

Application of Health Economics in the Canadian Pharmaceutical Industry

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ABSTRACT

OBJECTIVES: The field of health economics (HE) has undergone vast growth over the last decade. One continually evolving main factor is the motivation for performing HE studies, in particular in Canada because of changing requirements for provincial formulary submissions. The objective of this study was to determine how HE data is being applied by the Canadian pharmaceutical industry to date.

METHODS: A survey was sent to key personnel working in HE in the Canadian pharmaceutical industry and followed-up. Data from returned surveys were compiled in a database, tabulated, and evaluated.

RESULTS: Twenty-one (84%) of 25 surveys sent to companies reporting previous experience with HE were returned; 90% of these companies were firms with more than 100 full-time employees. Of the respondents, 67% currently have a department or unit whose sole responsibility is HE, up from 12% reported in a previous study for 1995. The application of HE information by Canadian pharmaceutical companies is most often for provincial formulary submissions (100%), marketing (86%) and pricing (81%). It is also used by 62% of respondents for internal training and medical education programs. Relatively few Canadian companies apply HE information to managed care decision-making (38%) and patient education (24%). Health economic research data was published by 3/4 of the respondents in the form of scientific posters or conference presentations and by 2/3 in the biomedical, peer-reviewed literature. Ninety percent of respondents cited plans for new HE studies in Canada within the next year.

CONCLUSION: Canadian companies have expanded their use of HE data in recent years. The focus has shifted from preferential internal use (pricing and marketing) to more external purposes such as provincial and hospital formulary submissions. Health economic research data also find a place in training within pharmaceutical companies and in medical education.

INTRODUCTION

The field of health economics (HE) has undergone vast growth over the last decade. One continually evolving factor representative of this growth is the motivation for performing HE studies, especially in Canada because of changing requirements for provincial formulary submissions. Published studies have demonstrated a global increase in the cost of health care and its anticipated continuing growth.¹⁻³ These studies also allude to a growing emphasis on HE research in the pharmaceutical industry and previous surveys specific for the Canadian pharmaceutical field support this. One survey conducted in 1995 examined the adoption of HE by the pharmaceutical industry when the field was in its infancy, with a focus on types and frequency of studies.⁴ Another survey, conducted in 1999, looked at how HE departments functioned in Canadian pharmaceutical companies.⁵ Comparison of both surveys indicated that the HE role in the industry had grown stronger from 1995 to 1999.

OBJECTIVE

The objective of this study was to look at how HE data is actually being used within the Canadian pharmaceutical context to date.

METHODS

Survey

Data was gathered using a written questionnaire designed to describe the company environment, the amount and type of HE studies performed and how they were applied. For most questions, a series of discrete options were provided with the opportunity of providing textual information if desired. A copy of the survey is attached.

Participants

A list was compiled from the company directory in the 2000 Canadian Compendium of Pharmaceutical Specialties (CPS)⁶ and from the Company Directory for the Pharmaceutical and Medicine Industry.⁷ Telephone calls were made to 70 companies to locate persons responsible for HE within each company. The sample polled included HE managers or directors, scientific directors, clinical research directors, and directors of regulatory affairs and outcomes research. Once the appropriate individual was contacted, the rationale for the study was explained and agreement was requested to participate in the survey. Of the 39 companies in which a contact was located, 29 agreed to participate in the study, and one representative from each of 25 companies returned a completed questionnaire.

Data Collection

Surveys were sent either by fax or mail according to the wishes of the respondent. If responses were not received within one week, a follow-up phone call reminder was made. Data from retrieved questionnaires were entered into an Excel spreadsheet; every response that was checked in the questionnaire was given a value of 1. A linked worksheet contained the numerical responses.

Data Analysis

Data collected was analyzed, where appropriate using statistical tests for non-parametric data with the Graphpad statistical package. Other findings are reported qualitatively.

CONCLUSION

Canadian companies have continued to expand their use of HE data over the last few years. The focus of this research has shifted from a preferential role in internal function (e.g. pricing and marketing) that was reported in an earlier study, to include more practical external purposes such as economic analysis for provincial and hospital formulary submissions. Information from HE studies is being disseminated via the biomedical literature and through poster presentations by a large proportion of the Canadian pharmaceutical companies responding. Health economic research data has also found a place in training within pharmaceutical companies and in medical education, but is not yet generally used in educating patients.

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