more data from many more practices. Nevertheless, at first sight these findings appear to go a long way in refuting one of the main conclusions of the Black Report.

Doctor variability

Crombie also discusses the impact that doctor variability has on health services. For years it has been apparent, partly through earlier papers from the Birmingham Research Unit,[7] that there are wide differences in the way in which doctors work: almost any variable—whether it is the use of investigations, referral rates or the reported prevalence of some diseases—appears to change between practices and even between partners within the same practice. Crombie has now quantified this variation and greatly clarified its importance by setting doctor variability in contrast to some other variables. He has discovered that the variation in care arising from the age of patients, from their sex or even from their social class is dwarfed by the variation in care arising from the doctors themselves. In other words, the doctor emerges as the single most important variable and one that affects almost all other aspects of general practice care.

The inference from this finding is enormous. Most of the costs of the National Health Service go on hospital care and only 5 or 6 per cent on general practice care,[8] yet it is general practitioners who are the main determinants of hospital use; and there are differences in the referral rate between general practitioners, as low as 5.7 per cent of the population at risk on the one hand and as high as 21.7 per cent on the other. Since Ashford and Pearson showed that patients once referred to hospital for any reason were more likely to be cross-referred or admitted and thus attract costs to the health service,[9] the initial referral has been seen as increasingly important. The paradox emerges that one of the most important factors affecting all hospital costs may lie outside hospital services altogether. If this is so, and there is much evidence to support the theory, then the implications for the education of general practitioners will get greater and greater. Far from cutting section 63 budgets by 6 per cent, governments may wish to increase the budget once they realize that education is likely to be the only answer to cost-containment in primary health care.

Dr Crombie has provided a fitting memorial to Dr R. M. S. McConaghey, former Editor of the *Journal,* and he can be congratulated on delivering a major academic lecture using complex and sophisticated methods which have led him to two extremely important conclusions.

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Note

Social class and health status: inequality or difference. Occasional paper 25 is available from the Publications Sales Office, 8 Queen Street, Edinburgh EH2 1JE, price £3.50 including postage. Payment should be made with order.

Continuing Learning in Practice Project (CLIPP)

'CONTINUING education, in the Oslerian sense of life-long learning, has long been an accepted feature of general practice.'[1] It is 'the process by which doctors keep up to date with advances in medicine and improve their practice, and it covers a range of activities.'[2]

With the attainment of the College's intermediate goals in relation to early postgraduate training for general practice—the long-term aim remains the implementation of the recommendations of the Royal Commission on Medical Education[3]—it is appropriate that increasing attention should now be directed to the continuing education of the established practitioner.

In developing 'a range of activities' the educational principles that have been learned and tested in vocational training can, of course, be applied but in ways that will meet the wishes and the needs of the established practitioner and recognize the constraints that limit his freedom, for 'there seems to be little doubt that postgraduate education for general practitioners has yet to develop its most satisfactory form and content.'[4]

In an attempt to make the structure of continuing education more attractive the Scottish Council for Postgraduate Medical Education undertook a survey in 1979[5] of Scottish general practitioners to seek their

views on the future provisions they would like to see for their own continuing education. A random one in five sample of principals produced an 80 per cent response—without the need of reminders. In relation to the preferred learning methods 'reading at home' was rated the most highly by 73 per cent of doctors, and this preference was not significantly influenced by distance from a postgraduate centre. This finding is consistent with that of Pickup and colleagues,[6] who, in a Nottinghamshire survey, also in 1979, found that 140 hours a year were spent in reading journals and periodicals by the average practitioner, while half of all general practitioners in the survey spent less than 10 hours a year at sessions specially designed for postgraduate education under section 63. Wood and Byrne[1] in 1977—the last year before the financial incentive to attend was abolished—found that the average general practitioner in England and Wales spent only three and a half hours per annum on section 63 courses.

Small group teaching is now widely accepted as perhaps the most valuable method of achieving behavioural change among general practitioners. The Scottish survey,[5] however, showed that small group methods were preferred by only 23 per cent of respondents, although opinion varied widely and was probably influenced by experience of this method of learning. Trainers, for example, were significantly more in favour of small group methods than nontrainers, and this finding confirms that of Reedy and colleagues,[4] who, in a survey of postgraduate education in the Northern Region, found that while 65 per cent of vocational trainees considered group discussion to be 'very valuable', only 43 per cent of other doctors did. Certainly it is the method of choice on most day-release courses, but it depends for its success on skilled leaders such as course organizers trained on the Nuffield courses[7] to which have recently been added those arranged by Marinker and the MSD Foundation. Groups certainly permit interaction between participants and incorporate peer review as a built-in form of assessment, which is an integral component to any educational activity. The constraints of time and geography, together with a shortage of skilled group leaders, however, place limitations on the extent to which group teaching can meet the needs of most general practitioners.

In relation to educational content, recent advances in the diagnosis and treatment of disease was supported by 82 per cent of the respondents in the Scottish study,[5] while clinical developments in general practice was favoured by 62 per cent. Similar findings were reported by Pickup[6] and by Reedy[4]. The most frequent adverse comment related to provisions for continuing education with regard to the special difficulties encountered by isolated doctors and the inability to find adequate time for continuing education because of overwork.

With all these findings in mind the Scottish Council of the College has taken an initiative, within the Education Division, to develop a system of continuing education. This system relates the experience of individual practitioners in their own practice with a structured distance learning programme designed to meet their learning needs identified in group discussion, and to provide appropriate reference material and a personalized follow-up advisory service.

Groups have now been set up in the Scottish faculties, each group considering a defined clinical area, with the help of an invited consultant to act as a specialist resource. The group reviews its own cases in the specific clinical area and identifies problems, with particular reference to the application of recent advances in management. The case material, with the group's comments, is then passed to the Centre for Medical Education in the University of Dundee, where a programme director and research assistant develop the material under the guidance of Professor Ronald Harden. The resulting distance learning programme is tested by members of the original faculty and this extended peer comment is then incorporated in the final programme to be distributed to members of the College who wish to receive it, as well as to any other general practitioners. It is intended that there should be 10 issues per year, each issue identified with the work of a faculty but together following a systematic approach to clinical topics.

This College initiative in the field of continuing education incorporates the educational principles listed by Kemp.[8] The programme allows learners to identify the content of the learning programme. The advantages of group discussion are therefore available not only to the participants but later to others who are provided with self-assessment and self-learning material which should be relevant and available to them in their own homes or surgeries either for individual use or as resource material for group discussion. Already there have been encouraging reports of the enthusiasm being shown in the faculties.

This Continuing Learning in Practice Project (CLIPP) therefore represents the development of a form of continuing learning available, if wanted, to general practice where 'every doctor should be free to choose those forms which best meet his own needs and so suit his own circumstances'.[3] Responsibility for the overall content of the programme rests with a widely representative editorial board responsible to the Education Division. The programme will run for a trial period of three years and, if successful, faculties throughout the UK will then be invited to contribute material. The substantial cost of producing and distributing the programme is being offset by a grant to the College of a quarter of a million pounds over the three-year period from Glaxo Pharmaceuticals Limited, a British company that has generously and consistently supported the College since its formation.

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Data-linked groups: a method for continuing professional education

The relationship is reviewed between standards of performance and the objectives of continuing education. The difficulties of providing continuing medical education which has objectives derived from appropriate standards are illustrated by reference to general practice.

A method is described in which a number of small groups of general practitioners attend separate but simultaneous evening meetings linked to a coordinating centre by a viewdata system. In this way the same problems from general practice are presented to each group. Participants respond first as individuals then contribute to group discussions, led by a tutor, from which a consensus approach to each problem emerges. This is transmitted and received along with those from other groups, at the coordinating centre. All responses to a problem are combined there and made available to the groups on viewdata later in the evening.

The validity of the exercise is discussed in relation to the type of problem used, the group-consensus and the combining of responses from a number of groups.

The method appears to be attractive to general practitioners, relevant to their work and capable of providing continuing education based on appropriate standards of performance.

Its possible application to continuing education in other disciplines is referred to.

Source: Stanley IM, Heywood PL. Data-linked groups: a method for continuing professional education. *Med Ed* 1983; **17**, 390-394.