Views of general practitioners in the Oxford region on microcomputing and collaboration with health authorities and family practitioner committees

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SUMMARY. A postal questionnaire was sent to the senior partners of all 353 general practices in the Oxford region to investigate their interest in microcomputing and in pooling data with other general practitioners, health authorities and family practitioner committees. The response rate was 58%. Twenty per cent of responders already used a microcomputer and a further 59% intended to purchase a microcomputer for the practice. Nearly all the practices with an interest in microcomputing wanted to use it to produce age–sex registers, to establish recall groups and for repeat prescribing. Approximately 90% of interested practices reported that they would be prepared to link their data with family practitioner committees or health authorities, while 76% were interested in collaborating with other general practitioners for research. The results show that general practitioners will require support in utilizing the data that they produce.

Introduction

THE importance of computerized primary care medical records when providing anticipatory health care is being increasingly recognized.[1] Once primary medical care records have been computerized, information may be used for intra- or inter-practice audit. For example, the proportion of women who have had cervical smears by age group may be contrasted within and between practices in order to identify women who would most benefit from a more concerted approach. Joint discussions about the results of audit offer an opportunity to share ideas about good methods of practice.

Recent changes in the National Health Service have placed much of the responsibility for monitoring the quality of care provided by general practice upon the already under-resourced family practitioner committees. At the same time, the epidemiological skills needed for this monitoring role can be found within community medicine departments in district health authorities. Extensive use is already made of routine mortality and hospital inpatient data for resource allocation, health care planning and epidemiology. There is, however, a major gap in knowledge of disease patterns and health care utilization, owing to the absence of routine systems of recording data from primary care. Furthermore, health authorities are sometimes unsure about the willingness of general practitioners to provide a minimum data set which could be used for these purposes.

This paper describes the results of a postal survey in one region, undertaken to investigate general practitioners' interest in microcomputing and in pooling data with other general practitioners, health authorities and family practitioner committees.

Method

In June 1985 a questionnaire was sent to the senior partner of each of the 353 general practices in the Oxford region — 205 replies were returned after the first and only mailing (58% response rate).

The questionnaire covered three main topics: current and intended use of microcomputers in the practice; which items of data general practitioners wanted to collect; and whether general practitioners were prepared to pool their practice data with other general practitioners, health authorities and family practitioner committees.

Results

Current and intended use of microcomputers

Of the 205 responders 40 (20%) already had a microcomputer in their practice and 18 of the 40 intended to replace their current system with a new one in the near future. A further 120 responders (59%) indicated that they were considering the purchase of a microcomputer for the practice. The remaining 45 responders (22%) reported that they did not have a microcomputer and that they had no intention of purchasing one.

Use of microcomputer functions

Table 1 shows that nearly all the practices who either had, or intended to obtain, a microcomputer were keen to use it to produce age–sex registers, to establish recall groups and for repeat prescribing. The majority of practices reported that they would also like to use a microcomputer for practice audit, to produce problem lists and as a word processor. Levels of interest dropped only for the more academic aspects of practice computing — collecting information about the consultation and data for medical education and epidemiological studies.

The 45 practices with no plans to purchase a microcomputer expressed far less interest than the other practices in collecting any of these data items using a computer. The potential uses of computing in which they expressed most interest were producing age–sex registers (24%), producing problem lists (20%),

Table 1. Microcomputer functions which practices would like to use.

	Percentage of practices	
	Already have a microcomputer (n = 40)	Plan to buy a microcomputer (n = 120)
To establish recall groups	100	99
To produce age–sex registers	98	98
Repeat prescribing	98	97
Practice audit	90	73
To produce problem lists	88	80
As a word processor	83	72
To collect data for epidemiological studies	68	48
To collect consultation data	45	32
To collect data for medical education	30	36

n = number of practices.

word processing (23%), establishing recall groups (27%) and repeat prescribing (22%). Few of these practices wanted to use a microcomputer for practice audit (7%) or to collect data for epidemiological studies (7%) or about the consultation (2%); none were interested in collecting information for medical education.

Interest in pooling data

Of the practices with, or who intended to buy, a microcomputer 95% reported that they would be prepared to link with their family practitioner committee to update registration data. Ninety per cent were interested in combining data from their own practice and other practices with data from computerized child health and immunization modules run by the health authority, and 88% would consider making statistical data available to their local health authority in order to improve health care planning.

Of these practices 84% reported that they would like to form a microcomputer users group with other general practitioners for support and advice while 76% were interested in collaborating with other general practitioners for research.

Among the practices with no current microcomputing plans 36% reported that, if they had a microcomputer, they would like to form user groups with other practices, 20% would like to pool data with other practices, 20% would be prepared to link with family practitioner committees and 16% would be prepared to provide data to their local health authority.

Discussion

The main finding of this study was the high level of interest expressed by general practitioners throughout the Oxford region in microcomputing and in pooling their data with other general practitioners, health authorities and family practitioner committees. Even if all the non-responders had no current interest in computing, this still means that at least 45% of all practices in the Oxford region either use, or are interested in using, a microcomputer in their practice.

The offer of free microcomputers in exchange for information on prescribing patterns and patient encounters,[2] made since the survey was conducted, will undoubtedly have influenced the attitude of general practitioners towards microcomputing. The computer companies involved have been inundated with applications from general practitioners and many more general practices will benefit from the advantages of a computer than would have been the case without such an offer. At the same time a free computer may have disadvantages. First, participating general practitioners may find difficulty in maintaining the level of data collection required of them and may feel that computers are not that useful in primary care. Secondly, the collection of data from primary care concerning adverse drug reactions may undermine the national systems of drug surveillance. Finally, the validity of the data collected in return for a free computer must be questioned. Work from Oxford has shown that the collection, analysis and interpretation of computerized clinical information from primary care is open to a multitude of vagaries, which limit its immediate usefulness (Coulter A, Brown S. Oxford Regional Health Authority, 1987, unpublished report).

The results from this study indicate that there was a high level of interest in computers in general practice before the recent offers were made and it will be unfortunate if the opportunity of integrating information from general practice with data from the rest of the National Health Service is lost. It is, therefore, proposed to repeat the survey in the near future, in order to reassess the level of interest among general practitioners in computing and pooling information with health authorities.

This study indicates that although the level of interest in microcomputers was high, knowledge about specific computer

systems was restricted, and a wide range of models were chosen by different practices. This suggests that general practitioners would benefit from an easily digestible review of the microcomputers available in order to make an informed choice about which to buy. Since this survey was undertaken, two such reviews have become available.[3,4] The wide range of microcomputer systems being purchased will reduce the likelihood of practices collecting data which can be pooled or integrated with other data from the primary health care sector.

Some family practitioner committees have indicated the minimum data set which they would require from primary care:
● A demographic profile of the practice population.
● The prevalence of certain aspects of health-related behaviour, for example body-mass index, diet, smoking, alcohol consumption and exercise.
● The coverage of screening procedures by age within the practice population, for example cervical cytology, mammography and hypertension screening.
● The coverage of immunizations by age within the practice population.
● The procedures adopted for the follow up of patients with chronic diseases.

Practices with an interest in microcomputers expressed high levels of commitment to collecting data and in particular they were keen to utilize data which would improve the organization of their practice. Predictably, practices with no interest in microcomputing expressed much less interest in data collection. However, approximately one fifth of these practices would like to collect data in order to improve their practice organization if they had a microcomputer.

General practitioners are often considered unwilling to share information about their practice but this survey shows that once general practitioners have the appropriate technology, they are only too willing to collaborate with other members of their profession as well as with health authorities and family practitioner committees. Even among the practices with no interest in microcomputing, approximately one fifth would be interested in pooling data if they had the technology to do so. However, they are less prepared to pool data if they are required to provide the necessary impetus. This may be due to lack of time, confidence or skill. It seems clear that all practices, including those with a commitment to high standards of primary care information, require support in utilizing the data they produce.

Family practitioner committees, health authorities and community physicians should combine their administrative and epidemiological skills to work with the large body of goodwill within general practice.

References

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