Computerized family practitioner committee records — a data base for general practitioners

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SUMMARY. In the primary care environment the role of preventive medicine is assuming increasing importance and general practitioners need accurate and up-to-date information about their practice population. Computerization of family practitioner committee registers should provide a readily accessible data base from which data about groups of patients within the practice area can easily be extracted. This paper describes a study carried out in Northumberland, which set out to establish the type of information which would be of interest to general practitioners and how it could be produced.

It was found that a data base holding only registration data was of limited value to general practitioners, although useful for identifying target groups for screening programmes and showing demographic trends within the practice. The doctors felt that the inclusion of medical data would make the register a far more effective resource.

Introduction

DURING the last few years general practice has been undergoing a gradual change from reactive to proactive medicine. This move[1] has demanded new clinical management skills together with improved record keeping and better techniques for identifying target populations, enabling efficient management of the whole practice population. Thus a general practice needs accurate, up-to-date information on groups of patients, their ages, locations and distribution within the practice area and on the trends-which reflect a changing demographic base.

Much of the required demographic information is held on family practitioner committee registers, and with the advent of computerization data extraction should be easy. Harris and Hanson[2-4] have clearly demonstrated how family practitioner committee item-for-service and capitation information can be used to provide basic process data for general practice.

However, the expectation that extensive demographic data could be produced by Northumberland family practitioner committee without much difficulty proved optimistic, since the software provided by the central family practitioner committee computer unit in Exeter did not allow easy provision of the most useful information. In fact, one early attempt to stratify a single practice population by age and area of domicile absorbed 18 hours of computer time, to the detriment of other work.

With this in mind the Northumberland family practitioner committee, in conjunction with the district health authority, funded a study to establish: (1) who the users of the information might be; (2) the kind of information required and how it might be used; and (3) how the information could be extracted from the registration data base.

The study was undertaken by the School of Health Studies at Newcastle on Tyne Polytechnic. The project steering group were aware of the possible problems of confidentiality and so they sought the advice of the family practitioner committee data protection committee before the study commenced. This paper concentrates on the provision of data to general practices.

Method

Practices in Northumberland vary from small single-handed rural practices to six-doctor group practices in the county's larger towns. A small number of general practitioners, chosen to reflect a reasonably representative range of practices, were interviewed. The interviews were completely unstructured — doctors were simply asked, 'What sort of demographic information would you find useful and how do you feel it would help you?' and then encouraged to talk about how their practices operated and the difference improved information provision might make.

The family practitioner committee data base currently holds only registration data: name of patient, date of birth, address, doctor, whether rural practice, whether dispensing practice, date patient added to list, date removed and reason, and any prescription charge exemption. Doctors felt that the value of this data was somewhat limited. However, as the interviews continued it emerged that they were interested in such things as the age structure in their practices, particularly children under school age and the elderly, and how their demographic data compared with other practices in their area and in the county. In general, the doctors sought access to information which would help them improve the quality of care they could offer to patients.

A semi-structured questionnaire, based on the interview responses, was sent to all 50 practices in the county. The questionnaire sought comments on the usefulness of the following: breakdown of practice lists by age and sex and by locality and mileage zones. In addition, practices were asked what, if any, computer equipment they had, what it was used for, and what concerns they had about computerization of patient lists.

A second questionnaire was sent to all the practices, specifying the different kinds of data the family practitioner committee felt it could realistically offer without unduly increasing its workload, and asking what practitioners would require on a yearly or *ad hoc* basis. The doctors were also encouraged to make comments. No reminders were sent.

Results

Completed first questionnaires were received from 39 practices (78%). Ten of the replies suggested further additions to the areas of interest covered; they concentrated mainly on the use of the information for call and recall schemes. Figure 1 shows the level of interest in each of the areas covered by the questionnaire.

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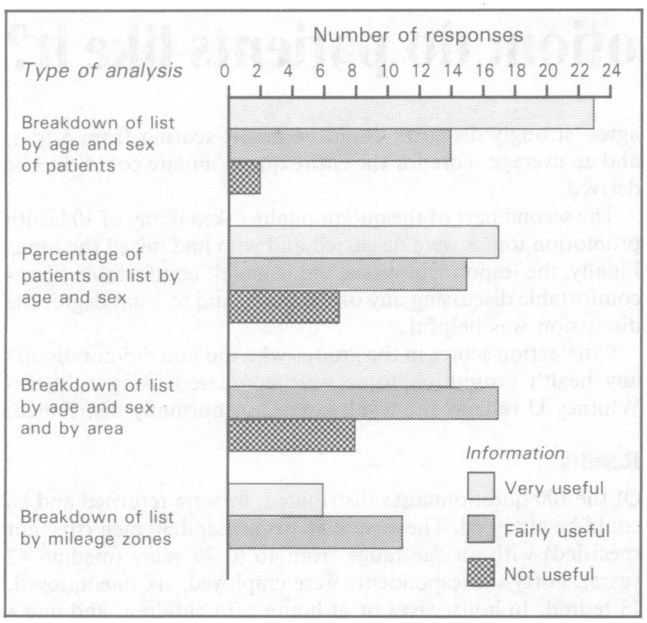

Figure 1. *Level of interest among the 39 practices in the areas covered by the first questionnaire. Only the 17 rural practices commented on the usefulness of breakdown by mileage zones.*

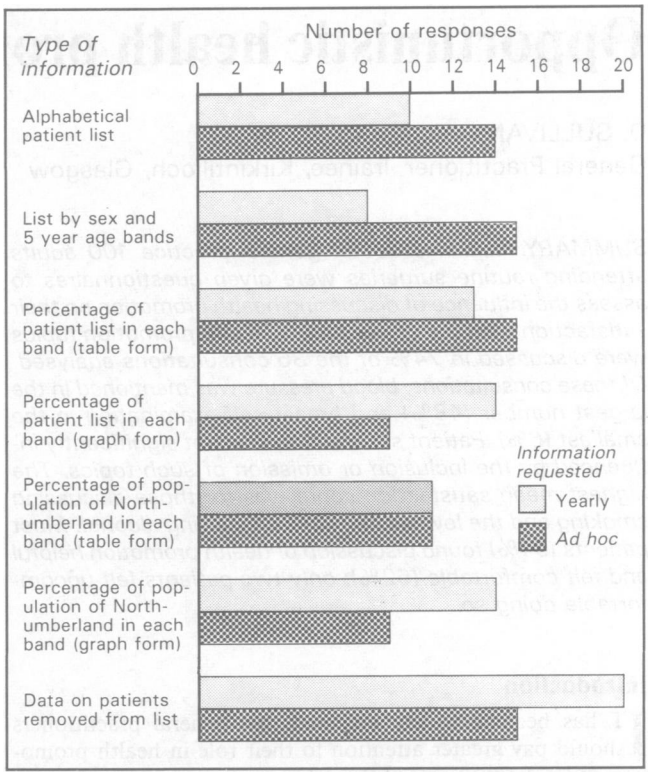

Figure 2. *Different types of information requested by the 40 practices.*

Eleven practices already had computers, and another 16 were seriously considering buying a system. Those practices which already had computers were using them for maintaining disease registers and keeping records of cytology, immunization and contraception as well as for printing repeat prescriptions and updating their age–sex register.

Forty practices (80%) responded to the second questionnaire. Figure 2 shows the number of practices requesting the different types of information. The greatest interest was shown in the numbers of patients removed from the practice list and in particular the reason for removal. At present doctors have no easy way of obtaining this kind of information without their own computer.

Perhaps the most important finding was that general practitioners felt the family practitioner committee data base should hold medical information, particularly codes for immunization status and hypertension, chronic bronchitis and other chronic conditions. From this data base, protected by access codes, practices without computers could request lists of patients who needed recall and checking for specific conditions, thus improving the efficacy of manual systems.

Discussion

Those practices which asked for information on a regular basis are now being sent printouts of practice lists. Because the current family practitioner committee computer system cannot easily provide a breakdown by age and sex this is achieved by transferring practice lists to a microcomputer and using a specially written program, developed as part of this feasibility study. The Lotus Symphony package is then used to produce the information in a form which is easy to assimilate. A user requirement has been drawn up outlining the extra facilities which the family practitioner committee minicomputer should provide to allow the required information to be easily extracted, and work is being undertaken to allow a more flexible enquiry system.

The results of the first questionnaire revealed a far higher level of interest in primary health care computing than had been expected. As a result a Northumberland computer user group was formed, both as a forum for new ideas and to support those wanting to computerize their practices. Group members are now discussing a common form of coding for medical information to be held on the family practitioner committee computer. Early concerns about confidentiality have been dealt with and it is expected that data on a small number of measurable, comparable conditions will soon be available on the family practitioner committee computer. At the time of writing the family practitioner committee have committed scarce resources to developing the required software. This could be the basis for a epidemiological data base for Northumberland.

The project has focussed the attention of the family practitioner committee on the information needs of its major users, while showing that the registration data are still of value to doctors. Given the opportunity, doctors are keen to have access to any information which would help them improve the care of their patients.

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Acknowledgements

We would like to thank Drs C.J. Robinson and A.G. Pledger, who helped provide the initial impetus for the project, and Mr P. Owens, Family Practitioner Committee Assistant Administrator, who kindly produced the graphs.

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