to be revised and the legal procedures of death registration need restructuring with a view to obtaining more reliable and accurate mortality data, which could be used meaningfully in health planning and epidemiological research.