

*Using an age-sex register**

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SUMMARY. A study of practices using an age-sex register suggested that more use could be made of registers, especially in preventive medicine. Difficulties in creating and maintaining the register, as well as analysing it, discourage many practices. Those who make full use of their register obtain great benefit from it.

Introduction

It is a far cry from the first count of the Israelites in the Wilderness of Sinai to the sophisticated census undertaken by the Office of Population Censuses and Surveys (O.P.C.S.) in 1971; from the collection and counting of half a shekel from each male over the age of 20, to the head of a household answering a detailed questionnaire which is processed by a computer. Basically the underlying principles are similar and they have a common aim to assess all or part of a defined population.

A general practice in the United Kingdom is the only basic medical unit which is capable of recording all the medical care of a defined population. To analyse and study the records of such a defined population group the maintenance of an age-sex register is essential.

The norm for the population can be taken from the figures of the Registrar-General, but the individual pattern of various practices varies considerably from a preponderance of young people in a practice in a new estate or new town to one with many elderly people in towns like Bournemouth or Budleigh Salterton. When presenting the results of investigations into morbidity and mortality this age-sex structure must be considered.

The development of the age-sex register has been described by Pinsent (1968). Initially it took the form of a loose-leaf ledger, but this has now been largely superseded by the 12.7×7.5 cm. ($5'' \times 3''$ A.S.R. 2a; or the 6.2×7.5 cm. ($2\frac{1}{2}'' \times 3''$; A.S.R. 2) record cards produced by the Birmingham Research Unit of the Royal College of General Practitioners. The introduction of computerised registers has not obviated the need for manual recording of this information, a preliminary task before data processing, and the College cards are most suitable for this.

The study

As the age-sex register cards (A.S.R. 2 and 2a), are obtainable only from the Birmingham Research Unit of the Royal College of General Practitioners, a study was undertaken to discover how those doctors who obtain the cards from the Research Unit were using their registers. Is it a useful tool in running a practice—or is it merely a status symbol?

A questionnaire with a stamped addressed envelope was sent to 320 practices who had ever requested these cards. Of the 246 practices (77 per cent) which replied, 17 had stopped using it and 66 has not yet completed their preparations. One third of all the practices using a register were participating in the National Morbidity Survey (N.M.S.) conducted by the Royal College of General Practitioners and the Office of Population Censuses and Surveys (table 1). Five who only participated in the first year of the National Morbidity Survey and had ceased and were excluded from the following study as they no longer used their register (table 1).

Starting and maintaining the register

To start an age-sex register in an established practice costs at least £50 and is a formidable task which has daunted many. It can disrupt the organisation of the records and require many hours of extra work by secretarial staff. In some areas the family practitioner committees of the National Health Service will undertake to prepare a register either free of charge, if a research

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TABLE 1
ANALYSIS OF PRACTICES USING AGE-SEX REGISTERS

	<i>Numbers</i>	<i>Per cent</i>
National morbidity survey—both years	46*	28
National morbidity survey—first year only	5	3
Others	115	69
Total	166	100

*Only 43 questionnaires completed in full.

project is envisaged, or for a small fee. With the added burden imposed by the reorganisation of the National Health Service it is less likely that they will be able to undertake this task in the future.

There is much to be said for the compilation of a master register on a central computer for the country as a whole in which each doctor, or practice, can be identified. It would be a relatively simple matter to print out a register as and when required.

It cannot be over-emphasised that unless the information is recorded accurately and the register maintained the whole exercise will be a complete waste of time, money and energy. A system of ensuring that the cards are completed on registration and removed when the medical record cards are recalled by the family practitioner services has been described elsewhere (Pinsent, 1968).

It was interesting to see at what stage practices enter the definitive information about patients on to the register (table 2). Many patients register without having an E.C.4. and therefore they

TABLE 2
TIME OF RECORDING DATA IN REGISTER

	<i>Per cent</i>	
	<i>Practices in national morbidity survey</i>	<i>Others</i>
On registration	51	27
On acknowledgement by E.C.	16	17
On receipt of E.C. 5 or 6	33	48
No information	—	8
Total	100	100

do not have their National Health Service number; others register on behalf of the whole family and may not be sure of all the dates of birth. Hence, the age-sex cards should be checked with the medical record cards before they are finally filed in the register.

Included in the basic data are the address, marital status, and social status (or occupation) of the patient. Of these three the last, the social status, is the hardest to ascertain and update and in the latest national morbidity survey this information was no longer required. A change of address is the easiest to record, but it is all too often forgotten, while changing the marital status is relatively easy in the case of the female patient but not so for men; nor in cases of divorce or separation, and again it is easily forgotten in widowhood.

Even if it were possible to record accurately the occupation of the patient on registration, changes in occupation are so frequent in many urban industrial areas that it is difficult to update this information. The frequency with which this information is recorded and updated is shown in tables 3 and 4.

TABLE 3
PERCENTAGE OF PRACTICES RECORDING
SOCIAL STATUS AND MARITAL STATUS

	<i>Per cent</i>	
	<i>National morbidity survey</i>	<i>Other</i>
Social status	30	26
Marital status	63	60

TABLE 4
PERCENTAGES OF PRACTICES UPDATING AGE-SEX REGISTERS

	<i>Per cent</i>	
	<i>National morbidity survey</i>	<i>Other</i>
Address	91	88
Social status	16	14
Marital status	88	63

Analysis of registers

The counting of the cards is a tedious and laborious task. It has been suggested, earlier, that a computerised master age-sex register would be able to print out such an analysis as required and the Office of Population Censuses and Surveys, at Titchfield regularly produces such a print-out for those practices participating in the national morbidity surveys. Those practices which are not participating in the survey have to make their own arrangements. Only 57 regularly (i.e. at least annually) analyse their registers, the majority doing so by hand. Some practices keep a running weekly total but it is a useful check to do a full count regularly. The total figures, and those for the over 65s, can be checked against the figures from the family practitioner services.

Using an age-sex register

The register can not only be used for research purposes, but can become an integral part of practice organisation. In my practice some of the additional boxes on the front of the card (36-61) are used for recording general data about the patient, while the whole of the reverse is used for preventive medicine. The boxes on the back (A-L) are used to record immunisation procedures and the remaining blank space for keeping other information. Not only are the two sexes kept in separate files and indexed in years but all children under five, girls approaching their eleventh birthday, and women in their thirty-fifth year are further divided into months. By this means a rapid call-up system for immunisation (including rubella) and screening at the appropriate age can easily be done. These screening examinations are then recorded on the card using a rubber stamp. When, finally, a patient dies a brief history, the cause of death and the post-mortem findings are recorded. The cards of all patients who have left the practice are kept in a separate file indexed according to the reason.

The respondents were asked whether they used the register for all or any of four specific procedures and whether or not they participated in any general or individual research project.

These results are shown in table 5. It can be seen that those not participating in the national morbidity survey undertake more preventive medicine, although this does not necessarily apply for immunisations, where an increasing number of areas are using a computer to recall children. The developmental screening of infants as a routine procedure does not appear to have become generally acceptable in general practice and the reasons for this are probably many and varied and will not be discussed here. However, there does appear to be a case for the fuller use of the register in this sphere of medicine particularly as screening procedures are not once-and-for-all procedures, but part of a continuing series of regular examinations to identify and possibly treat any abnormality which is discovered.

TABLE 5
PERCENTAGE USES OF REGISTERS

	<i>Per cent</i>	
	<i>National morbidity survey</i>	<i>Other</i>
1. Immunisation	40	50
2. Developmental screening	14	14
3. Cervical cytology	37	57
4. Health checks	14	27
5. Research projects	40	36

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